

CORRELATES OF ADJUSTMENT TO UNIVERSITY
LIFE AMONG STUDENTS

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ΙΘΑΚΗ

Σαν βρεις στον πηγαίμο για την Ιθάκη,
να ευχέσαι ναναι μακρὺς ὁ δρόμος,
γεματος περιπέτειες, γεματος γνώσεις.
Τους Λαιστρυγόνες και τους Κυκλώπας,
τον θυμωμένο Ποσειδώνα μὴ φοβάσαι,
τέτοια στὸν δρόμο σου ποτε σου δὲν θὰ βρεῖς,
ἀν μὲνει ἡ σκέψις σου υψηλή, ἀν ἐκλεκτὴ
συγκινησῆς τὸ πνεῦμα και τὸ σῶμα σου ἀγγίζει.
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Νὰ ευχέσαι ναναι μακρὺς ὁ δρόμος.
Πολλὰ τὰ καλοκαιρινὰ πρωινὰ νὰ εἶναι
πού με τι ευχαριστήση, με τι χαρὰ
θὰ μπαίνεις σὲ λιμένας πρωτοειδωμένους.
Νὰ σταματήσεις σὲ ἐμπορεῖα Φοινικικὰ,
και τὲς καλὲς πρᾶματεῖες ναποκτησῆς,
σεντεφία και κοραλλία, κεχρὶμπάρια και ἐβένους,
και ἡδονικὰ μυρωδικὰ καθὲ λογιῶ, ὅσο
μπροχεῖς πῖο ἀφθονὰ ἡδονικὰ μυρωδικὰ.
σὲ πόλεις Αἰγυπτιακὲς πολλές νὰ πας,
νὰ μαθεῖς και νὰ μαθεῖς ἀπο τοὺς σπουδαγμένους.

Πάντα στὸ νοῦ σου ναχεῖς τὴν Ιθάκη.
Τὸ φθᾶσιμον ἐκεῖ εἶναι ὁ προορισμός σου.
Ἀλλὰ μὴν βιάζεῖς τὸ ταξίδι διόλου.
Καλλιτέρα χρόνια πολλὰ νὰ διαρκεσεῖ.
Και γέρος πῖα ναράξεις στὸ νησί,
πλούσιος με ὅσα κερδίσες στὸ δρόμο,
μὴ προσδοκῶντας πλοῦτη νὰ σε δῶσει ἡ Ιθάκη.

Ἡ Ιθάκη σὲδῶσε τὸ ὠραῖο ταξίδι.
Χωρὶς αὐτὴν δὲν θὰ βγαίνες στὸν δρόμο.
Ἀλλὰ δὲν ἐχεῖ νὰ σε δῶσει πῖα.

Κι ἀν πτωχικὴ τὴν βρεῖς, ἡ Ιθάκη δὲν σε γέλασε.
Ἐστὶ σοφὸς πού ἐγίνες, με τὸση πείρα,
ἤδη θὰ τὸ καταλάβες ἡ Ιθάκη τι σημαίνουν.

Κωνσταντῖνος Καβαφῆς, 1911

ITHAKA

*When you start on your journey to Ithaka,
then pray that the road is long,
full of adventure, full of knowledge.*

*Laistrygonians, Cyclops,
angry Poseidon-don'd be afraid of them.*

*You will never meet such as these on your path,
as long as you keep your thoughts raised high,
as long as a rare excitement
stirs your body and your spirit.*

*Laistrygonians, Cyclops,
fierce Poseidon-you won't encounter them,
unless you carry them within your soul,
unless your soul sets them up in front of you.*

Then pray that the road is long.

*May there be many summer mornings when,
with what pleasure, what joy
you enter harbors you 're seeing for the first time;*

Stop at Phoenician markets

to buy fine things:

mother-of-pearl and coral, amber and ebony,

sensual perfume of every kind;

as many sensual perfumes as you can;

and may you visit many Egyptian cities,

to learn and go on learning from those who have knowledge.

Keep Ithaka always in your mind.

Arriving there is your ultimate goal.

*But don't hurry the journey at all.
Better if it lasts for years;
so you are old by the time you reach the island
rich with all that you have gained on your way,
not expecting Ithaka to make you rich.*

*Ithaka gave you the marvelous journey.
Without her you wouldn't have set out.
But she has nothing more to give you.*

*And if you find her poor, Ithaka won't have fooled you.
Wise as you will have become, with so much experience,
you'll have understood by then what Ithakas mean.*

Constantinos Cavafis, 1911

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Abstract

The present thesis investigated correlates of psychosocial and academic adjustment to University life among students. Five cross-sectional and one longitudinal study were undertaken. During the first 3 studies the focus of interest was both on home and non-home students. During the latter three studies the focus shifted to first year home students only. Data was collected by means of a number of self-report questionnaires consisting mainly of a number of standardised and widely used personality, social support and well-being/adjustment measures. Results indicated that: (a) prior to arrival at University, non-home students, in comparison to home students, appear to be quite well equipped for the transition, in terms of social and personality attributes; however, they appear to lack substantial information regarding life in Scotland and academic standards of the host University, which might adversely affect their ability to cope with eventual academic demands; (b) Cultural Distance appears to affect non-home students' psychosocial adjustment during the early stage of the transition; (c) Non-home students experience not only the problems that home students report but also a number of additional difficulties which are closely related to cultural differences; (d) Correlates of Homesickness appear to differ for home and non-home students; (e) Personality (Neuroticism, Extraversion, Self-esteem, Social Inhibition and perceived Social Competence) and Dysfunctional Attitudes strongly influence the development of new satisfactory social networks, and the eventual psychosocial adjustment to University life; (f) Perceived Social Support is a significant predictor of psychosocial adjustment; (g) Academic performance does not appear to be related to any personality, social support or psychosocial adjustment variables; (h) Personality (Neuroticism, Extraversion), perceived Social Support and Loneliness appear to change significantly (in absolute terms) over the first academic year, but at the same time they remain relatively stable. Results are discussed in relation to the relevant literature, practical implications for students Counselling, and suggestions for further fruitful research.

PREFACE

Introduction

The present work deals with the investigation of correlates of adjustment to University life among students. The present research project was set up as an attempt to fill in gaps of earlier research in this area and to integrate recent research findings from other areas of Psychology into the adjustment of students.

Setting up a thesis

The main body of the thesis expands in 12 chapters which sum up the aims, results and applications-implications for future research.

In **Chapter 1** the literature on the adjustment of students, primarily on the adjustment of foreign -or non-home-students to University life is reviewed and definitions of adjustment, as well as earlier proposed models of psychosocial adjustment are discussed. Finally, the chapter closes with the definition of adjustment to University life which will be adopted in the present studies.

Chapter 2 reviews recent research in four major research areas in Psychology-namely in Loneliness, Happiness, Social Support and Personality. The motivation behind this presentation is the belief that all these areas, although they have different starting points, all reach similar conclusions. This work is an attempt to arrive at a 'synthesis' of work in this area and to view adjustment to University among students through this unifying approach.

In **Chapter 3** the most recent significant longitudinal studies in the area of students' adjustment to University life are reviewed and discussed.

In **Chapter 4** the basic conclusions of all the literature reviewed are summarized and the questions which have remained unanswered and require further investigation are raised.

In **Chapter 5** a number of basic methodological issues of research are discussed, together with a number of methodological and statistical 'precautions' taken for the present studies. The psychometric characteristics of the personality, social support, adjustment and well-being measures are presented. Finally, a pilot study is described and discussed.

The second part of the thesis consists of the chapters which present and discuss the empirical studies.

In **Chapter 6** the first cross-sectional study on the motives, expectations, individual differences and general well-being of home and non-home students prior to arrival at university is presented and discussed. The focus of the present study is mainly on the differences between home and non-home students, prior to arrival at University.

In **Chapter 7** the second cross-sectional study on the role of personality, perceived social support and cultural distance during the early stage of transition to university, for home and non-home students is presented and discussed. A subsidiary aim is to investigate the role of personality to the development of supportive relationships early on during the transition.

In **Chapter 8** the third cross-sectional study on the role of personality and social support in the successful psychosocial adjustment to university life of home and non-home students is presented and discussed. A subsidiary aim is to investigate the problems that students experience, and the correlates of homesickness both for home and non-home students.

In **Chapter 9** the fourth cross-sectional study on the role of personality, dysfunctional attitudes, and social support to the psychosocial adjustment of first year home students is presented and discussed.

In **Chapter 10** the fifth cross-sectional study on the role of personality, achievement motivation, coping and perceived social support in the successful psychosocial and academic

adjustment to university life is presented and discussed.

In **Chapter 11** the longitudinal study on the psychosocial adjustment of first year home students is presented and discussed. The main aim of the present study is twofold: (a) First, to investigate the distinguishing characteristics of the students who remained poorly adjusted during the whole academic year; and, (b) second to investigate the stability of personality, social support and loneliness during such a major transitory period in the life of young adults.

Finally, in **Chapter 12** the main points and basic conclusions of the present studies are summarized, and implications for student Counselling, as well as suggestions for future research are discussed.

PART I: LITERATURE REVIEWS

CHAPTER 1: Literature Review I

1.1 Introduction

This chapter reviews research dealing with the psychosocial adjustment of students to university life. Reflecting the emphasis in the published literature, the present review deals primarily with the adjustment of foreign students to their host culture and the problems associated with the intercultural contact. The first part of this review deals with problems related to conceptual definitions and usage, particularly to the use of the term 'adjustment'. The second part reviews the empirical studies on adjustment, and the third part discusses the different theories and approaches to the study of students adjustment.

1.2 Definitions

One of the earliest problems identified in this area of research was the problem of defining the basic concept of 'adjustment'. Given that the main subjects of research for many years were foreign students, professional scholars, Peace Corps volunteers, missionaries and businessmen, 'adjustment' in this area of research has become primarily associated with intercultural contact and the so-called 'culture shock'. Such adjustment has often been referred to as 'sojourner adjustment' (Brein & David, 1971), where 'sojourn' is defined as a temporary stay in a new place or as an unspecified amount of time spent in a new and unfamiliar environment (Bochner and Furnham, 1986), and 'sojourner' is every relatively short term traveller when permanent settlement is not the purpose of the sojourn (Church, 1982). The precise length of stay and the motive for travel are not specified and probably vary from case to case. Given that most studies on adjustment dealt with cross-cultural adjustment, other terms that have been used from time to time include 'cultural or cross-cultural adjustment' and 'cultural or ethnic assimilation', but they have been criticized and abandoned as being rather ambiguous or suggesting a more permanent assimilation to the host culture.

However, after so many years of research on the adjustment of the sojourner and more specifically the adjustment of foreign students (and to a lesser degree the adjustment of home students), there is still some confusion around the concept and the parameters associated with

adjustment making comparison of studies in this area a difficult task.

Researchers over the years have operationalized 'adjustment' in terms of academic /professional performance and satisfaction; problems and satisfaction with personal and social aspects of the sojourn experience such as the development of positive attitudes toward the host country; the development of an international perspective; and personal and professional growth, viewing many of these related indices of adjustment as part of the same adjustment process (e.g. Beals and Humphrey, 1957; Bennett et al, 1958; Seltitz, Christ, Havel and Cook, 1963).

A number of researchers believe that there are problems implicit in the term of 'adjustment' as such. First, they feel that there is a strong clinical flavour attached to the concept, assuming 'a breakdown in the normal, healthy psychological functioning of the individual, and the attendant stigma of failure and weaknesses in the part of the sojourner that is implicit in an approach that recommends therapy and counselling for those unable to cope with such experience' (Bochner and Furnham, 1986, pp.13). However, research has shown that in some cases there is actually a 'breakdown' in the normal, healthy, psychological and physical functioning of the individual and in many cases counseling and therapy have been proved to be quite useful in helping the individual to overcome difficulties and to be more satisfied and happy with the overall experience. Church (1982), mentions four adjustment indices, sometimes rather vague, which are most frequently discussed in the literature: (a) nature and extent of social interaction with host nationals; (b) general adjustment; (c) attitudes toward the host country and, (d) the general sojourner satisfaction.

Bochner and Furnham (1986) argued that 'adjusting a person to a new culture has connotations of cultural chauvinism, with the implication that the newcomer should abandon the culture of origin in favour of embracing the values and customs of the new culture' and suggested the substitution of the term 'adjustment' with the term 'culture learning' (Bochner,

1972; 1981; 1982; 1986). However, in every case that an individual has to cope with new circumstances, in a new unknown environment, some changes and modification in the perception and behaviour are rather necessary and inevitable, without that meaning that the person has to abandon whatever knowledge or behaviour they had learned and used until that time.

The basic problem of defining the concept of adjustment becomes obvious, given that each definition is clearly related to a particular theoretical model. Given these difficulties, we will try to reverse the order and the definition that will be used in the present studies will be discussed after reviewing the different approaches that have been used in the study of the adjustment process following a relocation. Most of this literature review refers unavoidably to the adjustment of sojourners in general, and foreign students in particular, given that the vast majority of studies dealt with this issue. However, as it will become obvious later, most of these approaches are applicable to the study of home, as well as non-home students.

Another major problem in understanding adjustment, is the fact that the approaches of various researchers have been so divergent, that it is rather difficult to interrelate their findings, or even to develop any consistencies among the factors deemed relevant to intercultural contact and adjustment to a new environment in general. In addition, even in the cases that investigators have studied the same constructs, the same factors or similar hypotheses, definitions seem to differ (e.g regarding adjustment, social support and so forth) and results fail to show consistent patterns (Bochner and Furnham, 1986). Several of the more common approaches that have been used include curves of adjustment (the U-curve and the W-curve), stages of adjustment, the concept of culture shock, general and theoretical personality typologies, background and situational variables and a number of more recent theoretical models 'borrowed' from other areas of psychology (Brein and David, 1971; Church, 1982; Bochner and Furnham, 1986).

1.3 Foreign students and Adjustment

Research in this area has been primarily confined to two groups which are considered to have a lot in common: students and voluntary workers. Both are usually young- usually in their twenties, well-educated and are supposed to be easily adaptable. Considerable research has been done also on the adjustment process of immigrants, which however consists of a very different group in terms of demographic characteristics, motivation and goals.

Most of the research on the sojourner adjustment has been undertaken in universities in the United States and Australia, and initially the main reason for increased interest in the psychosocial and academic adjustment of students was simply their large numbers - estimated by Zwingman and Gunn in 1983 to exceed one million. Relatively few studies have investigated the adjustment process of foreign students in Britain, and even fewer the adjustment process of home students (Fisher, 1981; 1987; 1988; Cutrona, 1982; Shaver et al, 1986; Brewin et al, 1989; Riggio et al., 1993). Possibly one reason for this 'indifference' regarding the adjustment of home students might have been the rather arbitrary assumption that foreign students experience many more and much more difficult problems than home students. A second reason may have been the trend of studying intercultural contact, the culture shock and their consequences focusing mainly on the difficulties that foreign students have to cope with.

1.4 History of research on foreign students

During the last 35 years, governments and foundations have supported a great number of students, enabling them to spend different periods -usually between a few months and a few years -attending educational institutions abroad, together with a high number of privately funded students. According to Bochner and Furnham (1986), three waves of research can be identified in this field. First, in the 50's, when it started to become clear that foreign students were experiencing many problems and difficulties, a great deal of rather superficial research, was initiated to address the issue. The most important studies are considered to be those supported by the Social Science Research Council and published by the University of

Minnesota Press, trying to identify the adjustment problems of foreign students in the United States (Bennet, Passin and McKnight, 1958; Lambert and Bressler, 1956; Morris, 1960; Scott, 1956; Selltitz, Christ, Havel and Cook, 1963; Sewell and Davidsen, 1961). At the same time, research in Britain with similar objectives was beginning to emerge, in a smaller scale (Carey, 1956; Singh, 1963; Tajfel and Dawson, 1965).

During the first period of research in this area, given that the flow of educational exchange was coming mainly from the developing world, the focus was mostly on the attitudes that foreign students formed during their sojourn toward hosts and toward western ideas, values and practises in general. The result was a great number of rather exploratory surveys. In Britain, Carey (1956) looked at the adjustment of the then 'colonial' students. Carey's research concentrated mainly on: (a) students' expectations, (b) the difficulties associated with university life in Britain, and (c) the reactions of the host students. Students were coming to Britain being excessively optimistic, and possibly influenced by their colonial education, subsequently disillusioned. Prejudice at that time was one of the basic problems experienced, but not anticipated, that made adjustment even more difficult. Tojfel and Dawson (1965) found similar results.

Later on, the tendency of a number of bright students to either not return to their home country after completing their studies, or to emigrate soon after returning from abroad- the so-called 'brain-drain' (Adams, 1968; Klineberg, 1981)- caused a lot of concern because it negated the very principles on which many educational exchange schemes were based (Bochner and Furnham, 1986). As a result a great deal of research was conducted to investigate this problem, the possible reasons leading to it, and possible ways for reversing it.

The second wave of publications constituted a large number of reports and bibliographies, related to the problems foreign students may experience (Parker, 1965; Shields, 1968). The

main criticism of all these reports and studies was that most of them were simply reporting a number of problems and difficulties experienced by foreign students, without putting them in a theoretical context.

The other very important point was that, although there was the very active controversy over the extent to which foreign students experienced unique or more severe problems than those experienced by home students (Blegen, 1950; Klein et al., 1971; Klinger, 1967; Otis, 1955)- which does not seem to have been resolved even today- very few studies included a control host-group, comparing the nature and degree of adjustment problems of home and foreign students (Walton, 1968). The few studies that directly compared the two groups tended to find differences between foreign and host students in values (Klinger, 1961; Singh Huang and Thomson, 1962) and in the extent to which certain adjustment problems were experienced (Colaccino, 1970; Jarrahi-Zaden and Eichman, 1970). Three good reviews that attempt to integrate some of the results include those by Bochner and Wicks (1972), Eide (1970), and Church (1982).

The third wave is seen as a more organized attempt to 'bring order to this chaotic field' (Bochner and Furnham, 1986), through the development of new theoretical models and the 'borrowing' of well-established theoretical models tested in other fields of psychological research, adopted in order to explain, understand and ultimately predict psychosocial and academic adjustment.

1.5 Early Concepts and Descriptive Approaches

1.5.1 The 'Culture Shock' Concept

One of the early and most widely used concepts introduced in order to explain the adjustment difficulties of people who have to adjust to a new culture was the concept of 'culture shock'. 'Culture shock' was characterised as an 'occupational disease' suffered by people who are introduced suddenly to a culture that is very different from their own (Oberg, 1960; Church,

1982). Hull (1959) defined culture shock as a 'removal or distortion of many of the familiar cues of encounters at home and the substitution for them of other cues which are strange'. Oberg, who introduced the term in 1960, said that 'culture shock is precipitated by the anxiety that results from losing all our familiar signs and symbols of social intercourse'(p.177). These signs include all the different ways in which we orient ourselves to the situations of daily life: customs, gestures, social expressions and words. These cues are primarily 'automatic', learned reactions and are as much a part of one's culture as the language.

The culture shock concept implies that the experience of a new culture is an unpleasant experience or shock, because on the one hand it is unexpected, and on the other hand because it may lead to negative evaluation of one's own culture (Bochner and Furnham, 1986). According to Oberg (1960) there are at least six aspects of culture shock:

(1) Strain, due to the effort required to make the necessary psychological adaptations. (2) A sense of loss and feelings of deprivation in regard to friends, status, profession and possessions. (3) A feeling of being rejected by and rejecting members of the new culture. (4) Confusion in role, role expectations, values, feelings and self-identity. (5) Surprise, anxiety, even disgust and indignation after becoming aware of cultural differences. (6) Feelings of impotence due to not being able to cope with the new environment. It is noteworthy that most of these aspects of culture shock appear to be also relevant to any individual who has to adjust in a new unfamiliar environment after a transition (e.g. foreign and home students).

Although culture shock is not considered to be an 'enjoyable' experience-it is rather considered to be a confusing and disorientating experience-it is however most commonly viewed as a normal process of adaptation to cultural stress involving such initial symptoms as anxiety, helplessness, excessive fear, irritability and a longing for a more predictable and gratifying environment (Oberg, 1960; Lundstedt, 1963; Gullahorn and Gullahorn 1963; Foster 1962; Arensberg and Niehof, 1964; Adler 1975).

Some researchers have tried to improve and extend Oberg's definition of culture shock (e.g. Guthrie, 1966; Smalley, 1963; Byrnes, 1966; Higbee, 1969;). However in doing so, researchers simply seem to have placed the emphasis on slightly different problems - rather than actually trying to specify how, why or when different people experience or do not experience culture shock (Bochner and Furnham, 1986), taking into consideration individual and situational differences.

However dominant the concept of culture shock is in the 'adjustment' of sojourner literature, the majority of studies on educational exchange make little or no reference to the culture shock concept as such. Nevertheless, a number of more recent models trying to explain the problems of the adjustment process of foreign students have their roots in this concept. Culture shock has often been seen as a stress reaction where salient psychological and physical rewards are generally uncertain and hence difficult to control or predict. Thus a person is anxious, confused and apathetic until he/she has had time to develop a new set of cognitive constructs to understand and enact the appropriate behaviour (Bock, 1970; Hall, 1959; Lundstendt, 196; Hays, 1972; Bochner and Furnham, 1986).

More recent models (e.g. on homesickness) review and try to expand this notion to a cognitive model highly related to a sense of control over the unfamiliar environment. Central to the concept of shock are questions about how people adapt to it and how they are changed by it. Hence, there is an extensive literature of the stages of the adjustment process.

1.5.2 Descriptive Approaches

(a) Stage Descriptions

Oberg (1960) was one of the first researchers who attempted to describe stages of adjustment that sojourners go through in the host culture and on return to the home culture. He described four stages of adjustment:

(a) The Honeymoon stage, which is the initial reaction characterised by enchantment,

fascination, enthusiasm, admiration and cordial, friendly, superficial relationship with hosts. (b) The Crisis stage, which occurs when the initial differences in language, concepts, values, familiar signs and symbols lead to feelings of inadequacy, frustration, anxiety and anger. This stage is also characterised by hostile and emotionally stereotyped attitudes toward the host country and increased association with fellow sojourners. (c) The Recovery stage, which takes place when the crisis is resolved through increased language knowledge and ability to get around in the new culture and finally, (d) The Adjustment stage which is as complete as possible when anxiety is largely gone, new customs are accepted and enjoyed and work is becoming enjoyable.

Adler (1975) viewing adjustment as a transitional experience, reflecting 'a movement from a state of low self and cultural awareness to a state of high self and cultural awareness'(p.15) proposed five stages in the development of culture shock, with references to the developmental sequence of perception of the situation, emotional range, behaviour and interpretation. The five stages include: (a) a contact phase, (b) a disintegration phase, (c) a reintegration phase, (d) an autonomy stage, and finally, (e) an independence stage marked by the cherishing of cultural differences and relativism, increased feelings of trust, warmth, humour and empathy. The behaviour at that stage is seen as expressive, creative and actualizing. According to Adler, the individual who has reached this stage is expected to be better prepared for a third cross-cultural experience.

Other researchers have proposed other stage models; for instance Jacobson (1963) has proposed a nine stage model, Smalley (1963) a four stage mode, Garza-Guerrero (1974) and Lesser and Peter (1957) a three-stage model. However, there seem to be many problems with these stage models.

As Church (1982) argues in his excellent literature review 'is the order of stages invariant? Must all stages be passed through or some can be skipped by some individuals?' (pp.541-

542). Are these stages found only in the adjustment process of foreign students or can they be identified with home students as well? And if this is the case, then what variables contribute to this or that pattern of successful or poor adjustment?

(b) The U-curve and W-curve of Adjustment

The idea of the U-curve of adjustment has been attributed to Lysgaard (1955) in an attempt to describe in another -more graphical way- the stages of adjustment. The U-curve of adjustment depicts the initial optimism and elation in the host culture, the subsequent dip in the level of adjustment, followed by a gradual recovery to higher adjustment levels. Other early studies extended the U-curve to cover trends in attitudes and social interaction patterns over time (Sewell and Davidsen, 1958), favorability of images of the host culture (Cohelo, 1958) and academic adjustment over time (Scott, 1956). Gullahorn and Gullahorn (1958; 1963) proposed a W-curve process of adjustment, indicating that sojourners often undergo a re-acculturation process- a second U-curve adjustment process, when they return back to their home country (Church, 1982).

Other researchers re-examined their data for such trends. Chang (1973) Davis (1963;1971), and Greenblat (1971), Heath (1970) and Shepard (1970) found varying degrees of support for the U-curve. Becker (1968) found support that the U-curve may be more relevant for sojourners from European rather than from less developed countries. Finally, and maybe more importantly, Klineberg and Hull (1979) concluded that there was almost no cross-sectional support for the U-curve hypothesis. In addition, in the same study, a partly longitudinal study over one academic year of 20 foreign students in each of the 11 host countries, indicated that the U-curve occurs in a minority of students and it is not the rule.

Moreover, Church (1982) reviewing the studies which investigated the U-curve hypothesis, reached the conclusion that support for it is weak (Breitenbach,1970), inconclusive (Spaulding and Flack, 1976) and overgeneralised (Becker, 1968). There is no evidence to

suggest that all students start-off in the 'honeymoon phase' with a period of excitement and optimism (Becker, 1968; Selby and Woods, 1966; Klineberg and Ben Brika, 1972). Further on, although depression and anxiety seem to occur rather frequently, there is no evidence to suggest that all students pass through this phase (Klineberg and Hull, 1979). It is possible that a number of students may be depressed, anxious and under stress from the beginning throughout the academic sojourn, while other students may be quite happy and content with the experience, adjusting to the new culture right from the beginning. However, no systematic research seems to exist, focusing on which students are likely to experience problems and which students are likely to be happy and content from the beginning throughout the academic experience.

Another problem with the U-curve is that even the studies which seem to support the hypothesis, show so many differences in respect to the time parameters of the curve that the U-shape of the adjustment process seems almost meaningless (Bochner and Furnham, 1986). Some researchers refer to a 9-month period (Deutch and Won, 1963; Scott, 1956; Sewell and Davidsen, 1961), while others refer to a period of up to five years (Davis, 1963, 1971; Shepard, 1970). Or as Bochner and Furnham (1986) note 'where there are U-curves they are of dramatically different shape- some are flat, others tall and all are fairly irregular'(p.132). Another related problem that has been mentioned before is the choice of the dependent variables which are assumed to represent adjustment. Few studies have used the same measure of adjustment, which makes the comparison of results even more complicated.

Finally, although the U-curves description of adjustment, as well as the stage theories imply a within-individual longitudinal adjustment process, the great majority of the studies, were cross-sectional and the only well-organized longitudinal study which investigated the issue (Klineberg and Hull, 1979) does not give any evidence to support the U-curve hypothesis. It is clear that what is required are careful longitudinal studies trying to determine which individual aspects interact with which aspects of the situation to produce which pattern of

adjustment (Bochner and Furnham, 1986).

1.6 Empirical studies on Foreign Students' Adjustment

1.6.1 Studies on students' academic performance

In the 50's and 60's, a number of studies were published, at various University health services, focusing mainly on correlates of success and failure and mental psychopathology of home and non-home students. Hopkins et al (1957) looked at non-intellectual correlates of success and failure (having as a criterion passing all courses/ failing some courses or abandoning the course), and found that failed students: (a) had less opposite-sex friends, (b) were less likely to marry at college and, (c) had fewer friends. This study was considered to be one of the first studies that focused on the students social networks and social support.

During the late 1960's and early 1970's a number of studies took place, which according to Spaulding and Flack (1976) were aiming to develop methods of selecting those students who were more likely to succeed in American educational institutions (e.g. Allen, 1965; Burke, 1968; Chongolnee 1978; Ford, 1969; Kaplan, 1970; Moore, 1970; Telleen, 1970; Paraskevopoulos and Dremuk, 1968; Uehara, 1969; Slocun, 1984). Adjustment in this case was solely defined in terms of academic success and failure and the parameters taken into consideration were purely aptitude /achievement factors. Scores of English language proficiency were found to be consistently a good predictor of academic success, while other parameters such as academic achievement at home country proved to be good predictors, but not consistently. No research, to my knowledge, has been done on the relationship between global adjustment in university life, personality and academic performance, both with foreign students and home students.

1.6.2 Problems experienced by non-home students

Other studies have looked specifically at the problems and difficulties experienced during the transition to University, with the focus mainly on foreign students. The problems reported by

foreign students over the last 35 years seem to be more or less the same: language difficulties, financial problems, difficulties with the new educational system, homesickness, racial discrimination and so on. During the 70's and 80's, financial problems seem to predominate (e.g. Klineberg and Hull, 1979; Church, 1982).

Some researchers have tried to identify the most common areas of difficulty. Huang (1977) suggested four areas of problems experienced by foreign students: (1) Communication barriers, arising from unfamiliar and complex linguistic and paralinguistic features; (2) Shifting cultural gears as the student is forced to move between new and old cultural values, identity and so forth; (3) Replacing a social network of family, neighbours and friends at a particularly difficult time; (4) Multiple accountability to family, government or other sponsors, academic advisors and immigration officials.

One of the great controversies in the area is whether foreign students experiences problems which are related to his/her 'student status' or to his/her status as a 'foreigner' to the host culture (Coehlo-Oudegest, 1971; Walton, 1967, 1968; Church, 1982). The fact that very few studies have included a control group of host-nationals comparing the nature and degree of adjustment problems of foreign and host students (Walton, 1968), makes this controversy even more difficult to resolve. Some studies that have compared foreign and host students, have found differences in values (Klinger, 1961; Singh, Huang and Thomson, 1962) and in the extent to which certain adjustment problems are experienced (e.g. Colacicco, 1970; Jarrahi-Zadeh and Eichman, 1970). As Church (1982) reviews, studies in a psychiatric setting provide mixed support for the view that foreign students suffer from unique culture-based adjustment problems (Klein et al, 1971; Welson, 1956; Nickelly, Sugita and Otis 1964; Zurin and Rubin, 1967), and he suggests that foreign students, have many problems similar to those of other students, but in some cases they may also experience problems that are more uniquely culture-based or are at least aggravated by the stresses of the new cultural experience (Nickelly et al, 1964; Zurin and Rubin, 1967). This multiple nature of the foreign students'

adjustment is very well summarised by Furnham and Bochner (1982; 1986) who concluded that foreign students seem to face up to 4 sets of problems, from which only two are exclusive to them as opposed to native students:

(a) First, there are problems that would confront anyone living in a foreign culture, such as racial discrimination and prejudice in some cases, communication difficulties, homesickness, misunderstanding and loneliness.

(b) Second, there are the difficulties that face all late adolescents and young adults whether they are studying at home or abroad, in becoming emotionally independent, self-supporting and productive.

(c) Third, there are academic stresses when students are expected to work hard, often under poor conditions, with complex material.

(d) Fourth, the national or ethnic role of overseas students is often quite prominent in their interaction with host students.

Some of the most interesting and detailed studies are of particular student groups and although in this case there is the problem of generalizing the results to other student populations, they give a few interesting findings. In Britain, there is a number of studies on African students by Lambo (1960) and Noudehou (1982). Anumonye (1970) interviewed 150 African students and reported a number of sources of distress. Singh (1963) interviewed 300 Indian students in Britain in great detail and reported two broad categories of problems reported:

a) Emotional problems: Almost 50% of the students experienced unanticipated difficulties such as loneliness, homesickness, lack of training in looking after oneself. Emotional strain was significantly associated with adjustment.

b) Academic problems: related to language problems (especially in oral expression), to the higher standards of British universities and to difficulties in teacher-student relationships. Nearly 50% of the students experienced such difficulties, which seem to correlate significantly

negatively with adjustment. Finally, adjustment as such was reported to be related to place of residence, social class, duration of stay and social skills.

Another study by Boorke (1975), investigated the particular difficulties that Chinese students experience in the United States. Bourke interviewed 24 Chinese students with problems of adjustment and 24 students without problems, over a period of 4 years. He found that Chinese students were working harder and for longer hours than other students due to very high parental and personal demands. Lu (1989) also studied the adjustment process of Chinese students in Britain over one academic year, in relation to personality (extraversion and locus of control) and situational variables, and also supported the high levels of stress reported. Studies with African students, showed similar results as regards the perceived high demands from family on the students. Often these students reported that they were under a great deal of pressure to perform academically as well as possible in order their families not to lose respect in their communities (e.g. Anumonye, 1970).

Pruitt (1978) studied the problems experienced by sub-Saharan African students from a representative set of nine American campuses. In this partly longitudinal study, adjustment was determined by the degree of happiness and the absence of problems in eleven different areas. The major problems both at first and some months later were depression, tiredness, homesickness, irritability and racial discrimination. Initial problems were also reported in the areas of climate, communication with Americans, loneliness and food, but these improved markedly over time. No percentages or even numbers of students with problems are reported in this paper.

Bochner and Furnham (1986), conclude that 'it is therefore not surprising that many foreign students suffer from poorer health than the natives, as they often face additional stresses'. However, although this may be true to some extent, there are some other studies that contradict this notion, which will be discussed further on.

1.6.3 Students' Health problems

A number of studies have investigated specifically the health -related behaviours of foreign students. Some studies have looked specifically at the incidence of foreign overseas students visiting university health centres. Eldridge (1960), reported some of the high number of difficulties of overseas students in Leicester. Furthermore, in one of the most influential papers, Ward (1967) argued for the existence of a 'foreign students syndrome' which is characterized by vague, non-specific physical complaints, a passive withdrawn interaction style and a dishevelled, unkept appearance. He proposed the hypothesis that foreign students, depressed, anxious and 'culture shocked' have a tendency to somatise their psychological problems in order to avoid 'losing face', thus providing them with the justification to attend clinics for medical instead of psychological-emotional problems (Bochner and Furnham, 1986).

Rust (1960) at Yale university investigated parameters of mental health in students. Of the sample of students 25% complained of loneliness, more than 33% complained of nervousness and anxiety, and 10% of insomnia; for all of the students, these problems seemed to adversely influence their studies and social life. This study was one of the first attempts to look at the epidemiology of students' mental health, but did not go further than just describing some of the problems experienced.

Still (1961) at Leeds University, in a study with a control group of British students, investigated the incidence of different types of reactions of overseas students from many countries. The results of this study showed that while 14% of the British students showed evidence of psychological problems, with the foreign students the percentage was much higher: Egyptian (22%), Nigerian (28.1%), Turkish (21%), Iraqi (28.2%), Iranian (29.7%), Indian (17.6%) and Pakistani (18.7%). Still characterized nearly half of the cases as being hypochondriacal. More specifically he says that the 'hypochondriacal students almost continuously find some source of discomfort in this or that part of his body. Usually, the

physical signs of disease that can be found by the examining physician are extremely trivial or non-existent'(p.61). He also says that some of the very common complaints are weakness, nervousness, insomnia, several gastrointestinal problems, palpitations and chest pains, depression and numbness, and lack of concentration.

However, it is rather simplistic to characterize these foreign students as hypochondriacal, when many other factors may be involved in this behaviour that within one culture may seem to have all the characteristics of hypochondriasis. Willmuth et al (1975) and Gunn (1970) found that there was a higher incidence of digestive, dermatological and sexual problems in overseas as opposed to home students. In this latter study, *it is notable that foreign students* seem to have actually more health problems instead of just vague and 'unreal' complaints. Babiker and Cox (1980) showed similar results. Another study by Furnham and Trezise (1981) compared four groups of overseas students in Britain with two control groups of British students. Africans, Europeans, middle Easterners and Malaysians were compared with the British students on a standardized and reliable measure of mental health. Overall, results showed that overall overseas students had higher psychological disturbance than home students.

A number of factors may be related to the results of these studies. The fact that foreign students may be coming from a very different climate, as is the case with all the students in Still's sample, may actually make the students more vulnerable to health problems. In addition, lack of adequate information prior to attending the foreign University, e.g. about the climate, or even financial difficulties while the students are already at the host country, may interfere with their preparation (practical and psychological) for the long and cold winters. The difference of the hours of light between their country of origin and the host country may also contribute to their feelings of depression, numbness and weakness. No study, to my knowledge, has dealt with this latter point, although it may be a promising area of research given the developments on the study of this problem in the clinical area (i.e.

seasonal affective disorder; Kasper and Rosenthal, 1989). In addition, if we consider the changes in food, sleep and work habits, the reported weakness should be expected. Finally, the great geographical distance between home and university and the difficulty to visit family and friends - due to time and financial restrictions - especially during periods of crises /problems at home, may also adversely contribute to these feelings of numbness and depression that are often reported. Finally, the fact that of the studies in this area very few have included a control group of home students, makes it difficult to decide if the supposed problems of the non-home students are unique to them or not.

One might argue that it is also likely that the number of visits to the health centres is not a reliable indicator of actual physical or mental health for several reasons. First, there may be difficulties on the perception and willingness to use counselling or other professional help, not due to a fear of 'losing face' as has been suggested, but rather due to a lack of familiarity with such services. Second, it has been suggested from researchers who did find an increased number of visits to the doctor from non-home students (i.e. Babiker and Cox, 1980), that foreign students may simply utilise the opportunity of free and expert check-ups that may do not have in their countries. Third, the overseas students beliefs about illness may differ from those prevalent in the host country and diseases seen as trivial by one society may not be seen as such by members of another culture, so that newly encountered or relatively minor problems, could lead a higher number of foreign students to seek help than home students. Last, but not least, the fact that they are so far away from home, may make them seek help early on, because of fear of their health getting worse in a non-familiar place, away from supportive relatives and friends who could take care of them. In conclusion, all the above suggest the need for well-organised studies on the subject, if reliable results are to be reached.

1.6.4 Culture Distance

Some researchers have investigated the concept of Culture-Distance. Babiker and Cox (1980)

hypothesised that the degree of alienation, discomfort and concomitant psychological distress could be a function of the distance between the students' own culture and the new culture. Accordingly, they devised an instrument-the Cultural Distance Index (CDI)-which they felt would provide a fairly objective assessment of disparity between the two cultures, uncontaminated by the subjects' own perception of these differences or feelings about them. The items are divided into categories related to different variables such as food, climate, clothes, religion and social structure. Their sample consisted of 121 overseas students at Edinburgh University and the main aim of the study was to investigate the possible relationship between Culture Distance, medical consultations, symptoms and academic success in examinations. Culture Distance was found to be highly correlated with anxiety during the easter term and the total number of medical consultations during that academic year, but not with examination success. Babiker and Cox argued that these results, as regards the relationship between CDI and medical consultation, ($r=.26$, $p<.01$) may mean that: (a) students with large Cultural Distance may perceive the health centres as an appropriate 'safe haven'; or (b) that they actually do suffer more physical illness; or (c) that the opportunity of free medical check-ups is being utilised. However, all these suggestions are equally feasible without any particular evidence to support any one of these. The CDI was found to be correlated with anxiety ($r=.23$, $p<.02$) but it did not correlate with more specific symptoms such as tiredness or headaches. The CDI may be a useful instrument for future research in this area.

Later on, Furnham and Bochner (1982) in a similar study, found that the degree of difficulty experienced by sojourners in negotiating everyday encounters is directly related to the disparity (or culture distance) between the sojourners culture and the host culture. Despite the possible significance of culture distance, at least initially at the transition, no studies to my knowledge have investigated in depth the role of cultural dissimilarity to the development of new social relationships and the eventual psychosocial and academic adjustment.

1.6.5 Social Support, Social Interaction and Adjustment

Another promising area of research is the role of social support and social networks in the adjustment process. Early studies that had studied non-intellectual correlates of academic success and failure (e.g social correlates), found that failed students had significantly fewer close friends and fewer opposite sex friends. As Church notes (1982) many researchers consider positive social interaction with host nationals a necessary condition for successful adjustment (Bennet et al, 1958; Creslak,1955; Klinenberg 1970; Hull ,1978; Klinenberg and Hull, 1979; Colacicco, 1970; Bochner and Furnham, 1986). The very influential, international, longitudinal study by Klineberg and Hull (1979) concluded that the two most important factors for the successful adjustment of foreign students at University, were prior experience of sojourn and meaningful social contact with local people.

One of the problems again in this area of research is how adjustment is being defined, measured and evaluated. For many researchers, adjustment seems to be associated with the development of favourable attitudes toward the host country and people, and reduction of prejudice for both groups. Several studies have given some evidence to support the 'association hypothesis', where more social interaction with host nationals is associated with more favourable attitudes toward the hosts, and according to this view, eventual adjustment (Basu and Ames, 1970; Chang, 1973; Hassan, 1962; Heath, 1970).

Another problem that emerges in this area, similar to the one mentioned above, is the numerous ways in which the variable of social interaction has been defined and measured. Given this problem, it is rather difficult to compare the results of studies on this issue; the results seem to differ from study to study, according to the type of assessment procedures that have been used to measure social interaction: in terms of frequency, range, depth of relationships and intimacy, or by indices such as the number of friends, the number of close friends, the number of host friends etc. In addition, the cultural differences may be involved in the rating of somebody as a close friend or acquaintance, making the study of the students' 'objective' social networks difficult.

Despite the difficulties involved in the study of students' social networks, a great deal of research has been done on this subject, mainly in universities in Australia and the United States. (Duck, 1977; Duck and Craig, 1978; Duck and Spencer, 1972; Klineberg and Hull, 1979). Bochner and his colleagues have done a lot of research on foreign students' social networks (Bochner, Buker and McLeod, 1976; Bochner, McLeod and Lin, 1977; Bochner and Orr, 1979; Furnham and Bochner, 1982). Studies on students' friendship networks, using the 'small world' method led to the identification of four basic determinants of social relations among students: (a) culture similarity as the most important, (b) sex similarity as the second most important, (c) organizational affiliation, and finally, (d) residential propinquity (Bochner et al, 1976). Other researchers studied the relationship between structure of residence and formation of friendships among students (Yimon et al, 1977).

Bochner et al (1977) developed a 'functional model' of overseas students' friendship patterns, according to which sojourners belong to three distinct social networks:

(a) A primary, monocultural network consisting of close friendships with other compatriots. The main function of the co-national network is to provide a setting in which ethnic and cultural values can be rehearsed and expressed. (b) A secondary, bi-cultural network, consisting of bonds between sojourners and significant host nationals such as academics, students, advisors and government officials. The main function of this secondary network is to instrumentally facilitate the academic aspirations of the sojourner. (c) A third, multicultural network of friends and acquaintances. The main function of this network is to provide companionship for recreational, 'non-cultural' and non-task oriented activities (Bochner and Furnham, 1986, p.128).

Pruitt (1978) in an attempt to investigate predictors of adjustment, concluded that for his subject group of African students in American universities, assimilation with Americans was the most significant factor and maintenance of overall religious commitment the second most significant factor. Pre-departure knowledge seemed to facilitate adjustment. Women and

students who had left their spouse at home country, seemed to experience more problems.

One very important point however which requires further investigation is a 'detail' in Pruitt's (1978) study: 'students who reported problems in one area tended to report problems in all others'. This may be partly due to a negative response bias. But on the other hand, it may indicate the existence of a personality factor, regarding the way that situations and self are being perceived by the individual and the way by which the individual feels and reacts.

Hull (1978) and Klineberg and Hull (1979) in their international study of students adjustment, proposed the 'modified culture contact hypothesis' that relates increased social interaction with host students with successful adjustment to the host culture, reporting of less homesickness, less loneliness and fewer problems. Although these results are very interesting, the fact that no personality variables had been measured, suggest the need for such measures to be used in future research and the relationship found between social interaction, support and personality to be investigated within this context.

It is remarkable, that although most of the results from several studies (e.g. Sewell and Davidsen, 1961; Antler, 1970; Richardson, 1974; Selltitz and Cook, 1962; Au, 1969) agree on the positive significant relationship between social interaction with host students and successful adjustment/general satisfaction, none of these studies have looked on possible underlying factors, that may 'connect' these two obviously related variables, such as individual differences in personality factors. In fact very few studies seem to have investigated the hypothesis that individual differences may make it more easy (or more difficult) for some students to come in contact with host students, or with other people in general and to built satisfying relationships.

In addition, there are extremely few studies on the role of social support in general in the adjustment process not only of foreign students but also of home students. Is social contact

of foreign students with host nationals useful only as a way of learning the language and culture, or is it important in other respects as well? For instance, the provision of a sense of belonging to a group, a boost in the individual's self-esteem, the provision of practical aid and feedback and so on. Is it more important for foreign students than for home students? Finally, are cultural differences a burden in developing meaningful and satisfying relationships, or are other factors such as personality individual differences more influential?

1.6.6 Background variables and adjustment

Many background variables have been investigated (DuBois, 1956; Hull, 1978; Klineberg and Hull, 1979) in relation to sojourner adjustment. The results of these studies are sometimes conflicting, something which may be due partly to the different measures for the same construct. The most widely investigated variables are: age, nationality, previous experience of sojourn, social class, educational background, social status and language proficiency.

(a) Language Fluency

Smalley (1963) referred to the 'language shock' as an alternative to Oberg's (1960) definition of culture shock, placing emphasis on the problems of language use in another culture. Later on, other researchers studied the effect of language proficiency on the level of adjustment and satisfaction (Sewell and Davidsen, 1961; Ursua, 1969; Gullahorn and Gullahorn, 1966; DiMarco, 1974) and the relationship between language proficiency and social interaction with host nationals (Sewell and Davidsen, 1961; Blood and Nicholson, 1962; Gullahorn and Gullahorn, 1966; Deutch, 1970).

Most of these studies have found a positive relationship between language and socializing with host nationals and as Church (1982) points out, it is very likely that beyond a certain minimal level of competence, the relationship between language fluency and social interaction is reciprocal with greater language confidence leading to a higher degree of social participation and sharing with host nationals, leading in turn to an improved use of the

language (Gullahorn and Gullahorn, 1966; Selltitz et al., 1963).

(b) Age

The relationship between age and adjustment has been studied by a number of researchers, leading to the consistent finding that: a) younger sojourners and undergraduates have more social contact with host students (Deutch, 1970; Gullahorn and Gullahorn, 1966; U.S. Advisory Commission, 1966; Hull, 1978). This may be partly due to the fact that undergraduate students usually live in shared rooms in halls of residence, and the fact that they have to attend lectures, work in teams for several projects etc. b) Older sojourners and postgraduates tend to be more satisfied with the academic sojourn and the overall experience (Gullahorn and Gullahorn, 1966; Hull, 1978), which may be partly because of the high motivation and determination of older students. In addition, older students are more likely to have higher personal control over the decision to go and study abroad and this may influence the feelings of satisfaction with the sojourn experience. However, no studies can be found that have investigated these suggestions and thus they remain hypotheses for future studies.

(c) Sex Differences

Surprisingly, there are very few studies on sex differences of the adjustment problems/ general satisfaction and emotional/ psychological and physical well-being. Furthermore, the results from different studies are sometimes conflicting, possibly due to the different measures and criteria that have been used. Kidd (1965) at Edinburgh University found that women had better mental health than men. Some studies of foreign students did give some significant sex differences, suggesting that female students may experience more problems than male students (Fong and Peskin, 1969). However, there are only few recent studies that looked specifically and in more organised manner to possible sex-related differences. Moreover, very few studies have investigated sex differences in the study of adjustment of home students (Fisher et al. 1987; 1988; Cutrona et al., 1982; Shaver et al., 1986; Brewin et al., 1989).

(d) Nationality

One of the first variables that researchers studied was nationality. Early studies focusing on the adjustment of Scandinavian students in the United States (Lysgaard, 1955; Scott, 1956; Sewell and Davidsen, 1961), found that these students did not experience major difficulties, while other studies looking at the adjustment difficulties of African, Oriental and Indian students indicated that they may experience considerable difficulties. These studies also suggested that there are cultural patterns in the typical defence mechanism used by different nationals.

The results from U.S studies relating national origin to social interaction are quite consistent, indicating that Canadians and West Europeans are more socially involved with American nationals, while students from the Far East seemed to be least involved socially and tend to report a higher number of adjustment difficulties. Indians, Black Africans, Latin Americans and Middle Easterners appeared to be somewhere in between the two extremes (Deutch, 1970; Hassan, 1962; Hegazy, 1969; Shepard, 1970; Hull, 1978). Finally, studies relating nationality and sojourn satisfaction (Shepard, 1970; Hegazy, 1969; Hull, 1978) give very inconsistent results, and as Church notes (1982), they probably reflect the multidimensional nature of the construct of 'satisfaction' and 'adjustment'.

(e) Previous Experience of Sojourn

One of the variables that has also been studied a great deal is previous cross-cultural experience, with many researchers assuming that previous experience of living /working or studying in another culture for a while, would facilitate future adjustment, although some culture shock may still occur (Arensherg and Niehoff, 1964). Other researchers argue that previous contact with another culture may trigger existing negative stereotypes and reinforce prejudice and defence, which may later inhibit, successful adjustment (DuBois, 1956). Consequently, one might conclude that it is not actually the previous cultural contact as such which is important, or the length of the time spent abroad, but rather the depth and intimacy

(Amir, 1969), accuracy (Basu and Ames, 1970) and similarity (Bochner, 1972; David, 1973) of the previous cultural experience (Church, 1982). There are some studies that seem to support indirectly these theories. For instance, studies that have examined the effects of cross-cultural training and simulation exercises on subsequent adjustment (e.g. Fiedler et al, 1971; Mitchell, Dosset et al., 1972; Worchal and Mitchell, 1972) support the importance of accurate previous knowledge of the host culture for successful subsequent adjustment.

A number of other researchers have argued for the possibility that sojourners who are more travelled may be a select group. Those who do not manage to cope with the demands may not sojourn again. The most well-travelled tend to be western Europeans with an urban background and the least travelled are more likely to be Asians and to come from rural areas (Hull, 1978). Church (1982) concludes that 'nationality, language, cultural distance and field of study are confounded and may underlie the increased interaction and decreased adjustment problems of sojourner with previous cross-cultural experience'. Although this argument seems valid given the empirical evidence, there is also the hypothesis that previous experience of living or studying abroad may facilitate the adjustment to a new culture or in general to another non-familiar environment. Problems that have been experienced and coped with, may not be seen as very difficult to handle or very distressing and problems such as occasional loneliness, homesickness or depression may be seen as 'natural' and 'indigenous' to the adjustment process, and consequently being anticipated and expected, may not cause a great deal of dissatisfaction and distress. This argument is in agreement with a more general framework which suggests that life experience might increase resourcefulness and the resources may 'immunize' the individual against subsequent adverse experiences later on in life (Rosenbaum, 1978). In other words, a history of mobility might be expected to fortify a person by providing experiences which can be put to good use at a later date (Church, 1982). Up to day the only study that seems to support this notion (Fisher, Murray and Fraser, 1986) was based on data collected from a school population and thus difficult to generalise.

(f) Field Performance and Adjustment

Another variable that has been studied, to a lesser degree though, is academic performance. The hypothesis is that since the primary goal of many foreign students is academic (usually to get a good degree, or to gain academic/professional expertise) it is likely that there will be a strong relationship between academic performance and adjustment. Research at a 'high pressure university'-where competition is very high and performance excellence is one of the most significant criteria for acceptance- showed that the major determinant of students adjustment was academic success, with morale following the ups and downs of the academic year (Selby and Woods, 1966; Hull, 1978).

Early studies suggested that positive adjustment is found to contribute to satisfactory academic achievement (Rising, 1968; Sharma, 1971). Boyer and Sedlacek (1988) investigated the possible variables that may be related to academic success, as an indicator of adjustment. Sedlacek et al (1976; 1977) in a number of earlier studies identified a set of eight non-cognitive variables, that are related to college grades and persistence, especially for minority and non-traditional U.S. students (mature or adult students with special needs). In 1984, Traley and Sedlacek devised the Non-Cognitive Questionnaire (NCG) which consisted of eight non-cognitive dimensions: a) self-confidence, b) realistic self-appraisal, especially regarding academic abilities, c) community service, as demonstrated by involvement in local community activities during the years preceding college, d) knowledge acquired in a field, including unusual or culturally related ways of obtaining information and demonstrating knowledge, e) successful leadership experiences in any area related to cultural background, f) preference for long -range goals over short -term, immediate goals and ability to defer gratification to obtain goals, g) ability to understand and cope with racism and finally h) availability of a strong support person to turn to in crises.

It was also found that community service and understanding racism significantly added to the prediction of persistence for each of eight semesters, while self-confidence and availability of a strong support person were predictive of grades for all semesters examined.

Self-appraisal (for the 1st, 2nd and 7th semester), understanding racism (1st semester), leadership (2nd and 5th semester) and preference for long-range goals (8th semester), significantly predicted the average year's grades.

One of the problems with the study of academic performance is that it is significantly related to intelligence, motivation, external pressures and negative life events, during the academic year, and that a positive relationship between academic performance and adjustment may be simply nothing more than an indicator that those two factors covariate, without necessarily suggesting that the one may cause the other. More research is definitely required in this direction.

(h) Urban-Rural Distinction

Attempts to investigate the important aspects of different living arrangements have been shown to be rather difficult. Klineberg and Hull (1979) showed that in some countries there were fewer practical problems (such as accommodation-related difficulties) than in other countries but they did not study the rural-urban distinction. Although there are some studies on this topic based on data collected from Peace Corps volunteers (Guskin, 1966; Maryanov, 1966) and students (Selltitz et al., 1963; Jammaz, 1973) there are no consistent results. Furthermore, individual differences and preferences are rather ignored in such studies.

1.7 Personality variables and sojourner adjustment

Again, the different definitions of adjustment make the comparison of studies that relate individual differences and adjustment rather difficult. Since the study of individual differences in relation to adjustment is one of the basic goals of this study, a number of studies on sojourn adjustment will be reviewed briefly. A more complete discussion of recent research on personality will follow in Chapter II.

One of the most reoccurring concepts in this area of research, during the early stages was

the concept of the 'authoritarian personality'. This might be due partly to the co-occurrence of studies on authoritarianism and sojourn adjustment. The early hypotheses were that attitudes reflecting a closed mind (Rokeach, 1960) and the ethnocentric tendencies described of the authoritarian personality (Adorno, Frenkel-Brunswik, Levinson and Sanford, 1950) would inhibit the acceptance of a new culture and the successful adjustment to it.

During the early 1950's, a number of studies appeared that attempted to deal with the 'detection' of vulnerability in students. According to Davidson et al (1950) who conducted one of the very few, early longitudinal studies over a period of three years (1947-1949) at Oxford, psychological ill health caused 52.5% of all prolonged absence through illness and in 1951, mental disturbance was reported as the most important cause of ill health in Oxford students. Davidson et al compared somatotype, EEG (electro-encephalogram), psychological and psychiatric findings of patients and healthy controls and they found that significant differences could be detected between the two samples. The authors enquired about the medical and personal history of students, including religious interests, previous psychological illness, parental circumstances and relation of subject with his/her family. They also used EEG screening and tests of intelligence and the MMPI (Minnesota Multiphasic Personality Inventory) combined with studies of somatotype (which were quite 'popular' at the time). Despite the questionable validity and reliability of some of these measures, and the questionable applicability of these results to the current circumstances of home and foreign students, it is important to acknowledge two points: a) the use of multiple methods in assessing the students mental and psychological health (interviews, self-report questionnaires, EEG, students' grades) and, b) the longitudinal design of the study.

Later on, some researchers tried to describe the potentially 'good adjuster'. Gardner (1962) referred to the 'Universal communicator' an individual with a 'well-integrated' personality, a central organization of the extroverted type, open to others' values, respecting and sensitive toward others. Adler (1977) described the 'multicultural' individual which is similar to what

Bochner (1970) called 'the mediating person', characterised by cultural sensitivity, resiliency and adaptability, serving as a link between cultures and promoting inter-cultural understanding. Other researchers tried to examine several personality variables but not in depth, leading Church (1982) to the conclusion that 'although personality descriptions of the potentially good adjusters are commonly accepted in the literature, they are based primarily on face validity rather than on empirical data' (Brejn and David, 1971; Church, 1982). Most of the early studies in this area were based on data collected from Peace Corps volunteers and have examined the relationship between a number of personality variables, such as authoritarianism (Mischel, 1965), ego strength (Dicken, 1969; Mischel 1965), manifest anxiety (Mischel, 1965), sociability and tolerance, with adjustment defined in association with field performance. Most of these studies show little to moderate prediction of field performance ratings, but as mentioned earlier, a) field performance may not be necessarily a very good indicator of general psycho-social adjustment and, b) many other variables such as intelligence and motivation may be important in predicting field or academic performance. It is more likely that personality variables will relate to other indices of personal adjustment such as overall satisfaction, general well-being, homesickness and loneliness, as research in this area suggests.

When overall satisfaction with the sojourn experience and development of favourable attitudes toward the host culture were the parameters of adjustment measured in foreign students groups, the results suggested that positive adjustment may be related to personality variables such as less authoritarianism (Basu and Ames, 1970; Chang, 1973), increased personal flexibility (Gullahorn and Gullahorn, 1962; Sewell and Davidsen, 1961), increased sociability and assertiveness (Antler, 1970) and more realistic sojourn goals and expectations (Carey, 1956; Du Bois, 1956; Klineberg, 1970). Other researchers have suggested that the list of a 'happy' sojourner, consists of open-mindedness, ego-strength, ability to accept ambiguity and a universal attitude toward mankind (David, 1971).

In fact, many researchers irrespective of the theory they supported and the hypotheses they tried to test, took into consideration at some point the importance of personality in adjustment. David (1978) referring to the development of self-awareness in an inter-cultural setting, put the question of whether there are certain personality characteristics that 'will allow us to predict who will undergo the culture shock experience and who will ultimately show increased self-awareness'. Other researchers, sometimes attempted to give some answers based on empirical (or theoretical) evidence. For instance, Bochner (1972) argued that 'some crucial determinants of the severity of the culture shock are the sojourner's flexibility in adopting various roles, his sensitivity in recognising subtle sanctions and his ability to discriminate relevant cues for appropriate behaviour. A rigid, insensitive, self-centered individual is ill-equipped for the complex task of culture learning'(p. 71).

A number of researchers, relatively recently attempted to investigate the role of such individual differences in the prediction of personal and academic adjustment of 'non-traditional' students who held two or more major life roles such as full-time employee, partner or parent in addition to the student role' (Bean and Metzner, 1985; Chartrand, 1990). The above definition however is considered to be rather vague, given that most people hold another major role in life, with more or less responsibilities. 'Non-traditional' students rather seem to refer to mature students with family and job responsibilities and to adult students with special needs.

In respect to the two major personality dimensions, Extraversion and Neuroticism, very few studies can be found on the adjustment to university life. Extraversion has attracted more interest (Searle and Ward, 1990; Ward and Searle, 1991; Hojat, 1982) in comparison with Neuroticism (Hojat, 1982).

The first conclusion before leaving this section is that although individual differences in this area of research have not been studied in depth, and usually not within a well-organised

theoretical framework, research in the area of personality suggests that further work in this area may be fruitful. In addition, yet again, home students have been 'ignored'. Although many researchers investigating personality have used student groups in order to test their hypotheses, there are very few studies, that attempted to study adjustment in relation to individual differences, using valid and reliable measures.

1.8 Home students and Adjustment

Despite all the research regarding the adjustment problems of foreign students in a new culture, relatively little research has been done on the adjustment process of home students (e.g. Cutrona, 1982; Shaver et al., 1986; Brewin et al., 1989; Fisher et al., 1985; 1987; 1988; Riggio et al., 1993). The fact that home students have almost been 'ignored', even as a control group, may imply a widespread assumption that home students do not face major difficulties when compared to foreign students.

However, a number of findings from research on overseas students and sojourners in general, may also be applicable to home students. First, it has become clear that there is a connection between geographical movement and a change in psychological well-being. Second, it is rather unlikely that this relationship is a methodological artifact, given that it has been measured by a wide range of instruments, across different situations and from different samples. Third, it is most probable that there may be a large number of intervening variables (Bochner and Furnham, 1986), both within and between the individuals that contribute to a particular outcome. Finally, some of the models that have been proposed or rather have been 'borrowed' from other areas of research in an attempt to explain some of the adjustment difficulties and changes of well-being in foreign students may help as well in understanding the adjustment difficulties of home students.

1.9 Models of Adjustment

Transition and change may be recurring features in life, but often they are seen as stressful experiences, affecting the individual's psychological and physical well-being. Transition and change may take different forms-from minor changes of lifestyle to major changes in a new culture or environment- but a common denominator is discontinuity in life pattern: lifestyle and significant relationships are the two major areas that are being affected and often have to be changed dramatically. This is considered to be a characteristic of major losses such as bereavement, family break-up, divorce and separation and of some positive experiences such as marriage, a new job or geographical relocation for academic reasons (Fisher, 1988). A number of theories and models have been applied in order to describe, understand and explain the different reactions of individuals to these changes.

However, a great deal of the research in the adjustment process of foreign students which has been undertaken by researchers, seems to be descriptive rather than theory-testing. Actually, many studies have been undertaken in an attempt to explore the problems rather than to explain them or to put them in a theoretical perspective. The following models-which are by no means mutually exclusive-have been employed by researchers in order to understand the psychological reactions and processes that take place following a geographical movement for academic or other reasons. As Bochner and Furnham (1986) state the criteria that may be employed to evaluate these models must be those that one uses to judge all theories: internal consistency, clarity, predictability, parsimoniousness and so forth. But as they say, the most important criterion should be the fit of prediction based on the theories to the observations.

1.9.1 Grief and Loss Model: Movement as Loss

A great deal of research has been done during the last twenty five years on the psychology of attachment and loss, since the theory was first discussed by Bowlby (1969). This model of attachment, loss and mourning has been used to describe the experience of many different phenomena such as separation, divorce, even unemployment (Furnham, 1985). This model

has also been applied to the study of loneliness (Weiss, 1974). Grief that is expected to follow significant loss of a person (and in extension of a situation or of a role) has been seen as a ubiquitous, very stressful experience, which may be resolved after a period of time when new satisfying relationships (roles or situations) have been established.

Bowlby (1980) describes four stages of bereavement: a) first, the phase of numbing, b) second, the 'yearning' phase characterised by searching for the lost person, c) third, the phase of disorganisation and despair and finally, d) the phase of reorganisation. However, not all people go through these stages, but again there are different reactions to loss: normal, exaggerated, abbreviated, inhibited, anticipatory or delayed grief (Averill, 1968; Parkes, 1965; Lindemann, 1944). A lot of research has been done on the possible factors that determine the reactions of each individual to loss and although some variables have been identified as significant such as age, sex, and degree of attachment to the lost object, no definite conclusions have emerged (Kubler-Ross, 1975; Parkes, 1975; Bochner and Furnham, 1986).

The idea of viewing migration and geographical relocation as bereavement, is attributed to Munoz (1980) who studied the psychological reactions of Chilean exiles in Britain (Bochner and Furnham, 1986). However, although the comparison and parallelism of bereavement to exile or other compulsory migration is easy to understand, it is rather difficult to accept the analogy proposed by few researchers between loss/bereavement and geographical relocation for academic reasons.

There is no doubt that some element of loss might be involved in leaving home to relocate for academic reasons, especially if it happens for the first time. The student loses temporarily his/her family, the financial security that home may give, the familiar environment, his/her social network, possibly his/her status and roles and he/she has to build a new social network and to re-establish new roles and a new status under the particular circumstances. The

reactions of the homesick or lonely student may be sometimes similar to the reactions of a person who has experienced the loss of a close person. Some of the definitions given by pupils and students, illustrate those points, for example: 'missing home', 'grieving for home' 'missing home so much that you cry and feel sick and cannot sleep', 'feeling lost/disoriented', 'feeling unhappy, dissatisfied, emotional, depressed, sad, anxious and tearful', 'feeling unable to cope /unable to do anything' and so forth (Fisher, 1989). But there are many arguments against the analogy of grief and bereavement with homesickness and the difficulties of adjustment to a new place.

First, although a number of students might show reactions similar to the reactions of the bereaved such as being depressed, anxious, restless, unable to concentrate etc, not all students go through this grief-like behaviour; actually for some students it may be an enjoyable experience from the beginning and rather a minority of home and non-home students react in such extreme ways. It is highly likely that individual differences may be related to this fact. Secondly, leaving home for academic reasons is not usually a forced decision but rather, in most cases, a personal choice. Although, the motives may vary from person to person, the decision is usually the individual's. Third, although relocation may be a threatening event because of the major and minor changes this involves, leaving home is not necessarily a permanent separation; home can be contacted, can be visited (although in some cases it may be more difficult than in others, due to financial or time-related difficulties) such loss can not be compared with the total loss of a close person, following bereavement. The loss experienced by students represents rather a termination of immediate physical proximity rather than total loss (Fisher, 1989). Fourth, the age of most students is such that leaving home is seen as a natural developmental and maturing stage. Finally, although the grief literature does take into account individual and cultural differences, it makes no specific predictions as to what type of people suffer more or less grief, over what period or what form the grief will take (Bochner and Furnham, 1986).

1.9.2 Interruption of Lifestyle

Change and transition are unavoidably associated with interruption. Laboratory studies of interruption (Madler, 1975) have suggested that interrupted tasks may create the conditions for raised tension and when no response is available the consequence is distress, anxiety and fear.

There does not seem to be much evidence concerning how the interruption which is due to transition and change, may affect the individual. Fisher (1988) suggests that it is possible that interruption has a powerful effect because plans which supervise daily routine behaviour remain active, dominating cognition. It is also suggested that the sense of separation and loss is triggered and maintained by the dominance of old plans. Although this model may account partly for the cognitive failure which seems to be associated -though not consistently- with homesickness, it is unlikely that it can explain the difficulties experienced by a number of students, such as the dissatisfaction, loneliness, depression and unhappiness, while at the new university environment.

1.9.3 Locus of Control and Adjustment

One other model that has been used to explain the reactions of adjustment is the locus of control model. The internal-external control construct was conceived as a generalised expectancy to perceive reinforcement either as contingent upon one's own behaviour (internal control or instrumentalism) or as a result of forces beyond one's control and due to chance, fate or powerful others (external control or fatalism) (Rotter, 1966).

One of the early results of research in this area was that external locus of control seemed to be associated with impaired coping strategies, psychological distress and in general a higher number of emotional and psychological problems (Dohrenwend and Dohrenwed, 1969; Seligman, 1975). Later on Kobasa (1979) suggested that internal locus of control is the core element of hardiness, which under certain circumstances may facilitate coping.

Researchers had hypothesised that individuals who feel that the events in their lives are not subject to their control (external locus of control orientation) are less able to cope effectively with stress and thus they will be more likely to experience psychological distress than individuals with internal locus of control orientation (Chan, 1977; Lefcourt, 1982). Externals, do not seem to deal with stress effectively, possibly because they believe that their efforts will have little impact on the events that they are experiencing (Lefcourt, 1982; Phares, 1976), while internals seem to handle success and failure in a more adaptive and realistic way than externals possibly because they feel that they can control the situations and their outcome.

As Bochner and Furnham (1986) argue perceived control is assumed to be important because it gives the sense of being able to manipulate events and the outcomes of behaviour. To lose control over the events in an individual's life is to lose control over the ability to achieve short or long term goals. Based on this hypothesis there are a number of researchers who argue that, if specific groups of people are prone to fatalistic beliefs, it might be expected that they will cope particularly badly with geographical movement (Bochner and Furnham, 1986). A number of researchers have investigated more specifically the relationship between locus of control beliefs and migrant adjustment, with sometimes conflicting results (Kuo et al, 1976; Anath, 1978). Although a number of studies exist on the role of locus of control on the adjustment of immigrants, there is very little research on the adjustment of students. In cases where locus of control has been considered as an dependent variable in the adjustment of immigrants, it is viewed by researchers as a characteristic of a particular ethnic group rather than an individual difference variable. This latter approach may be promising, given the results of individual differences research in other fields of psychology (e.g. Health Psychology).

1.9.4 Expectations

Expectancy-value models have long existed in various areas of psychology (Feather, 1982),

but only relatively recently (during the last fifteen years or so) has research applied expectancy-value theory to the area of migration and mental health, with extremely few references on the adjustment of foreign students and no references to all to the adjustment of home students. The basic idea of this theory is that a person's behaviour is directly related to the expectations that they hold and the subsequent value of the consequences that might occur following the action (Bochner and Furnham, 1986).

Applying this theory to migration and geographical movement in general, the idea is that the relationship between a migrants' expectations of the host country and the fulfilment of those expectations is a crucial factor in determining adjustment. More specifically, as most of the research has suggested, high expectations that are not fulfilled seem to be related to poor adjustment and mental illness. Cochrane (1983) argues, based on his data from West Indian immigrants in Britain, that positive expectations are adversely related to adjustment.

This approach has been seen by a number of researchers as quite promising, given that 'it is not situation bound but acknowledges the importance of including both person and situation variables into the analysis. It recognises that behaviour is always ongoing and evolves as it interacts with the environment and processes information from it' (Feather, 1982). There is no doubt that this is a very important element of a theory when attempting to analyze and evaluate a problem, but it would be rather simplistic to overgeneralise the notion of high expectations leading to maladjustment, especially in the case of students.

First of all, if the individual, who for any reason has decided to move abroad did not hold high expectations regarding the condition in the new environment, then there would be no reason of moving voluntarily at all, in first place. Second, in the case of students, the decision to move from the familiar environment to the unfamiliar environment of a university, is related to motivation for educational and personal growth, motives which by themselves may potentially facilitate adjustment. Third, extremely high expectations may be related to the lack

of adequate information and consequently lack of adequate preparation for the new environment, prior to departure, which may lead to an initial shock at arrival. However, the successful adjustment in this case will be probably related to the coping processes employed by the individual, the appraisal of the situation, the personal resources and the utilization of social and other resources available in the new environment. Fourth, extremely high-unrealistic expectations as well as extremely low expectations may be related to specific personality variables, cognitive and coping styles which may eventually lead to adjustment difficulties- and not the unrealistic expectations as such. Finally, according to this literature, it seems possible that having low expectations may be better for adjustment. (Krupinski, 1985; Bochner and Furnham, 1986). But then, what about the 'self-fulfilling prophecy' hypothesis?

Although, expectancy value theories seem to have proved useful in predicting people's reactions to unemployment and in some cases, the reaction of immigrants in a new country where they have to cope with particular problems such as racial discrimination, there seem to be quite a few problems with this approach, which requires further clarification and improvement. Although the expectancy model is rather unlikely to give a complete explanation of the adjustment difficulties of students, future research in this area is probably warranted given the current dearth of related literature. However, one point which seems to be necessary to keep in mind is the need to educate prospective sojourners of every kind to develop realistic expectations and goals prior to their departure.

Reiff and Kidd (1986) suggest that the institution to which a student has been accepted should provide information about monetary requirements, health and accident insurance, immigration regulations, registration procedures, local transportation, housing assignments /available housing. This provision of information should be extended to the provision of information related to academic standards and evaluation procedures, as well as social life (clubs and societies, possibility of facing racism etc.) and interpersonal relationships (friendships, family

life, dating, teacher-student relationship and so forth).

Recently, a number of theories in several fields, have been used to explain the difficulties of adjustment in a new environment. The common point among all these theories is that, they all are concerned with how certain variables contribute to psychopathology. It is noteworthy that most of the approaches are not competing but are rather complementary.

1.9.5 Negative Life Events Model

The basic idea in the Negative Life Events theory, is that recent negative life events such as death in the family, divorce, relocation etc, may have adverse effects on people's psychological and physical well being (Rahe et al, 1964). The assumption is that the more the recent negative events in one's life (in terms of intensity, duration and consequences), the more likely it is for the individual to suffer from mental and physical ill health. A number of researchers argued that not only negative events such as divorce etc, but also positive events might affect in a negative way the individual's well-being. Most studies have actually demonstrated a significant relationship between negative life events and health problems (Dohrenwed and Dohrenwed, 1974), although recently a number of researchers argue that neither the number nor the intensity of the negative life events as such can cause health and psychological problems but rather the subjective perception/appraisal of events as threatening is the critical factor.

The reason for 'borrowing' this theory from the clinical area in an attempt to explain the problems of adjustment following geographical relocation is the fact that the relocation often involves a number of significant life events-not necessarily negative- but in any case affecting the equilibrium of daily routine. A look at the social readjustment scale (Holmes and Rahe, 1967) can give an indication of the range of changes in everyday routine patterns of behaviour. These may include separation from the spouse, change in financial state, a change in responsibilities at home and family, a change in living conditions, in residence, schools,

recreation, social and church activities, eating and sleeping habits and so forth. However, although it had been thought originally that this model would give a straightforward relationship between relocation and problems associated with adjustment, it seems to be much more complicated.

It is true that for most non-home and the majority of home students, a geographical relocation for academic reasons will be followed by a number of major and minor changes in one's life. It is also likely that not all students experience difficulties of adjustment, depression, anxiety, homesickness etc. In fact, a number of students seem to be quite happy from the beginning of the sojourn, throughout the academic year, while the majority will face minor to moderate difficulties and a minority will face major, distressing and disrupting problems. In other words, although all students experience a high number of everyday life changes, the effect of these changes on them is not the same for all.

Rahe (1964) said that life events may be a necessary but by no means sufficient, precipitator of major health changes. As it has been often suggested, individual differences should be taken into consideration. Personality variables such as extraversion, neuroticism, locus of control, self-esteem and cognitions may act as moderators in the relationship between life events and psychological and physical health, and future research in this direction might prove very fruitful.

1.9.6 Social Support Networks

During the last thirty years the supportive functions of interpersonal relationships have been investigated in a wide variety of research areas. The basic idea is that social support is directly associated with general psychological and physical well-being, while its lack is associated with disorder.

One of the problems in this area of research is the great number of different definitions of

social support that exists and the disagreement of researchers on one definition. Many researchers have attempted to define the various dimensions of social support theoretically (Kahn and Antonucci, 1980; House, 1981; Wills, 1984; Barrera and Aisley, 1983). Other researchers have given a definition from an essentially sociological perspective (Lin, Simeone, Ensel and Kuo, 1979) and others have tried to define it in terms of its functions (Weiss, 1974; Cobb, 1974).

However, most of the researchers have relied on Cobb's (1976) definition, according to which social support is seen as information telling the person that they are cared for, held in high esteem and a member of a communication network with mutual obligations. Social support has also been seen in terms of its dimensions. Essentially, there are three sorts of dimensions that occur repeatedly: a) Affect, b) Affirmation, and c) Aid. Most of the researchers in this area add to the variety of definitions, differing mainly in their focus of what specific elements constitute social support.

Social support is a term that has been widely used to describe the mechanism by which interpersonal relationships may protect people from the deleterious effects of stress. Research to date has shown that strong social relationships seem to lessen the risk of physical-psychological and emotional impairment (Fritz and Marks, 1954; Eitinger and Strau, 1973; DiMatteo and Hays, 1981; Caspi, Bolger and Eckenrode, 1987; Broadhead et al, 1983; Caplan, 1974; Cassel, 1976; Cobb, 1976; Dean and Lin, 1977; Gottlieb, 1981, 1983; Kaplan, Cassel and Gore, 1977; Sarason and Sarason, 1985, etc). Although the many correlational results do not by themselves allow causal interpretations, these data in combination with results from animal research, social-psychological analogue experiments and prospective surveys suggest that social support is a causal contributor to well-being (Cohen and Syme, 1985; House, 1981; Kessler and McLeod, 1985; Turner, 1983; Cohen and Wills, 1985).

A number of researchers have looked at the role of social support in the successful

adjustment of migrants and sojourners. The basic idea is that by leaving the familiar home environment to migrate abroad or to sojourn for any length of time, this results in leaving behind the established social relationships which in periods of stress provided necessary support. Consequently, given that these relationships are no longer immediately available, the sojourner will be more vulnerable to the physical and psychological effects of stress while in the new environment, until the individual manages to develop new supportive relationships and to build new satisfactory social ties.

In respect to students adjustment at university life, very little research has been done, although many researchers have used samples of students for testing their hypotheses or examining new social support measures. Although the social support hypothesis seems to be a very promising area of research, more research is necessary if some important points are to be clarified and some conclusions to be reached.

1.9.7 Social Skills and the Culture Learning Approach

This approach was developed by Bochner (1972; 1981; 1982; 1986). The main idea is that since socially unskilled individuals are often like strangers in their own land, people who have recently arrived in a new culture or environment will be in a similar position to indigenous socially inadequate individuals, because of their lack of knowledge regarding the conventions of the new culture. The interactive elements that regulate social encounters include elements such as expressing attitudes, feelings and emotions; adopting the appropriate proxemic posture; understanding the gaze patterns of the people with whom they are interacting; carrying out ritualized routines such as greetings, leave taking, self-disclosure, making or refusing requests, asserting themselves etc. (Trower, Bryant and Argyle, 1978; Bochner and Furnham, 1986).

According to Bochner and Furnham (1986), individuals who move to a new culture –often are highly skilled in the customs of their own society- suddenly find themselves to be in a very

frustrating situation of feeling socially inadequate. The difficulties of adjustment and the subsequent feelings of inadequacy arise because of the sojourner's lack of knowing how to negotiate everyday social encounters.

Therefore, Bochner and Furnham (1986) suggest that the necessary next step arising from this hypothesis is the identification of specific social situations which trouble a particular sojourner and the training of that person in the skills that are appropriate for effective interaction in those specific situations. The skills for which the individual will be trained will depend: (a) on the sojourner's personal demographic characteristics (age, sex, social class, culture of origin, etc), (b) the new culture whose skills they will be learning and, (c) the purpose of their sojourn. An example of such skills includes polite expression of needs, non-verbal communicative signals (such as bodily contact, gestures etc), acknowledgment of rules and conventions and assertiveness-related skills acceptable or expected in the particular host culture. Furnham (1983) has pointed out that critical and comparative studies have produced good evidence for the effectiveness of social skills training, though it has not as yet been extensively applied to the area of 'culture shock'.

However, although social skills training may be very helpful in the case of sojourner's with a very different culture from the host culture, it may be difficult to generalize the importance of its effectiveness for all sojourners. Furthermore, one might argue that although social skills training may be useful for the first stages of adjustment to a new place, there is no evidence supporting the long term successful outcome. In addition, although such training has been shown to be successful with short-term sojourners such as businessmen, there is no evidence supporting the maintenance of its effectiveness under stress, when several coping strategies and personality and cognitive factors are involved. There are however, some indications mainly from the very-well organised international study by Klineberg and Hull (1979) who found that association with host nationals related to more successful adjustment. This might imply that this positive effect might be possibly partly due to the learning of the

culture through this relationship and mastering the skills required to adjust more successfully to the new culture.

On the other hand, it is possible that the effect of such training will be more beneficial for individuals who already have difficulties with their perceived social skills in their home country; individuals who are quite competent socially, are likely to be able to acquire rather easily and in short time the new social skills. If this is the case, then social skills training is not more beneficial for foreign students than it is for home students with problems of high social inhibition and perceived lack of social skills. More research of a cross-sectional and longitudinal design is definitely required in this area, in the future.

1.10 Summary-Conclusions

As has been shown, the early studies dealt mainly with the description of possible difficulties experienced by foreign students and the change of attitudes toward the host country. Other researchers tried to describe the adjustment process and to identify the different stages that a sojourner goes through in order to adjust in the new environment. Others tried to describe this process by proposing a graphical representation -the U-curve and the W-curve- which, as has been shown, from more recent research was rather impressionistic, based more on overgeneralizations rather than on empirical data, and valid only in a few cases. This was actually one of the many problems of early research: frequent overgeneralizations from limited sample sizes and national groups, the predominance of studies dealing with American students in Europe and Australia, or with students from developing countries in the United States and the 'easy' assumption that students possibly experience similar problems as other very different groups, such as immigrants and volunteer workers in developing countries (Church, 1982).

Another problem in the literature is the very limited number of studies on the adjustment process of home students. What sorts of problems do home students experience? To what

extent? How do they cope with the difficulties? How does adjustment relate to situational and personality variables? In the few studies that home students have been included, they were seen more as a control group rather than a group with interest on its own. Although, a control group is definitely needed in studies of foreign students-another point which nonetheless seems to have been 'ignored'- home students also should be studied in more depth.

In addition, sex differences have not been studied in depth. Apart from very few studies that have studied adjustment defined in terms of mental health, and adjustment in terms of immigrants adjustment, very few studies have looked at sex differences in relation to expectations, motivation, social support and overall adjustment to University life.

A very important limitation of most previous studies is the fact that the great majority of them are cross-sectional with very few longitudinal studies (Klineberg and Hull, 1978; Fisher et al, 1985; 1987; 1988; Cutrona, 1982; Shaver et al, 1986; Brewin et al, 1989). Most of the studies to date have been dependent largely on survey questionnaires, given at a single point in time during the academic sojourn. Other studies which considered information about the students prior to leaving their home environment (Breitenbach, 1970) were invariably conducted post-hoc; this method cannot be considered to be reliable, given the differential memory effects. Even the U-curve theory was based on cross-sectional data or on post-hoc interviews, but when the hypothesis was examined with a longitudinal design, little support was found.

There is no doubt that a longitudinal design is more difficult to implement than a cross-sectional design, given the difficulties involved in getting a high compliance rate from students overtime. However, a combination of cross-sectional and longitudinal studies are necessary in future research, if models are to be tested and conclusions to be reached.

Finally, it is necessary to define 'adjustment' as the term will be used in the present studies.

As has become obvious from the literature review, one of the most prominent problems is the definition of adjustment. For a long time adjustment had become associated with intercultural contact, academic performance and satisfaction with the overall experience. Adjustment has also been defined in terms of the development of a positive attitude toward the host country; in terms of the development of an international perspective and in terms of personal growth. Pruitt (1978) defined adjustment in terms of three indices: (a) comfort with the social and physical environment (freedom from problems with the climate, good communication with locals, lack of problems related to dating, food, loneliness and homesickness); (b) freedom from symptoms such as depression, feeling like crying, irritability and tiredness, and (c) freedom from physical symptoms such as difficulties in sleeping, headaches, stomach aches and new allergies. As Church (1982) points out very correctly, 'operationalization of adjustment in terms of several distinct but related variables is probably necessary, because adjustment indices do not always covary substantially'.

During the last ten years, there has been a tendency among researchers to adopt a more open approach, focusing more on the psychosocial adjustment of students. Loneliness has been seen as one of the most important and most interesting indices of poor psychosocial adjustment among students (Cutrona, 1982; Shaver et al, 1986; Jones et al., 1989). Homesickness has also been used in the past as one of the major problems experienced by students, which affects their successful adjustment to university (Fisher, 1981; 1987; 1988; Brewin et al, 1989). In a number of studies the adaptational outcome has been measured in terms of a combination of physical and mental health and well-being, academic satisfaction and academic performance (e.g. Chataway and Berry, 1989).

In Social and Health Psychology, where 'adjustment' has been defined consistently in terms of physical and psychological well-being, freedom from depression and loneliness, psychosomatic symptoms checklists (such as the Hopkins Symptom Checklist (HSC), the Middlesex Hospital Questionnaire and the General Health Questionnaire (GHQ)), depression

and loneliness inventories (BDI, UCLA loneliness scale) are used (e.g. Holahan and Moos, 1981, 1982; Caldwell, Pearson and Chin, 1987; Hays and Oxley, 1986; Folkman, Lazarus, Gruen, DeLongis, 1986).

In the present studies based on the relevant literature of the studies reviewed, 'adjustment' of home and non-home students will be defined in terms of: (a) a sense of general well-being and psychosomatic health, including somatic, cognitive, behavioural well-being and absence of depression; (b) freedom from feelings of loneliness and finally, (c) overall satisfaction with the academic and social life at University.

Given this definition the basic dependent variables in the present studies will include: (a) a measure of general somatic, cognitive, emotional, and behavioural well-being (General Health Questionnaire; Goldberg and Hillier, 1979); (b) a measure of Loneliness (the R-UCLA scale; Russel, Peplau and Cutrona, 1980), and (c) and a measure of overall adaptation and satisfaction with academic and social aspects of university life (College Adaptation Questionnaire; Crombag, 1968 and Van Rooijen, 1986). All the measures are valid and reliable, and have been widely used in research. More discussion on the psychometric characteristics of these measures will follow in Chapter 5.

CHAPTER 2: Literature Review II

2. Introduction to Chapter 2

In this chapter four major areas of research will be discussed: (a) research on loneliness, (b) social support, (c) happiness, and finally (d) general well-being and personality. The rationale of this presentation is based on the belief that all these areas of research share many common points, and although they follow different paths, they all seem to reach similar conclusions. In addition, all seem to be related to psychosocial adjustment to university life.

A great deal of research has been done on each of these areas and a number of very interesting results have been reported. Research on loneliness focuses on the possible characterological and situational correlates of an unpleasant experience when the individual perceives a discrepancy between the desired and the achieved degree of social contact. Loneliness has been associated with a number of emotional states that indicate a very low level of general well-being and happiness. It has been linked with depression and anxiety, alcohol and drug abuse, higher risk of suicide and accidents, as well as psychosocial maladjustment and drop-out of university. Happiness and loneliness are highly negatively related to each other and are mutually exclusive. Both are associated with the perceived existence (or absence) of supportive and satisfying social relationships; both are highly related with perceived social support. However, it is surprising the fact that although all these concepts are repeatedly found to be so highly interrelated, most researchers focus narrowly on each concept separately.

Empirical results from these literatures seem to converge on the same general conclusions. However, very few efforts have been made to bridge these conceptually related lines of work (Rook, 1985; Jones, 1985). In addition, although there is a number of excellent reviews on social support research (i.e. Cohen and McKay, 1984; Heller, 1979; House, 1981; Mitchell, Billings and Moos, 1983), on loneliness (i.e. Peplau and Perlman, 1982; Jones, 1981; 1985) and on personality (e.g. Watson and Clark, 1985, Watson et al. 1988, 1989, 1990; Stokes et al., 1990), cross-references to these complementary literatures are rather rare. However,

a systematic comparison of the basic results of these different viewpoints could stimulate theory development and could lead to new fruitful directions of research.

This chapter is an attempt to integrate research findings from four different areas of research, which are highly interrelated with each other. An overview of these results, leads to a number of conclusions, on which the present series of studies on the adjustment of home and non-home students at university life are based on. The final section discusses the concepts of Neuroticism and Extraversion, and the extended concepts of Negative and Positive Affectivity which appear to be very important in all the above mentioned areas.

2.1 Introduction to Loneliness

Although loneliness is not a 'modern' experience, research on this seems to have appeared relatively recently; just during the last twenty years. Peplau and Perlman (1982) reviewing the 'bloom' of research recently taking place on the subject of loneliness, wondered why there is sudden interest in this topic. The more simple reason is the fact that it is interesting. Another very important reason is the fact that loneliness seems to be very widespread. Cutrona (1982) reported that at least three-quarters of college students experience at least some loneliness during the academic year. In addition, the effects of loneliness on well-being are such, that more research on the subject seems to be necessary. In fact, loneliness seems to have been linked to depression and anxiety (Bragg, 1979; Cutrona, 1981; Weeks, Michela, Peplau and Bragg, 1980), psychological maladjustment, suicide risk (Wenz, 1977), drop out of university, drugs and alcohol abuse (Bell, 1956), and even physical illness (Lynch, 1976). In addition, loneliness has been found to be related to practitioners' ratings of mental status and adjustment (Berg et al, 1981), as well as to reported health problems and complaints (Carpenter et al, 1984, Reis et al, 1985; Baum, 1982; Rook, 1984). Consequently, it can be argued that although most of these studies fail to disentangle the loneliness and adjustment issue and to point out adjustment difficulties with clinical significance, however they do suggest that there is definitely a significant relationship between general adjustment, life satisfaction, overall happiness and loneliness.

In the present studies on students' adjustment to university life, loneliness will be studied as an indicator of poor adjustment. The decision for including such a measure as an adjustment indicator is based on the conclusions reached after reviewing the relevant literature.

2.1.1 Definitions of Loneliness

The first step in studying a concept is to define it. When people are asked to define loneliness they do not seem to have any difficulty answering, referring mainly to its emotional manifestations. A number of definitions can be found in the literature. Weiss (1982), said that 'loneliness, unlike other concepts such as intelligence, which is a quality of functioning that

can be assessed only comparatively, has symptoms, expressions, a set of characteristics...Loneliness is there'. He conceptualized loneliness as separation distress without an object and he tried to avoid defining loneliness more specifically. The reason was as he put it, that all the definitions given to loneliness, including all those that follow, 'not only are not descriptions, they are not definitions either. They are rather mini-theories' (Weiss, 1982). However, it becomes obvious that even Weiss, despite all the efforts, did not manage to avoid defining loneliness in relation to a theoretical model (Bowlby's attachment theory).

Loneliness has been defined by a number of researchers as a perceived lack of interpersonal intimacy (Chelune, 1977; Chaikin and Derlega, 1974; Chelune, 1975). Young (1982) defined loneliness as the absence of satisfying social relationships, accompanied by symptoms of psychological distress that are related to the actual or perceived absence. Weiss (1973) argues that loneliness is caused not by being alone but by being without some definite needed relationship or set of relationships. Gordon (1976), defines loneliness as a feeling of deprivation caused by the lack of certain kinds of human contact; the feeling that someone is missing. Sermat (1978) described loneliness as the experience associated with a discrepancy between the kinds of relationships one perceives that one has versus one's ideal. Later, Perlman and Peplau (1981) defined loneliness as the unpleasant experience that occurs when a person's network of social relations is deficient in some important way, either quantitatively or qualitatively. In other words, loneliness occurs when there is a perceived discrepancy between the desired and the achieved level of social relationships, in respect to either quantity or quality of interpersonal relationships. Most of the researchers of loneliness, do agree, more or less, with this definition which emphasizes the subjective evaluation of one's social relationships, and this definition will be adopted in the present studies.

Despite the large number of definitions, there are three important issues of agreement in the way that researchers view loneliness: (a) Firstly, loneliness is seen as resulting from deficiencies in a person's social relationships. (b) Secondly, loneliness is considered to be a

subjective experience, and therefore is not synonymous with objective social isolation, solitude or aloneness, and finally, (c) the experience of loneliness is unpleasant and distressing (Peplau and Perlman, 1982; Jones and Carver, 1987).

2.1.2 Types of loneliness

There seems to be a controversy regarding the unidimensionality or multidimensionality of the construct of loneliness. The first distinction that had been proposed by Weiss (1973; 1974), and one of the most influential in the literature, was the distinction between social and emotional loneliness. Emotional Loneliness results from the absence of close emotional attachments, whereas social loneliness results from the absence of an engaging social network and socially integrative relationships (Peplau and Perlman, 1982). Quite a few researchers agree with this distinction and have given evidence to support it (e.g. Bahr and Harvey, 1979; Ellison, 1980; Kivett, 1978; Lopata, 1969; Russel, Cutrona, Rose and Yorke, 1984; Wood, 1978;). Other researchers have supported the existence of more than two dimensions of loneliness (e.g. Mikulincer and Segal, 1990), whereas others have used factor analysis on the most widely used scale of loneliness (the UCLA loneliness scale; Zakahi and Duran, 1985) and have suggested that there are three types of loneliness: psychological or emotional, social and psychosocial.

2.1.3 The Measurement of Loneliness

Quite a few studies dealt with what would constitute a good instrument for measuring loneliness. Initially, some researchers argued that the single question 'Are you lonely?' would have great face validity, would be easy to administer and easy to score. However, as Weiss (1982) argues, a multiple item test would be more appropriate for a number of reasons: (a) first, a multiple item test would be less vulnerable to idiosyncrasies of interpretation and response and consequently more valid and reliable; (b) second, it would facilitate discrimination of degrees of loneliness and make factor analytic search for components of loneliness possible, and finally, (c) 'a scale that appears to have been carefully constructed,

may help bring an area of research into good currency’.

Researchers have taken two different conceptual approaches to the problem of measuring loneliness: (a) the unidimensional approach which views loneliness as a single or unitary phenomenon and, (b) the multidimensional approach which conceptualises loneliness as a multifaceted phenomenon that cannot be captured by a single global loneliness measure (Russell, 1982). There is a number of unidimensional measures (Eddy, 1961; Sisenwein, 1964; Bradley, 1969; Young, 1979; Rubenstein and Shaver, 1979) and a number of multidimensional scales (Belcher, 1973; Schmidt, 1976; de Jong-Gierveld, 1978; Hojat and Crandall, 1987; Rook, 1988; Gerstein and Tesser, 1987; Rubenstein and Shaver, 1982; Scalise et al, 1984). The form of these measures also differ: there are Q-sort statements (Eddy, 1961), rating scales (e.g. Russell et al, 1980), single item self-labelling measures (Berg, Mellstrom, Persson, and Svaborg, 1981; Dean, 1962), projective techniques (Krulik, 1978) and interviews (Lowenthal, Thurner and Chiribuga, 1975) (Jones and Carver, 1987). The most widely used scale today is the UCLA loneliness scale by Russell, Peplau and Ferguson (1978) and the newer version of the Revised UCLA loneliness scale (Russell, Peplau and Cutrona, 1980). This scale is a valid and reliable measure with high face and construct validity and will be discussed in more detail in Chapter IV.

2.1.3 Demographic Correlates of Loneliness

Some studies have found that loneliness has been found to be associated with single marital status and inversely related to income, socioeconomic status and education (Bahr and Harvey, 1979; Baum, 1982; Hanley-Dunn, Maxwell and Santos, 1985; Wenz, 1977). Other studies have found inverse correlations between, loneliness and age (Schmidt and Sermat, 1983) and a number of studies have found that there is greater loneliness reported among minority groups and unemployed (Cutrona, 1982; Hansson, 1986; Siassi, Crocetti and Spiro, 1974).

In respect to gender differences, there seems to be a number of inconsistent findings. Some

studies have suggested that women and girls are more lonely (Kivett, 1979; Wenz, 1977), while other studies suggest that men and boys are more lonely (Avery, 1982; Berg et al. 1981; Schmidt and Kurdek, 1985), whereas a number of studies give non-significant sex differences (Russel et al, 1980). There may be many reasons that explain this inconsistency. One possible reason may be the use of different measures of loneliness. Another reason may be the different samples/ populations used in each study, and finally as Borys and Perlman (1985) concluded, women may be more likely to directly acknowledge their loneliness because the negative social consequences for doing so are less severe (e.g. the gender stereotype that females are more 'sensitive' or more 'emotional' than males allows women to express more easily feelings about loneliness, whereas similar expressions by men may be seen as not 'masculine' enough).

2.1.5 Antecedents of Loneliness

Researchers have tried to identify a number of antecedents of loneliness, concluding that there are two main distinct classes: (a) life events and changes that precipitate the onset of loneliness, and (b) a number of predisposing and maintaining factors, which increase the individual's vulnerability to the experience of loneliness.

These precipitating events may include actual changes of an individual's social relationships, following a life change, such as divorce, the ending of a close relationship, the geographical relocation for academic reasons and so on. Particularly in the case of home and non-home students the transition to university (or to a university abroad) for the first time, includes a number of minor and major changes: a change of everyday routines, physical separation from relatives and friends, and quite often a change of the nature and intensity of relationships (Shaver et al., 1986). Cutrona (1982), asked college students what made them feel lonely. The percentage of respondents' most frequent answers were as follows: (a) leaving home to go to college (40%), (b) romantic break-ups (15%), (c) problems with friends (11%), (e) family problems (9%), and (f) isolated living situations (6%).

In addition to changes in actual social relationships, loneliness can be triggered by changes in the individuals' social needs and desires. In the case of students, given that most of them are in an age that involves a great number of developmental changes related to the sense of self-identity, these changes of personal needs and desires are quite plausible.

On the other hand, although most researchers do agree on the nature and variety of environmental precipitating events, research has tried to identify a number of predisposing factors, a set of personality characteristics that are consistently linked to loneliness, when interpersonal situations are held constant. In other words, one of the main goals of this type of research is to identify those predisposing personality factors that characterize a 'vulnerable' to loneliness person that possibly help maintain loneliness over time and across situations. Ichheiser (1970) said that asking a person about his relationships yields useful information about that person's perceptions, expectations, personality, emotions and experiences, but does not say anything about the partner in the relationship or even about the relationship itself. Jones (1987) argues that this is because the view of the person is precisely that - a perspective that is deeply influenced by factors internal to the person. In this sense, he says 'the study of loneliness is the study of an internal syndrome or state and not the study of relationships' (p.29).

Today, the focus of research is rather on the interplay of situational with characterological factors. Similar to the case of studying the adjustment of students to university life, one of the basic questions is which people under what circumstances are more likely to experience loneliness. Consequently, the focus is on the interaction between personality and situation, when attempting to predict who is more likely to experience loneliness.

2.1.6 Theoretical approaches to loneliness

In order to understand and explain loneliness, researchers have tried to find some answers to a number of theoretical questions: What is the nature of loneliness? Is it a normal or abnormal

condition? Is it an indicator of maladjustment? Is it a trait or a state? What are the causes of loneliness? Are these causal factors within the individual, within the environment or rather within the interaction between the individual and the environment? Eight different approaches can be identified in psychology that attempt to answer some of these questions, namely: (a) the Psychodynamic models (Zilboorg, 1939; Sullivan, 1959; Brennan, 1982; Hendrix, 1972; Leiderman, 1969; 1980); (b) Roger's Phenomenological Perspective (Roger, 1970; 1973); (c) The Existential Approach (Moustakas, 1961); (d) the Sociological view (Bowman, 1955); (e) the Interactionist approach (Weiss, 1973); and finally, (f) the Cognitive Approach (Peplau et al., 1982; Peplau, Russel and Heim, 1971; Peplau, Miceli and Morasch, 1982; Anderson, 1983). All of these models, with the exception of the Existential model, view loneliness as an unpleasant experience, as well as a parameter of poor psychosocial adjustment.

2.1.7 Correlates of Loneliness

(a) Cognitive Factors

A number of findings from relatively recent research on the cognitive correlates of loneliness appear to be particularly interesting. Perlman (1982) has suggested that lonely people seem to be less able to concentrate or focus their attention effectively. Jones et al (1981) suggested that lonely individuals tend to be rather self-focused and self-conscious, dwelling upon their mistakes to a greater extent than non-lonely people; and Weiss (1973) suggested that lonely people tend to be highly vigilant about interpersonal relationships. All these suggestions seem to lead us to the need for further investigation of a number of personality constructs, such as the construct of Negative Affectivity, which will be discussed in detail later on in the present chapter.

(b) Inappropriate personal communication

Solano and Batten (1979) suggested that the social interaction styles of lonely people are different from those of non-lonely people, making the initiation and maintenance of relationships difficult for the lonely individual. Zimbardo (1978) found that lonely people tend

to be rather shy and to have the interaction characteristics of shy people: avoiding direct eye contact, having difficulty in being properly assertive in expressing beliefs and opinions, speaking quietly when interacting with other people and in general having rather poor social skills.

(c) Personality Variables, Social Attitudes and Interpersonal Judgements

Many researchers have tried to identify a number of personality variables, attitudes and cognitions which are associated with loneliness. Others referred to the 'prototype' of the lonely individual. For instance, Horowitz and his colleagues (1982) conceptualized the prototype of a lonely person as: (a) an individual with a specific 'fuzzy set' of personality variables; (b) this prototype is considered to be nested within the prototype of the depressed person, and finally, (c) includes a number of specific interpersonal problems and difficulties. Later research confirmed these hypotheses.

Research to date seems to have identified a number of personality vulnerability factors such as shyness, introversion, lack of adequate social skills and low self-esteem which are considered to contribute to the onset of loneliness in three different ways: (a) Firstly, such characteristics may reduce the individual's social desirability; (b) Secondly, such characteristics may influence a person's behaviour in social situations and contribute to unsatisfactory patterns of interaction, and finally, (c) they may affect how a person reacts to changes in his/her actual social relations and so influence how effective the person is avoiding, minimizing or alleviating loneliness. (Perlman and Peplau, 1982).

In studying the importance of personality variables in loneliness a number of researchers tried to group the personality characteristics in two groups: (a) those thought to inhibit the initiation of social interaction, such as self-consciousness, social anxiety and social discomfort and, (b) those thought to interfere with the development of relationships, such as mistrust, negative orientation towards using social support resources and self-esteem (Vaux, 1988). The findings

of the latter study (Vaux, 1988) seem to be consistent with earlier studies. The basic conclusion of the study was that loneliness may result from both personal factors, particularly those inhibiting the development of social relationships and both qualitative and quantitative social network factors.

Other researchers attempted to explore the relationship of Eysenck's major personality dimensions with measures of general, social and emotional loneliness. Although, as has been already mentioned, studies have given rather inconsistent results regarding sex differences, some researchers have argued that the sex differences of loneliness wherever found, may be due to a third underlying factor (Borys and Perlman, 1985). Saklofske (1986) and Saklofske, Yackulic and Kelly (1986) suggested that the personality dimensions of Neuroticism, Extraversion and Psychoticism may underlie loneliness, and that male and female differences in loneliness may be due to the possibility that Extraversion and Neuroticism are differentially related to loneliness for each sex. For instance, Saklofske et al (1986) found that regression analyses indicated a substantially stronger relationship between the Eysenck factors and loneliness for females than for males. Further research by Saklofske and Yackulic (1989) confirmed their hypothesis on the importance of Neuroticism and Extraversion on the experience of loneliness.

In particular, research on self-disclosure and personality has given some interesting findings that seem to be quite relevant with research on loneliness. The best established correlates of high self-disclosure are extraversion and sociability (Cosby, 1973). Those attributes tend to be rather low among lonely individuals as research to date has shown, and it is quite possible that the self-disclosure of lonely people is rather low as well (Russel, Peplau and Cutrona, 1980).

Horowitz and French (1979) found that lonely students had quite a few problems associated with inhibited sociability (e.g. difficulty enjoying oneself at a party, difficulty initiating social

interaction, being friendly and so on). Goswick and Jones (1981) reported that lonely students were more self-focused, thus having less empathy and concern about others. Again although most of these studies were based on student populations, further research has given similar results for other groups as well, including elderly (Perlman et al, 1978) and divorced people (Jones et al, 1980; Jones et al, 1982).

Although as has already been mentioned, a great deal of research has been done on the importance of social skill deficits, not all results support the same conclusions. Actually research by Jones et al (1981) suggested the importance of negative perceptions of self and others among lonely individuals and he found only limited evidence of social skill deficits.

Hojat (1982) hypothesized that in a multivariate statistical model, a number of personality variables such as depression, anxiety, neuroticism, psychoticism, misanthropy, and external locus of control, could positively predict loneliness, while extraversion and self-esteem would negatively predict loneliness. His samples consisted of Iranian students studying at home and at American universities and his measures were a number of standardized and reliable measures for each construct. The obtained results, when applying multiple regression analysis confirmed the initial hypotheses. For his first group of Iranian students studying abroad, anxiety, self-esteem, depression, extraversion and locus of control were significant predictors of loneliness, while for the second group of Iranian students studying at home universities, neuroticism, extraversion, depression, misanthropy, self-esteem and psychoticism were significant predictors of loneliness. After applying factor analysis to his data, two factors seemed to have clearly emerged in each group: the first bipolar factor comprised of neuroticism, anxiety, depression, misanthropy, external locus of control, psychoticism and loneliness at the one pole and self-esteem, extraversion, and social desirability at the other pole. Hojat considered this factor as negative attributes of personality and the second factor, on which extraversion (group II) and self-esteem (group I) had high loadings, as positive attributes of personality.

Locus of control is another dimension that has been studied, although not in depth. Mikulinger and Segal (1991) tried to investigate the importance of locus of control on loneliness in a rather indirect way, using a phenomenological approach. Their findings indicated that loneliness was related to lower desire for intimacy among persons who hold external expectancies of control. In addition, they found that loneliness was related to higher desire for passion in love relationships and to a higher desire for intimacy with strangers and acquaintances during a loneliness episode among persons who hold internal expectancies of control.

Other researchers studied the social attitudes that appear to be associated with loneliness. Such attitudes include cynical and rejecting attitudes toward other people and life in general (Brennan and Auslander, 1979; Jones, 1981), together with beliefs that imply pessimism and a sense of inability to control one's own life (Jones et al, 1981; Moore and Sermat, 1974; Solano, 1980; Davis et al 1992). Particularly in the case of students, loneliness was found to be associated with various indices of social alienation (e.g. anomie, powerlessness, normlessness), with external locus of control and generalized hostility, social anxiety and self-consciousness (Jones, Freemon, and Goswick, 1981; Moore and Schultz, 1983). On the other hand, loneliness was found to be inversely associated with acceptance of others, trusting of others, beliefs in the good nature of people, and a view of the world as just (Jones, Freemon and Goswick, 1981). It is important at this point to mention that, although many of these results were based on the study of student and adolescent population, there are quite a few studies which indicate that these results may be applicable to other populations as well (Brennan and Auslander, 1979; Jones et al, 1980; Jones, 1982).

Research on the interpersonal judgment of lonely and non-lonely people has shown consistently that lonely people tend to perceive themselves negatively and at the same time they expect others to evaluate them more negatively (Jones et al, 1981; Jones, 1982). In addition, further research showed that lonely people evaluate other people as well in a more

negative and rejecting way. This may be associated with the projection of their own perceived inadequacies upon others, or even with the possibility that lonely people tend to have unrealistic expectations from relationships, looking for the perfect partner, the perfect friend and so on (Jones et al, 1981; Jones, 1982). As Jones et al (1981) put it, this raises questions as to whether lonely people have a negative set or bias towards people which may influence their judgments about both themselves and others. Jones (1982) suggested that attitudes of cynicism and interpersonal mistrust, along with the tendency to devalue new acquaintances, may contribute to the persistence of loneliness among lonely individuals.

(d) Social Contact, Social Networks and Satisfaction with Relationships

In an attempt to understand the social behaviour of lonely individuals, a number of researchers studied the interaction patterns of lonely people, the frequency of their social contacts and the characteristics of their social networks. In this area of research there are in general two hypotheses. The first one postulates that lonely people tend to have less social contact with people, while the second theory supports the notion that lonely people do not have less social contact than non-lonely individuals, but they are more dissatisfied with their social relationships. In the case of students, there are studies that support both the first hypothesis that lonely students have less social contact /different social networks in respect to size and density (Russell et al, 1980; Jones et al, 1980; Jones et al, 1982; McKormack and Kahn, 1980; Hamid, 1989; Jones et al, 1985; Dufton and Perlman, 1986; Jones and Moore, 1987; Levin and Stokes, 1986; Sarason et al, 1985; Sarason et al, 1986; Stokes, 1985), and the second hypothesis (e.g. Austin, 1983; Baum, 1982; Corty and Young, 1981; Hoover et al, 1979) that satisfaction with contacts is more important than the actual frequency and characteristics of contact (Jones et al, 1985; Rubenstein and Shaver, 1982; Cutrona, 1982; Hecht and Baum, 1984).

Another well-organized study, partly longitudinal, by Cutrona and Peplau (1979), investigated among other things the objective social networks of students with their reported satisfaction

from them. Cutrona and Peplau (1979) compared objective measures of the students' social networks and their satisfaction ratings regarding friendship, dating and family. These ratings were taken from first year students at two different time points during the academic year. The results showed that satisfaction with the relationships were better predictors of loneliness than the objective measures of the students' social network, including number of friends, dating frequency, and distance from home. Similar results were found in a later study by Cutrona (1982).

Jones (1982) noted very interestingly, that 'to the extent that these results may be generalized, they suggest that the reasons for loneliness are not to be found so much in the objective characteristics of the lonely person's social milieu (e.g number of available friends or amount of social contact) as they are in the way that lonely people perceive, evaluate and respond to interpersonal reality' (p.244)

2.1.8 Theoretical models attempting to explain the relationship between Personality, Attitudes, Cognitions and Loneliness

Research to date suggests that a number of individual differences are related to loneliness. A number of models have been developed trying to explain these relationships. Two of the most influential models are the Social Network Mediation Model and the Cognitive Bias Model. Stokes (1986) has described and discussed both models.

(a) The Social Network Mediation Model

The Social Network Mediation Model suggests that individual difference variables are related to loneliness through the mediation of social network variables. According to this model, individual qualities may reduce one's social desirability and motivation to initiate social contact and to develop and maintain social relationships. This model, in other words, suggests that people with a specific set of personality characteristics have difficulty establishing and maintaining satisfactory social relationships and therefore they experience

loneliness (Stokes, 1986).

(b) The Cognitive Bias Model

According to this model, cognitive processes underlie all these relationships between loneliness and individual variables. In other words, the individual difference variables and loneliness are influenced by the same intrapersonal cognitive processes. Watson and Clark (1984) extended the construct of neuroticism, suggesting that trait anxiety, neuroticism, low self-esteem, hostility toward self and others and unspecified guilt can be viewed as reflecting aspects of a broader construct, named Negative Affectivity (NA).

The Cognitive Bias Model suggests that loneliness is also a reflection of Negative Affectivity and it is this pervasive disposition to view oneself and the world in a negative way, that accounts for the relationship between loneliness and the individual difference variables. In other words, self-perceived loneliness is not so much a function of the size, density or multiplexity of the objective social networks but rather a function of the intrapersonal cognitive processes (Stokes, 1986). These two models should not be considered to be mutually inconsistent or even mutually exclusive, as combined they could give possibly a more complete explanation of loneliness.

2.1.9 Summary of Research on Loneliness

Loneliness occurs when the individual perceives a discrepancy between the desired and the achieved level of social relationships, in respect to quantitative and qualitative aspects. Research to date has indicated that there is possibly a set of predisposing personality factors that make the individual 'vulnerable' to the experience of loneliness including, emotionality, anxiety, introversion, low self-esteem, interpersonal mistrust and so on. Research on happiness and social support possibly could give a more complete explanation of this complex area.

2.2 Research on Happiness and subjective Well-Being

Recent interest in measuring the quality of life has lead researchers to conduct national surveys of happiness and to examine the influence of social-structural and demographic variables on subjective well-being (Andrews and Withey, 1976; Bradburn and Caplovitz, 1965; Campbell, Converse and Rodgers, 1976; Cantril, 1965).

Research on happiness has tried to find some answers to the following questions: (a) what is happiness; (b) can happiness be measured; (c) is unhappiness the rule; (d) how do people assess their happiness; (e) what conditions favour happiness; (f) can happiness be promoted, and finally (g) should happiness be promoted (Veenhoven et al., 1991). In this section we will refer only to research on happiness in respect to the personality and situational correlates of happiness and well-being. However, before going on, it is necessary to define happiness and general well-being.

2.2.1 What is Happiness? -Definitions

Although there are a number of different conceptualizations of happiness and life satisfaction, with some of them focusing on objective and some on subjective correlates of happiness, many researchers today seem to favour the use of a definition focusing on the subjective perception of happiness for a number of reasons. The first reason is possibly the fact that 'subjective' happiness and 'satisfaction with life' is easy to measure and the concept can be fairly well defined. Secondly, the fact that one of the first most surprising results was a meagre relation found between objective and subjective indicators of happiness and well-being. As Costa and McCrae (1980) pointed out, common sense suggests that wealth, youth, and social privilege should contribute substantially to happiness, and a great deal of research has been done on that. However, most of the studies showed that all these variables explain only a very small percentage of the variance of happiness and general well-being. For instance, Campbell (1976) reports that only 17% of life satisfaction is predictable from ten demographic variables in a national probability sample, and Andrews and Withey (1976) also

showed that a number of demographic variables (age, family cycle stage, family income, education level, race and sex) explained an 8% of the variance of life satisfaction.

One of the researchers who focus on the subjective perception is Veenhoven (1991), who defines life satisfaction as 'the degree to which an individual judges the overall quality of his life as-a-whole favourably' (p.10). Veenhoven, as well as many other researchers, use the word happiness as a synonym to life satisfaction.

Argyle and Martin (1991), define happiness in terms of its components, which are considered to be partly independent: (a) the frequency and degree of positive affect, or joy; (b) the average level of overall satisfaction with life over a period, and (c) the absence of negative feelings/affect, such as depression and anxiety.

Researchers have investigated the question about the relationships between positive affect, negative affect, and life satisfaction. The general conclusion that has emerged from all these studies supports the view that negative and positive affect are two relatively independent and additive determinants of satisfaction (e.g. Bradburn, 1969; Bradburn and Caplovitz, 1965; Emmons and Diener, 1985; Harding, 1982; Perry and Warr, 1980; Warr, 1978; Watson and Tellegen, 1985). In other words, it has been suggested that the presence of positive affect and the absence of negative affect conjointly determine a person's level of life satisfaction.

2.2.2 Happy People

One of the first questions that researchers asked was if there are people who are consistently happier across time and situations, as other people tend to be depressed. Diener and Larsen,(1984) found that there is a substantial amount of person variance in happiness. Veenhoven (1991) also mentions, that characteristics found over-represented among the happy are identity integrity, ego-strength, mental maturity, inner control, social ability, activity and perceptual openness; characteristics which are considered to be typical concomitants of mental

health, and at the same time goals in many psychotherapies.

Up to date findings of research on happiness and subjective well-being, tend to support consistently the hypothesis that Extraversion and Neuroticism with their components, are good predictors of happiness and subjective well-being. Martin, Argyle and Crossland (1993) found that Extraversion, as this was measured by the Eysenck's EPQ, correlated quite highly with the Oxford Happiness Inventory ($r=.48$). Costa et al (1981), found that Extraversion predicted happiness seventeen years later at .24 and to .35. More specifically, the social component of Extraversion was found to be a very good predictor of positive affect.

Headey et al (1985) in a study of 600 Australians over a period of three years found that Extraversion predisposed people to experience favourable life events, especially in the domains of friendship and work; these in turn were shown to lead to a high level of positive well-being, and to increases in Extraversion.

Smith (1961) found that optimism, warmth, emotional stability, sociability and self-insight could be considered to be correlates of happiness, while Wessman and Ricks (1966), in their study of Harvard and Radcliffe students concluded that characteristically happier people are well-adjusted, high in ego strength, high in self-esteem and socially more involved. Wilson (1967) agree with the later finding in his literature review, saying that 'happiness is consistently related to successful involvement with people' (p.304).

Another very common finding that seems to appear again and again in the literature, is the importance of Neuroticism-related variables, such as anxiety, high emotionality, worry and so forth. One of the difficulties that appears in this area is the fact that a variety of measures have been used to assess Neuroticism, with some of them being more reliable than others. In addition, another problem is that Neuroticism and its correlates of Negative Affect are sometimes used as independent variables, while other times they have been regarded as

indicators of unhappiness, general maladjustment and mental-psychological health.

Costa and McCrae (1980) suggested, giving at the same time quite interesting evidence, that: (a) There is a set of personality traits that influence positive affect (or satisfaction), and a different set of traits that influence negative affect (or dissatisfaction). (b) The first set of personality variables can be viewed as components of Extraversion, while the second set can be viewed as components of Neuroticism, and finally, (c) Personality differences antedate and predict differences in happiness over a period of ten years.

After applying factor analysis to their data they concluded that scales of general emotionality, fear, anger, psychosomatic complaints and poor inhibition of impulse defined a N factor while sociability, tempo and vigour formed part of an E factor. According to the authors, Extraversion together with its components, predisposes people toward positive affect, whereas Neuroticism and its components predispose people toward negative affect. 'These two components are subjectively 'balanced' by the individual to arrive at a net sense of subjective well-being, which may be measured as morale, life satisfaction, hopefulness, or simply happiness'.(p.1107)

Happy people have been reported to look at the 'bright side' of life, rating events as more pleasant, having a more positive view of themselves and others, being more optimistic, being higher in internal control (Diener, 1984), and being able to recall more positive events (Matlin and Gawron, 1979). Happy people are also reported to have a relative absence of inner conflicts (Wilson, 1987). On the other hand, unhappy people have been reported to ruminate about bad events, and when they think about the good ones it is to wonder how they might go wrong.

Lewinsohn, Redner and Seeley (1991) reported a number of very interesting results from their well-organized longitudinal study. From their original sample of 20,000 individuals who had

been contacted in March 1978, eventually 998 subjects participated through to the end of the study in 1979. They used a number of standardized, valid and reliable measures and among other very interesting findings, they gave the following conclusions in respect to the psychosocial variables found to be associated with life satisfaction: (a) Individuals with higher life satisfaction levels described themselves as having more extensive, frequent and reliable social supports; (b) they were more socially skilled, and (c) they were feeling more content with their relationships with others. In respect to locus of control, they found that: (a) more satisfied individuals were less likely to endorse items indicating an external locus of control for both failure and success experiences, and felt they had more control over their lives and social outcomes; (b) they reported fewer irrational beliefs, were more optimistic and less pessimistic, and had lower levels of reported cognitive difficulty. In respect to stress experienced, individuals who were more satisfied reported fewer microstressors and macrostressors and also rated potential microstressors as less aversive. In addition, more satisfied individuals had higher self-esteem and were making greater use of coping responses relying on Cognitive Self-control, and less use of Maladaptive Escapism and Solace Seeking.

2.2.3 Happiness and Social Support

Social Support has been found to be associated with better physical and psychological health. In a famous study in California by Berkman and Syme (1979), about 7,000 people were interviewed to get a measure of their supportive social networks. When they were interviewed again, nine years later, those with strong social support networks fared better, even after they were being matched for initial health, health practices, obesity, smoking, drinking and social class. Actually, a 30.8 per cent of men with the weakest networks had died, whereas only a 9.6 per cent of those with strong social support had died (Brown and Harris, 1978). The very strong relationship between loneliness, happiness and social support suggests that findings deriving from research on social support should be definitely taken into consideration.

2.3 Introduction to Social Support

The increased interest in the concept of social support among those concerned with health and well-being can be attributed to several factors. According to Cohen and Syme (1985) these factors are: (a) its possible role in the aetiology of disease and illness; (b) the role it may play in treatment and rehabilitation programs following the onset of illness and finally, a third reason is (c) the potential for aiding in the conceptual integration of the diverse literature on psychosocial factors and disease. At the beginning of research in this area, social support was seen as protecting people from a wide variety of psychological states: from low birth weight to death, from arthritis through tuberculosis to depression, alcoholism and a number of psychiatric illnesses (Cobb, 1979).

2.3.1 Social Support and Loneliness

Although a great deal of research has been done on social networks, the functions of social support and the importance of social support to the health and general well-being, comparatively few studies have investigated the personality factors that might influence the development, the perception, evaluation and the maintenance of social support.

Jones (1985) argues very correctly that the literature on the psychology of loneliness is a logical departure point because it shares with the concept of social support the assumption that intimate and social relationships are essential to human functioning. However, with a few exceptions like that of Jones, very few studies seem to exist that have investigated linked the two notions. More specifically, Jones says that the social support literature considers relevant issues from the outside inward—from the social network toward the experiencing person—finding vulnerability to stress when support is not forthcoming. On the other hand, research on loneliness begins with the subjective experience of the lonely individual and then looks outward for explanations of discomfort. 'Consequently, these two approaches view the social exchanges between an individual and his social environment from different perspectives creating the potential for cross-fertilization'.

There is a number of excellent reviews of social support research (Cohen and McKay, 1984; Heller, 1979; House, 1981; Mitchell, Billings and Moos, 1983; Turner, 1983; Cohen and Wills, 1985) and loneliness research (Peplau and Perlman 1979; Jones, 1981). However, very few cross-references to these complimentary literatures can be found. It has been argued though, very correctly, that a systematic comparison of these viewpoints should stimulate theory development and possibly indicate new directions for research (Rook, 1985).

2.3.2 Social Support as a Resistance Resource

One of the broadest areas of research during the last two decades is the study of social support and its role on general well-being, health and the outcomes of stress. 'Social support' is a term that has been used to refer to the positive provisions of social relationships, assuming the protective influence of social relationships to the negative effects of stress on an individual's life. Social support has been found to be consistently associated with health (Cassel, 1976; Cobb, 1976; Caspi, Bolger and Eckenrode, 1987; Solomon, Miculincer and Hobfoll, 1986), risk of depression (Broadhead et al, 1983), and increased anxiety and neurosis (Henderson et al, 1981), and even mortality (Berkman and Syme, 1979; House, Robbins and Metzner, 1982; Schoenbach et al, 1986). A great deal of research on Social Support has taken place, with a number of studies trying to differentiate the effects of separate functions or aspects of social support. A number of very good reviews has appeared during the last ten years, summarizing the very interesting findings of studies on the the functions of social relationships, social networks and so forth (e.g. Albrecht and Adelman, 1984; Cohen and Syme, 1985; Ganster and Victor, 1988; Leppin and Schwarzer, 1990; Kessler, Price and Wortman, 1985).

2.3.3 The concept of Social Support

Before going on, it is necessary to define social support. However, the first thing that a reviewer of the relevant literature will notice is the number of different definitions and approaches to social support, and at the same time the similarities among all these definitions.

Various typologies of supportive behaviours or acts and functions of social support have been proposed by Antonucci and Depner (1982), Barrera and Ainley (1983), Caplan (1979), Cohen and McKay (1984), Gottlieb (1978), House (1981), Silver and Wortman (1980) and so on.

The concept of social support seems to have derived from the social network theory (Homanns, 1968; Bott, 1971), according to which social contact and social relationships are necessary for the normal functioning of the individual throughout his/her life. One of the most important provisions of the individual's social network is the provision of support, especially in times of stress or crises.

Social support has been defined as 'support accessible to an individual through social ties to other individuals, groups and the larger community' (p.109). Later on Cobb (1976) defined social support in terms of the specific provisions offered by social relationships, which are considered important in helping the individual in times of stress: emotional, esteem and network support. More specifically social support is defined as information leading the subject to believe that he or she is cared for, esteemed and a member of a network of communication and mutual obligation. Weiss (1974), in his study of loneliness, identified six elements of social support, six provisions of social relationships that are necessary for the individual's well-being: attachment, social integration, opportunity for nurturance, reassurance of one's worth, a sense of reliable alliance and obtaining guidance. Later on, other researchers added to this list provisions, material, tangible aids and services (Cohen, Kamarck, Mermelstein and Hoberman, 1985; Schaefer, Coyne and Lazarus, 1982). Lin, Simone, Ensel and Kuo (1979) defined social support as 'support accessible to an individual through societal ties to other individuals, groups and the larger community' (p. 109). However, as Levy (1983) notes, this definition does nothing to clarify the muddy conceptual waters.

Kahn and Antonucci (1980) in a way summarized all these, defining social support as 'interpersonal transactions that include one or more of the following key elements, the three

As: affect, affirmation, and aid'. The element that seems to be implicit in this definition and which seems to be missing from other definitions is the fact that social support is not simply a 'provision' of the individual's social network to the person, but rather a two-way, dynamic, transactional process between the individual and his social network. Finally, House (1981) integrating many of these conceptualisations of social support, identifies four types of support behaviors: (a) emotional support, (b) instrumental support, (c) informational support, and (d) appraisal support.

2.3.4 Research Strategies on Social Support

Levy (1983) identified five research strategies that have been used: (a) the first is to compare the informal support systems of clinical and non-clinical populations; (b) the second method of investigation involves sampling people with specific forms of disorders such as depression (Brown, Bhrolchain and Harris, 1975; Paykel, Emms, Fletcher and Rassaby, 1980; Slater and Depue, 1981; Surtees, 1980); (c) the third method assesses the support systems of the general population. These studies usually provide insight into the separate or interactive effects of support and life stress on the less severe forms of psychological difficulty (Holahan and Moos, 1981; LaRocco, House and French, 1980; Phillips, 1981, Sandler, 1980). (d) The fourth research type, instead of focusing on the sample characteristics, focuses on the coping response of individuals, all of whom are challenged by the same stressful event (Hirsch, 1980; Goperlud, 1980; Kahn, 1980), and finally, (e) the fifth and less applied, is to look at the personal or demographic characteristics which differentiate the supported from the unsupported (Holahan and Moos, 1981; Philips, 1981). Research on social support and students' adjustment can be seen as belonging to the fourth type of research, where all subjects are challenged by the same stressful event-the transition to the university. In the present studies, the fifth type of research on social support will also be used.

2.3.5 The Measurement of Social Support

In the early stages of research on the role of social support, the most widely measured

variable which was considered to be a very good indicator of social support was the individual's social network. Later on, House and Kahn (1985) suggested three categories of social support measures, that work together to give the full picture: social networks, social relationships and social support.

Social support is a multi-dimensional construct, as it becomes clear from the definitions discussed. There is a number of constructed measures of social support with good psychometric characteristics that have been proposed (Barrera, Sandler and Ramsay, 1981; Procidano and Heller, 1983; Tardy, 1985; Thoits, 1982; Turner, Frankel and Levin, 1983; Vaux and Harrison, 1985; Vaux, Phillips et al, 1986). Some of them are the Interpersonal Support Evaluation List-ISEL (Cohen et al, 1985), the Social Support Questionnaire-SSQ (Sarason et al, 1983), and the Inventory of Supportive Behaviours (Barrera, Sandler and Ramsey, 1981). However, the variety of definitions, as well as the variety of social support measures have made the relevant literature difficult to review, to compare and to summarise.

2.3.6 Perceived versus Structural Measures

Over the years of research on social support there was, and still is, a controversy on whether it is more appropriate to use structural or functional measures of social support. Social Networks refer to the social connections provided by the environment and can be assessed in terms of structural and functional dimensions (Marsela and Snyder, 1981). On the other hand, perceived social support refers to the impact networks have on the individual (Procidano and Heller, 1983). If networks provide support, information and feedback (Caplan, 1974), then perceived social support can be defined as the extent to which an individual believes that his or her needs for support, information and feedback are fulfilled (Procidano, 1983). Procidano and Heller (1983) argue that perceived social support is probably influenced by individual factors including both long-standing traits and temporal changes in attitude or mood. Both of these may influence the perception of whether support is available or has been provided.

Recently, Leppin and Schwarzer (1990), concluded from their meta-analysis of about 80 studies that qualitative aspects of social support and satisfaction with social support are better predictors of health and stress outcomes than more 'objective' aspects of social support, such as number of relationships, frequency of social contact, density of social networks and so on.

Coyne and DeLongis (1986) have noted that social support during recent years is widely regarded as a personal experience and not as an objective set of circumstances or as a series of interactions. Stokes and McKirnan (1989) argue that there are two major reasons for this shift in the measurement and conceptualization of social support: (a) The first reason is the fact that objective and subjective measures of support are largely unrelated to one another (Hobfoll and Stokes, 1988; Sarason, Sarason and Shearin, 1986; Schaefer et al, 1981), and at the same time studies that have attempted to predict subjective feelings about social support from more objective measures of networks have not been very successful (Hobfoll, Nadler, and Leiberma, 1986; Oritt, Behrman and Paul, 1982; Stokes 1983). (b) The second reason is the frequent finding that subjective measures bear a stronger relationship to adjustment and psychological distress than do more objective, quantifiable measures (Billings and Moos, 1982; Henderson, Byrne and Duncan-Jones, 1981; Hirsch, 1980; Hobfoll and Stokes, 1988; Scafer et al, 1981; Cohen, et al., 1984) and even in the cases that researchers found that social network characteristics and especially density were consistently better predictors of perceived loneliness for men (but not for women), their results could not be generalized for all the population or even for the whole sample.

In the present series of studies, measures of perceived social support were preferred to measures of structural social support for two reasons: (a) the first reason is based on the assumption of the transactional approach that the protective effects of social support is primarily mediated by cognitive processes (Lazarus, 1977; Lazarus and Folkman, 1984). In other words the assumption that social support operates by influencing the individual's appraisal - which depends on personality and situational factors - of the stressfulness of the

situation (Cohen and McKay, 1984; House, 1981; Yue Wah, 1990). According to this view the perceived availability of social support influences in a positive way the appraisal of a situation as threatening, influencing in turn the coping of the individual with the situation.

On the other hand, there is the supposed 'problem' of whether measures of perceived social support accurately reflect indices of the person's existing available resources. It is conceivable that self-report measures may be biased by personality trait factors. Although this is definitely one possible risk of the use of measures of perceived social support, in the case that personality variables are taken into consideration, and especially when the focus of research is on the way that the individual perceives and evaluates himself/herself and the world around him/her, this may be an advantage rather than a disadvantage. Studies have reported that self-report indices of psychosocial stressors and mental health are highly correlated with trait neuroticism and negative affect (Brief et al, 1988).

2.3.7 Social Support and Individual Differences

Vinocur, Schul and Caplan (1987) pointed out that even when the psychological aspects of social support have been examined, the role of personality has, with rare exceptions (Kobasa and Pucetti, 1983; Lefcourt, Martin and Saheh, 1984; Sarason et al, 1985; Sarason et al, 1986) largely been ignored. In addition, most of the data is cross-sectional with very few longitudinal studies.

In the past, social support has been linked with a number of personality variables such as neuroticism, sociability and shyness (Cheek and Buss, 1981), locus of control (Lefcourt, 198), self-esteem (Stroede, Eagly and Stroede, 1977), assertiveness (Rathus, 1973), need for intimacy (McAdams, 1982) and so on. However, although individual differences have been shown to be consistently related to social support, it is relatively recently that the focus of research turned to the individual and his/her contribution to social relationships.

At this point, it is necessary to take into consideration findings from other areas of research, since the results could lead us to new promising directions for future research. Research on loneliness has shown that lonely individuals do not differ from non-lonely individuals in the frequency or number of social contacts, neither lack opportunities for social contact. However, they do differ on the way they perceive their social network and the way they perceive the availability of social support (Jones, 1981, 1982; Sansone and Helm, 1983). Perceived social support in turn has been shown to correlate with several personality variables such as anxiety, depression, hostility and locus of control, although there are sex differences in at least some of these relationships (Justice and Swenson, 1980; Sarason, Levin et al, 1983; Sarason and Sarason, 1982). Yue Wah (1990), as well as a number of other researchers, suggest that one likely interpretation is that feelings of loneliness and of social support may be located within the individual's interpretive framework rather than in the social environment.

Hobfoll, Freedy, Lane and Geller (1990) proposed the Social Support Resource theory, and they have paid particular attention to the way that personal resources affect social resources. According to this hypothesis, those rich in personal resources have a dual advantage over those who lack such resources. By possessing these resources they are more capable of withstanding stress. Hobfoll et al (1990) referred to the concept of hardiness (Kobasa, 1979; Kobasa and Puccetti, 1983), saying that when challenges supercede personal resource reserves, the hardy are more likely to possess social resources and to have the ability to use these resources effectively (Hanson et al, 1984). According to this view, 'this stems from the fact that the same personal resources are related to abilities to create and sustain close ties and to manage crises. Furthermore, those who cope more effectively are more likely to be attractive to supporters' (p.470).

Other researchers who have studied the relationship between neuroticism, extraversion, social anxiety, self-esteem and social support, concluded that the social networks of individuals with

specific personality characteristics differ from one another. In addition they may seek different aspects of social support at times of experiencing stress.

Costa and McCrae (1985) in their very well-organized longitudinal study of the aging found that Neuroticism (as it was measured by the EPI) correlated with two aspects of social support, quality of family and marriage and friendships. On the contrary, Extraversion correlated only with social participation. Furthermore, the authors conclude that their results suggest that social support remains stable over at least a twelve year interval. In particular they say that 'considering the moderate reliability of the social support scales, it is clear that levels of social support are quite stable within individuals. Like personality, the social world of the individual seems to change little in the latter half of life'. Sarason and Sarason, (1986) suggested also that perceived social support tends to have the stability usually found in personality traits.

The next question is to what could we attribute this stability; to what extent do stable personality dispositions continually create a stable social network and to what extent environmental consistency is responsible for the stability. Costa and McCrae (1985) in order to test this hypothesis, divided subjects into those who had moved to a new city between test administrations and those who had lived in the same city for at least ten years. The reason for that distinction was that relocation considered to be one of the most stressful and disruptive events in one's life. The authors expected that since every move entails at least a temporary disruption of social relationships, the mean level for social supports would decline for movers. They also expected that since the social opportunities provided by the new residence might be either greater or fewer than those afforded by the old residence, there would be little correlation between support before and after a move, found in lower mean level and lower retest reliability for movers.

However, despite these expectations, the results of this study showed that a change in

residence does not appear to influence the extent of social participation or friendships, possibly because these aspects of social support are quickly renewed after a move by individuals desiring them. In addition, further repeated measures analyses made it apparent that mean levels of social support did not differ because of moving. In fact, both movers and non-movers were virtually unchanged after six years and twelve years intervals. Little difference in mean levels was found between movers and non-movers before or after the move. All three forms of social support are maintained even after disruptions in social networks.

Costa et al (1985) argue that variables such as occupation, education, social class, race, religion, and ethnicity are the primary determinants of social participation, and that their stability accounts for the stability of social support. In respect to personality predispositions, although extraversion was expected to be related to social participation, there was no evidence to support this notion in this study. On the other hand, neuroticism was found again (as it was found by Sarason et al. (1983) to be highly associated with quality of family life and friends.

One suggestion is that anxiety, hostility, depression and other symptoms of neuroticism may result from inadequate social supports. On the other hand, it is also likely that the characteristics of individuals high in neuroticism make the development and the maintenance of satisfying and supportive social relationships difficult. Costa and McCrae (1980) argue that the first hypothesis is rather unlikely, given the stability of the trait of neuroticism across many decades of an individual's life. They say very characteristically, that 'surely something in the individual is responsible for this lifelong pattern; and these personality traits may well account for the perceived adequacy of social support' (Costa et al., 1985, pp.150-151).

A number of different explanations have been given to this relationship of social support with neuroticism. It has been argued that the distress that the individual high in neuroticism chronically feels despite 'objective' support may make him/her devalue the support he/she

gets. Consequently, it is not the existence or the absence of support per se, but the appraisal of support as adequate or inadequate by the individual. 'Dissatisfaction with work, family, relationships and other aspects of life are characteristic of neurotics; perhaps dissatisfaction with social support is simply one more complaint' (Costa et al, 1985).

On the other hand, another explanation given to the relationship between social support and neuroticism, is that there are objectively verifiable differences in support between persons high and low in neuroticism. It is possible that the behaviour of the individual high in neuroticism is such that it is difficult for relationships to be started and to be maintained.

Finally, Henderson, Byrne and Duncan-Jones (1981) found that indices of availability of social relationships and networks made negligible contributions to the prediction of mental health outcomes when personality and demographic factors were held constant. They report that neuroticism accounted for 69% of the explained variance in predicting psychological well-being, suggesting that more attention should be paid to personality factors in future research.

Vinocur, Schul and Caplan (1987) argue among others that it is reasonable to expect that stable cognitive or attributional styles affect how social support offered by others is perceived, interpreted and experienced. People who are predisposed to view themselves and their personal experiences in a negative light are thus hypothesized to misperceive or underate the support provided to them. The authors refer to a stable personality disposition that they call 'generalize negative outlook'. They used three different scales to assess it (Parental Support scale, Resentment scale and Self-esteem scale). Their results suggest that generalized negative outlook was a significant determinant of the perception of obtained support. The more negative the outlook the less the obtained support. It was also found to have a small, yet significant, negative influence on the inclination of the significant other to provide social support and at the same time, it was found to have a direct influence on poor mental health.

2.3.8 Social Support, Individual Differences and Negative Affectivity

Negative Affectivity (NA) is an individual difference variable, which as has been suggested by Stokes and McKirnan (1989) may underlie the relationship between perceived social support and psychological distress. Watson and Clark (1984) have conceptualized Negative Affectivity as a pervasive, broad personal disposition that subsumes trait anxiety, depression and low self-esteem. People who are high on NA tend to focus on negative aspects of themselves, others and the world in general. So Stokes and McKirnan (1989) very interestingly, argue that, given adequate or even high levels of objective social support, people high on Negative Affectivity may feel dissatisfied with any support they receive. According to this view, subjective dissatisfaction with social support, as well as the correlation of subjective support with psychological distress, reflects internal cognitive processes more than objective deficiencies in the person's social environment (p.257).

According to Cohen and Wills (1985) who reviewed a large number of studies on this subject, although there is evidence to support the buffering effect of social support on stress, this is true only if the perceived availability of social support was assessed and not when it is measured in more objective terms (e.g. measuring the presence, extent and density of one's social network). This result has led a number of researchers to argue that social support should be seen primarily as a subjective state, rather than an objective fact (Heller, Swindle and Dusenbury, 1986; Thoits, 1985; Turner, Frunkel and Levin, 1983).

Sarason and Sarason (1982), and Sarason, Levin, Basham and Sarason (1983) found that people who perceived themselves as having high levels of social support, were more happy, hopeful and optimistic, lower in anxiety, depression and hostility than those who perceived less social support. In 1986, Sarason and Sarason argued for the notion that social support should be conceptualized as an individual difference variable as any other. They demonstrated that perceptions of social support were stable over a period of 3 years and in fact more stable than were measures of anxiety, depression and hostility. Sarason, Ruhlman and Wolchik

(1988) also found that 3-year stability coefficients for the number of and satisfaction with social contacts were .64 to .55. Cohen, Mermelstein, Kamarch and Hoberman (1985), and Gottlieb (1985) have reported similar results which are consistent with the idea that perceived support is not simply a veritable report of social resources, but instead may be a product of ongoing psychological states within the individual.

Moreover, Stokes and McKirnan (1989) adopt and suggest a similar view of social support, stress and individual differences. They argue, and there is enough evidence to support against the simple hypothesis that people become depressed because of stress or a decrease in social support, and that social support serves as a buffer to reduce the degree to which stress leads to depression or maladjustment. They also argue that it may be unreasonable to hypothesize that a wholly 'external' environmental event causes depression, 'with the nature or frequency of such an event being completely independent of any characteristics of the person'(p.274). They do recognize that a negative event may cause distress and unhappiness but 'as a general model of the onset of depression, this may be unrealistic'. They suggest that a more meaningful approach would have been 'to abandon simple distinctions between social and personal causality, and to examine how personal dispositions both induce psychological states (such as depression), and affect interactions with the social environment'(p.274).

At the core of this approach is the idea that external social events are influenced by stable characteristics of the person. This view supports the notion that people actively create their social environment, but at the same time differs from the perspective that the experience of stress or support is 'nothing but' a manifestation of NA or incipient depression. It supports rather the hypothesis that both stress and support 'are seen as real events that serve as a proximal cause of depression, yet are themselves made more likely by a long-standing, highly generalized personal disposition'. They finally suggest that it may not make sense to create linear, causal models of stressful events or other provoking agents, but perhaps what we need is to recognize that the causality among variables such as personality characteristics, social

support, other buffering or vulnerability factors, depression, anxiety and so on, is mutual. Or a step further, they suggest that we may need to abandon notions of causality altogether and to allow models that permit the co-occurrence of variables without implying causal relations.

Social support measures have been shown to be negatively related with Negative Affectivity (Sarason et al., 1986; Vinokur, Schul and Caplan, 1987), and in the past social support has been repeatedly linked with the more traditional trait of Neuroticism. Social support has been associated with self-reported health complaints, although not consistently, but has been reported to be completely unrelated to objectively assessed health problems (Cohen and Wills, 1985). These results strongly support the argument by Watson and Clark (1984) that the 'assessment of social support cannot be divorced from the measurement of individual differences in Negative Affectivity. Not only may social support help buffer against the experience of physical and psychological distress (including loneliness) in the face of multiple life changes, but conversely, Negative Affectivity may play an important role both in general perceptions of social support and in the creation and maintenance of social networks' (Clark and Watson, 1991, pp.232). The results mentioned by Teichman (1974), Gleason (1969) and Kaplan (1968), may give a direction to a possible explanation of the observed pattern.

In conclusion, it could be argued that the inclusion of individual differences variables would be particularly relevant in the case of using measures of perceived social support -measures that are based on the belief that the perceived availability of social support and the appraisal of a situation as stressful are more influential to the psychological and physical well-being of the individual rather than the social network and the external 'stressors' per se.

2.4 Introduction to Negative and Positive Affectivity

In this last section of the present literature review, a number of basic points regarding the constructs of Positive and Negative Affectivity will be discussed. After the presentation of the literature on social support, happiness and loneliness, it is rather obvious why those two broad

personality dimensions are being considered in the present series of studies.

In 1983, Rorer and Widiger wrote that 'in the field of personality literature reviews appear to be disparate conglomerations rather than cumulative or conclusive integrations' (p.432). One of the early exceptions to this tendency were the review by Watson and Clark (1984), who reviewed the literature relating to a number of specific personality measures -which despite dissimilar names such as trait anxiety, neuroticism, ego strength, general maladjustment, repression-sensitization and social desirability, nevertheless intercorrelate highly. They concluded that these dimensions all represented facets of a broad underlying construct which they termed Negative Affectivity (NA), following Tellegen (1982). This was one of the early attempts to present a comprehensive view of the traits that integrate data from a wide variety of relevant research, expanding the Eysenckian 'traditional' construct of Neuroticism to Negative Affectivity and later on, the construct of Extraversion to Positive Affectivity.

Since then a substantial number of papers have been published on different areas of research and these two personality dimensions have been investigated in more detail in relation to physical and mental health, in relation to life stress and daily hassles, job related stress and job satisfaction, as well as in relation to a number of other personality factors such as optimism/pessimism, coping and attribution style (for reviews Watson and Pennebaker, 1989). In this section the definitions of the construct of Positive and Negative Affectivity will be presented and a number of interesting points from research that has taken place during the last decade on the constructs will be summarized. Finally, the possible role of Negative Affectivity and Positive Affectivity in the adjustment process during university life will be discussed.

2.4.1 Negative Affectivity

Negative Affectivity (NA) has been defined as a mood dispositional dimension. It reflects pervasive individual differences in negative emotionality and self-concept: high Negative Affectivity individuals tend to be distressed and upset and tend to have a negative view of self

and others, whereas those low on the dimension are relatively content and secure and satisfied with themselves (Watson and Clark, 1984). The following key points from this first conceptualization of Negative Affectivity are worth mentioning:

(a) The negative mood states experienced by persons high in Negative Affectivity include subjective feelings of nervousness, tension and worry; thus NA has as one of its central features what others have called 'trait anxiety' (Spielberger, Gorsuch and Lushene, 1970), but Negative Affectivity represents a more general negative condition.

(b) Negative Affectivity is also viewed as a very pervasive disposition that manifests itself even in the absence of any overt stress. At the same time, Negative Affectivity is simultaneously a very broad and yet cohesive dimension. Although it manifests itself in a number of very diverse areas such as emotions, cognitions, social attitudes, self and worldview, and behavioural adjustment, it is however a unitary concept (Clark and Watson, 1991).

(c) Negative Affectivity is assumed to centre on conscious, subjective experience rather than on an objective condition; in other words, it emphasizes how people feel about themselves, others and the world in general rather than how effectively they may actually handle themselves in the world. Although high levels of Negative Affectivity may be indicative of maladjustment, Negative Affectivity differs from previous concepts of general maladjustment (e.g. Jessor and Hammond, 1957; Kible and Posnick, 1967) and ego resiliency (Block, 1965).

(d) Poor self-esteem and the negative mood of high Negative Affectivity individuals seem to be linked, to a degree, to their tendency to dwell upon and magnify mistakes (Block, 1965), frustration, dissappointments and threats. Those better able to put unpleasant experiences behind them-for example persons low in Negative Affectivity-are expected to feel better about themselves, others and the world in general.

(e) Finally, although Negative Affectivity has several aspects such as negative mood, negative cognitions and low self-esteem, Negative Affectivity is viewed as a unitary dimension; a construct very similar to Neuroticism, but multifaceted (Watson and Clark, 1984).

In summary, it can be said that Negative Affectivity is a unitary but at the same time multifaceted construct, characterised by a number of distressed mood states such as anxiety, tension or jitteriness, and worry, which are central, but anger, frustration, hostility, contempt, disgust, guilt, worthlessness, dissatisfaction, feelings of rejection, sadness, loneliness, discomfort, irritability, and so forth are frequently experienced by high in Negative Affectivity individuals, even in the absence of obvious stressors (Watson and Clark, 1984; Watson and Tellegen, 1985; Clark and Watson, 1991).

An overview of the literature by Clark and Watson (1991) has given a number of diverse and very interesting points on the Negative Affectivity dimension. In addition to the points mentioned above, high NA individuals seem to be more focused on themselves and to be significantly more introspective. Some researchers have argued that high NA individuals tend to be more realistic and down to earth than low NA individuals, although others disagree with this belief, suggesting that they simply have unrealistic expectations about themselves, others and life in general.

However, this self-focus, because it includes an acknowledgment and examination of the negative aspects of oneself, may in turn contribute to the pervasive distress, negative self-concept and generally poorer adjustment that characterises high Negative Affectivity individuals.

As regards the way of viewing themselves, others and the world, a number of studies have shown that the high and low Negative Affectivity individuals tend to willingly acknowledge and even exaggerate information about themselves (Zahn, 1960); accept negative information about themselves more easily than low Negative Affectivity subjects (Shavit and Shouval, 1977); are better at recognizing, recalling and relearning stimuli that have been associated with failure (Eriksen, 1954; Eriksen and Browne, 1956; Tempone, 1964; Truax, 1957); give less favorable peer ratings in dyadic interactions (Bass and Fielder, 1961; Kaplan, 1968) -

although this information in some cases seems to be surprisingly more accurate. Finally, another very interesting point that seems to link Negative Affectivity and social support at times of stress, is that in stress situations, individuals differing in Negative Affectivity, show varying degrees of desire for social affiliation and differ in their responses to social contact.

2.4.2 The two factor model

It has become increasingly clear that Negative Affectivity alone fails to capture significant aspects of physical and mental health. In both the mood and personality literature, a second major factor - Positive Affectivity, which is traditionally called extraversion -inevitably emerges as a separate and indispensable dimension. Positive Affectivity is now being viewed, like Negative Affectivity, as a mood-based disposition that has broad implications for behaviour and interpersonal relations (Watson and Clark, 1984). Recent research has shown that Positive and Negative Affectivity, although the terms might suggest that these mood factors are opposites i.e. negatively correlated, they are in fact independent and uncorrelated dimensions (Watson and Tellegen, 1985; Diener et al., 1986).

2.4.3 Central Features of Positive Affectivity

Positive Affectivity (PA) is viewed as a broad, higher order disposition that is composed of several primary traits. The basic component is a positive mood, and five additional facets complete the construct:

- (a) energy: feeling of mental alertness and of interest, as well as perceived health and vigor;
- (b) affiliation and ascendance: which is more closely associated to extraversion, and reflect differences in sociability, interpersonal warmth, social dominance and exhibitionism;
- (c) venturesomeness: tendencies toward excitement seeking and finally,
- (d) ambition: which reflects individual differences in mastery-seeking and perseverance.

With a few words it can be said that Positive Affectivity forms the core of extraversion, with components of well-being, energy, social dominance, affiliation, and perhaps achievement motivation and adventurousness (Clark and Watson, 1991).

Until recently, the Positive Affectivity dimension had been rather ignored in comparison with the studies of Negative Affectivity. However, Positive Affectivity seems to be highly positively related to social support and negatively related to loneliness (Stokes, 1985). In addition according to Diener (1984), well-being is conceptualised as more than the mere absence of distress; it is intended to be primarily a positively balanced construct and should therefore be strongly Positive Affectivity related.

2.4.4 Stability, Change and the Genetic Basis of Negative Affectivity

One of the unresolved puzzles of Negative Affectivity is that it exhibits a fair degree of long term stability, but also may show significant change over a period of one to five years. In other words NA seems to represent an unusual combination of change and stability. A number of studies have shown an impressive stability in thirty years test-retest coefficients (Leon et al, 1979) and significant Negative Affectivity transient mood correlations across a span of a ten years (Costa and McCrae, 1980). On the other hand, there are studies which have shown that Negative Affectivity's long term stability is not as high as that of many other dispositions and that considerable changes in that level over the course of 6 months and more are not unusual.

According to Watson and Clark (1984) this may stem partly from the fact that Negative Affectivity is conceptualized as a trait. However, it is widely recognised that major life crises and events, or highly significant personal relationships and even psychotherapy may alter a person's characteristic temperament and viewing of self, others and life in general for a period of time or even more permanently. More systematically collected data and a longitudinal design are necessary in order to test these ideas. Negative Affectivity is considered to have a significant level of heridability and is generally agreed that the heritability of Negative Affectivity falls between .30 and .55 whereas that of Positive Affcetivity falls more narrowly between about .35 and .50 (Pedersen et al., 1989; Tellegen et al. 1988).

2.4.5 Measurement of Negative Affectivity

Until recently the Bradburn Affect Balance Scales (1969) were supposed to be a good measure of Negative Affectivity. However, recent research has shown that there is a number of flaws /limitations and several undesirable psychometric properties in the use of these scales (Diener and Emmons, 1984).

High intercorrelations among a large number of common tests purporting to measure trait anxiety, depression, neuroticism or defensive and socially desirable responding suggest that they can reasonably be considered as alternative measures of the Negative Affectivity construct. Watson and Pennebaker (1989) suggest that there is a number of standardised scales that can be considered to be good, valid and reliable measures of the construct such as the Eysenck Personality Inventory Neuroticism scale (EPI-N, Eysenck and Eysenck, 1968), the EPQ-R (Eysenck and Eysenck, 1981), the NEO Personality Inventory-Neuroticism scale (NEO-PI; Costa and McCrae, 198), the Taylor Manifest Anxiety scale (TMAS; Taylor, 1985), the State-Trait Anxiety inventory scale A-trait (Spielberger, Gorsuch and Lushene, 1970), the Repression-Sensitisation Scale (R.S; Byrne, 1961) and the PAT Anxiety Scale (Krug, Scheler and Cattell, 1976).

2.4.6 Summary of recent developments and research on the area

During the decade since the first publication on the constructs of Negative and Positive Affectivity, two types of research can be identified. The first type of research attempts to investigate the possible relationship of Negative Affectivity (although not always under the Negative Affectivity term) with a number of personality, situational or outcome variables such as optimism /pessimism, attributional and coping style, perception of daily hassles, social support and physical symptoms, health complaints and actual health problems, job and marital satisfaction and so forth (Watson and Pennebaker, 1989)

The second type of research has been concerned primarily with differentiating NA from its

companion dimension Positive Affectivity. These studies have served a twofold purpose of: (a) demonstrating that Negative Affectivity is not simply a generalized 'good' versus 'bad' response bias, but is specifically oriented toward negativity and, (b) examining the specific convergent correlates of Positive Affectivity in order to understand this distinct and complementary dimension more fully (Watson and Pennebaker, 1989).

In addition, two other trends can be identified in the research of Negative Affectivity: (a) the first one is characterized by viewing Negative Affectivity as a methodological nuisance in research where self-reported measures are involved, especially in the study of subjective well-being, job and marital satisfaction etc., giving 'mistakenly' inflated results and, (b) the second trend, views Negative Affectivity as a pervasive personality dimension which is substantial on its own right, giving an other perspective to a whole range of research areas. The following paragraphs, will summarise some key points of research that are relevant to the concept of Negative Affectivity and they will be used to illustrate the range and diversity of research related to Negative Affectivity.

2.4.7 Life Stress and Daily Hassles

Given that the essence of Negative Affectivity is a propensity to experience negative emotions and to view the world and oneself through these negative lenses, the particular field of expression is less important than the pervasive negativity itself. Just as psychological and physical complaints are supposed to form a common dimension of somatopsychic distress, perceived stress and daily hassles are further content areas that fall under the broad influence of Negative Affectivity. Depue and Monroe (1986) speculate that the breadth of this dimension may stem from a 'general susceptibility to medical and psychological disorders, a heightened vulnerability to the development of several conditions over a lifetime' (p.48) (Watson and Clark, 1984).

2.4.8 Attributional Style and Pathogenic Cognitions

There is a great deal of research on attributional style and its relation to depression in particular. However, although Neuroticism is one of the more fully defined and investigated theoretical constructs in the psychology of personality, it is only comparatively recently that research is taking place into the relationship between the trait and mechanisms of cognitive processing.

The most likely area in which Negative Affectivity may influence cognitive processing would be expected to be that of the processing of emotional rather than neutral material, given that it has been considered as influencing a person's responsiveness to emotional stimuli. However, some studies show that there do appear to be some forms of cognitive processing of neutral material which are influenced by Neuroticism, the core component of Negative Affectivity, and its interaction with other personality variables, that measuring Extraversion-Introversion (Eysenck, 1977, 1982).

In general, there is sufficient evidence to support the hypothesis that high Neuroticism individuals, exhibit consistent idiosyncracies in the processing of emotional information, especially in the processing of material relating to self (Young and Martin, 1981; Martin et al, 1983). More specifically it has been shown that high-Neuroticism individuals tend to recall more unpleasant experiences.

2.4.9 Negative Affectivity as a nuisance factor in research

Stress research has traditionally focused on the environment, attempting to identify acute events that generate stress responses. Underlying such studies is the implicit assumption that once relevant stressors are identified they can be reduced or eliminated, thereby attenuating these stress reactions (Watson, Pennebaker and Folger, 1987).

Another relevant area of research where this problem is also present, concerns hassles, life

events and their relation to stress and health problems. The measurement of hassles and of major life events and changes has been found to be related to reports of psychological distress and physical symptoms (DeLongis et al, 1982; Lazarus, 1985). The basic argument by Watson et al (1987) is that the process related to the perception of hassles is the same process related to the perception of symptoms. High Negative Affectivity individuals tend to be distressed and dissatisfied, to suffer from poor self-esteem and to perceive more personal health problems. A person who feels 'bad' will perceive more hassles and symptoms. To some extent each may cause the other and both reciprocally may influence one another making causality difficult to determine.

The basic suggestion to overcome this problem is the measure of both subjective and objective components of stress. The point that Watson et al (1987) make is that researchers need to go beyond simple subjective measures and that they should try to assess subjective and objective factors as independently as possible.

On the other hand some researchers, argue that Negative Affectivity may not just be a psychometric bother, in stress research, but rather a theoretical variable with which to be reckoned. Generally, this is implied by Dohrenwend et al (1984) assertion that 'some life events.... are consequences of personal predispositions' (p.22). Depue and Monroe's (1986) analysis of life stress research suggested that Negative Affectivity is the trait of concern, and Staw et al (1986) found that Negative Affectivity type measures taken in early adolescence are predictive of overall job satisfaction in later adulthood ($r = -.37, p < .01$) (Brief, Burke et al, 1988).

In summary, although many studies have suggested that Negative Affectivity has little or no effect on physiological outcome, there are enough discrepant findings to preclude any firm statements about Negative Affectivity's role in stress aetiology on that basis (McCrae in Schaubroek et al, 1992).

The above arguments demonstrate that despite the possible limitations of the construct, Negative Affectivity should not remain an unmeasured variable in the study of stress. Both its role as a 'methodological nuisance' and more importantly as a plausible cause of stress and maybe maladjustment warrant additional attention.

2.5 Summary and Conclusions: A Synthesis

This chapter was an attempt to integrate a number of interesting points from four areas of research: loneliness, happiness, social support and personality. The rationale behind this work was that although all these areas of research have different starting points, they all share many common conclusions.

The first general conclusion is that all these concepts are highly interrelated: Loneliness which is considered by many theorists to be a very significant indicator of poor adjustment, is negatively related with happiness and social support. In turn, happiness has been shown to be consistently related to successful involvement with people. Finally, loneliness, happiness and social support have been found to have a number of significant personality correlates: in fact, the same personality correlates. In addition, a high number of those personality correlates appear to be 'aspects' of the newly conceptualized personality constructs of Negative and Positive Affectivity. However, despite of recent research findings in this direction, very few attempts have been made to adopt such a unifying perspective.

One of the few such attempts which has been undertaken by some researchers^{is} in the area of Loneliness. The Cognitive Bias Model, suggesting that loneliness is a reflection of Negative Affectivity, and it is this pervasive disposition to view oneself and the world in a negative way that accounts for the relationship between loneliness and the individual difference variables. Costa and McCrae (1985) give similar-though not so direct- suggestions. Research on social support suggests repeatedly that objective measures of social networks are not as good predictors of social support and its positive effects on Well-being as subjective

satisfaction with social networks, possibly influenced by personality factors. Without arguing that objective environmental factors do not play an important role in individual's well-being, it is hypothesized that cognitive appraisal of self, others and the world in general affects the way that individuals perceive situations and react to them. Trait Negative and Positive Affectivity can be hypothesized to be related to many of the findings in these areas of research.

In the present studies, among other things, these relationships between loneliness, well-being and adjustment, personality and social support will be investigated in the context of students' adjustment to University life. In the next chapter, the most significant, recent, longitudinal studies on students' adjustment will be discussed in detail. In addition a number of methodological points will be discussed.

CHAPTER 3: Literature Review III

Recent Studies on Students' Adjustment to University life

3.1 Introduction

In this section, the more well-constructed recent studies on students' adjustment will be discussed in detail, given that most of the present studies at Universities of Stirling and Glasgow were based on this work previously done. In particular, after reference to the very well organized international study by Klineberg and Hull (1979), and the studies on homesickness by Fisher et al (1985; 1987; 1988; 1991), the studies by Cutrona (1982) Shaver, Furman and Buhrmester (1986), James and Moore (1987), and finally by Brewin, Furnham and Howes (1989) will be discussed. All these studies, excluding the studies by Fisher and the study by Brewin et al (1989), took place in Universities in the United States. One additional reason for referring separately to these studies, is that all are longitudinal.

3.2 Klineberg and Hull (1979): The study of Adjustment as a Life History, and the Modified Culture Hypothesis

Klineberg (1981) suggested the treatment of the academic sojourn as a form of a clinical life history. In his studies with his colleagues, specific attention was paid to case studies which followed the development of the newly arrived foreign students during the first academic year. The purpose of these case studies was, not just to supplement the hard data available, but also to focus attention on the adjustment process as well as on other points: sources of satisfaction, difficulties encountered, changes in attitudes and suggestions for improving that academic sojourn. They tried and managed to keep the methodology as simple as possible, in order to make it less liable to errors or misunderstandings for the students. The questionnaire which was finally used contained 155 items, with the English version numbering 16 pages. 2, 536 students from all around the world completed the questionnaire in eleven countries.

According to Klineberg and Hull (1979) the claim that their study contributed something new in spite of all that had already been published rests upon the following considerations: (a) first, the fact that it was the first truly international investigation, in which the same

techniques were applied and the same questions asked of the respondents in 11 countries worldwide: Brazil, Britain, Canada, the Federal Republic of Germany, France, Hong-Kong, India, Iran, Japan, Kenya and the United States. (b) Second, the questionnaire that had been given had not only been applied internationally but it was constructed internationally. (c) Third, the questionnaire was designed to be as simple and comprehensive as possible and to permit the establishment of interrelationships among the various factors that might affect adaptation or coping process during the academic year. (d) Fourth, one of the basic goals of the study was to see how probable a number of theories proposed at that time were, such as the U-curve process of adjustment. (e) Fifth, in addition to the questionnaire, given at one particular time, during the sojourn of a foreign student, they also interviewed a number of students; and finally, (f) part of the study was longitudinal with 20 students being followed up throughout the academic year.

Their results are very interesting and can be summarised in the following: (a) In terms of motivation, of the total population 33.7% indicated that obtaining a degree or diploma, from that country was a very important academic reason. (b) Foreign students are a high risk group, under considerable stress. (c) The stress is more likely to be experienced in the form of physical complaints rather than psychological complaints. (d) Foreign students are more likely to seek medical than psychological help, which the latter sought only after all other resources have been exhausted. (e) There is considerable commonality to foreign students psychosomatic and emotional problems. (f) Previous travelling experience reported by the students was associated with better coping skills for the present academic sojourn, as well as fewer difficulties and problem areas. (g) A great amount of disappointment and discouragement was found when the students were seeking, were open to and were expecting more social contact with local students and individuals than what they found. (h) Although loneliness and homesickness were found among the students, these factors were not so widespread as was personal depression. Of the population responding to this item, 25 percent reported that they had found personal depression to be a source of difficulty for them. (i) No support for the U-curve process of adjustment in general, pointing out though that it does

occur but only in a minority of cases. (j) Although as they say, they are not prepared to argue that contact with local students and individuals is the most important variable in the transnational coping process, they argue that it is one of the most important factors, together with information acquired prior to departure from the home country and previous experience of travel.

Hull (1978) was the first who formulated the 'modified contact hypothesis' and support for this hypothesis was argued that was found in this study. According to this theory, those foreign students who are satisfied and comfortable with their interactions with local people and the local culture during their sojourn would report broader and more general satisfaction with their total sojourn experience, not only non-academically but also academically. Here 'local people' refers to non-students and students alike. The basic argument is that contact is a complex variable that can generate more contact which in turn, is generalised as a positive or negative experience throughout the total sojourn.

Although Klineberg and Hull (1979) argue for the modified contact hypothesis, which may be partly able to explain with reasonable arguments the successful adjustment of students with more contact with locals, there is one detail that may be quite significant. As they say, 'somewhat surprisingly' Klineberg and Hull did not find that the presence or absence of a local student as a roommate played a very important role in the social contact experience and feelings of the students; 'the important factor was rather the access to the local individuals'. The point is that the local student-roommate is an individual immediately available for social contact which could facilitate, according to the modified contact hypothesis, the foreign student to come in contact with other locals and according to Bochner's (1982) theory of culture learning could facilitate the adjustment process through the learning of the culture. However, whether a positive relationship between the two students-roommates will develop or not may be influenced by a number of various factors with personality as one of the most important.

One important point mentioned by Klineberg and Hull (1979) regarding the sort and number of problems experienced by foreign students deserves more attention. They found that the foreign students who reported 'few' difficulties in the sojourn tended also to be those who were primarily with local students -or non-students- when they were with others, and had named a local as their friend. Their lodging was shared with a local student or with their spouse. They were less likely to report personal depression as a problem nor to report discrimination. These respondents with few difficulties also reported a more favourable opinion with regard to the local community, were less frequently lonely and homesick, rated the quality of their teachers and their helpfulness more favourably and were more satisfied both academically and non-academically with their sojourn experiences (p.167).

On the other hand those students who reported personal depression were: (a) more likely to say that they felt being discriminated at in the host country, (b) more likely to report a less favourable opinion regarding the local people, (c) more likely to report loneliness and homesickness and, (d) more likely to report having found the helpfulness of teachers at the sojourn institution to be less satisfactory.

Although it is possible that social contact with locals and previous experience of travel may facilitate adjustment to a new environment, it is also quite likely that individual differences may account for these two overall opposite -negative and positive perception of -sojourn experiences. What is obvious in these two findings is that on the one hand there is a number of overall negative experiences of perceived discrimination, homesickness and loneliness, lack of adequate social contact with locals, dissatisfaction with teachers' attitude, and general unhappiness, while on the other hand, there is the reporting of a number of positive experiences with the academic and non-academic aspects of the sojourn including perceived satisfaction with the locals, the place and the academic staff, and absence of homesickness, loneliness and personal depression. Although it is possible that contact with locals may influence the successful adjustment of the student and his/her overall satisfaction with the experience, it is also possible that underlying major personality factors may influence the

development of satisfactory relationships with host and fellow nationals, the positive attitude toward the host country and the general satisfaction with the experience. In conclusion, as Klineberg and Hull (1979) mention as their closing remark, more research seem to be needed on basic personality factors that may relate to many of these findings.

3.3 Fisher et al.(1985; 1987; 1991): Homesickness and the Multicausal Descriptive theory

Fisher and her colleagues studied homesickness in school children and undergraduates. Her book 'Homesickness, Cognition and Health' reviews five theoretical models which attempt to provide a basis for understanding the distress evident for some of those who leave home to study in another new environment, and gives a number of results from studies on homesickness over the last ten years.

In an attempt to find out the incidence of homesickness among students she asked them to define the term first. A large number of definitions were given by homesick and non-homesick students and although there is a prominent notion of homesickness as 'missing home environment/ parents/family/friends' there seems to be a confusion of homesickness with other negative emotions, possibly due partly to the even more negative perceived implications of 'feeling unhappy/ lonely/ unloved/ insecure/depressed/uneasy/ill/unable to cope or even unable to do anything'. According to Fisher, in the U.K studies (1983, 1985), found that a stable 60%-70% incidence of homesickness reporting was obtained in longitudinal studies. She also found that incidence declined from the first to the second, third and fourth term of the University, but there was still 18-30 percent incidence in the fourth year. No sex or age differences were found.

Fisher (1987, 1988) in an investigation of homesickness in first year students, reached the following conclusions:

- (a). Homesickness is a complex syndrome in which preoccupation with home and the past are paramount and associated with distress.

- (b). Homesickness appears to be largely independent of age factors or sex differences.
- (c). Episodes of homesickness are self-reported for about 50-70% of most populations studied where students do not have much control over the decision to come to university.
- (d). The episodes occur in the morning or at night suggesting that the day's activities have the capacity to keep feelings of homesickness at bay.
- (e). Episodes of homesickness thoughts are more likely during passive tasks and during 'mental' rather than physical activity.
- (f). Severely homesick individuals (about 10-15%) report the experience of homesickness to be continuous.
- (g). Homesickness subjects score higher in psychoneurotic symptoms and absent-mindedness' as compared with non-homesick students. They have difficulties with concentration suggesting that control over the attentional mechanism is affected.
- (h). Homesick subjects are more likely to report low decisional control over the move, to be separated from home by greater physical distance and to be depressed prior to leaving home.
- (i). Homesick subjects are more likely to have intrusive trains of home-related thoughts rather than to be worrying about problems created by the move, or by problems which may exist prior to the move.
- (j). Homesick subjects perceive home in positive terms and are fast to produce positive thoughts of home and negative thoughts of University.
- (k). The new University environment provides a source of strain for all students as evidenced by increases in psychoneurotic symptoms for resident and home based students alike.
- (l). Homesick subjects are more likely to be dissatisfied with university and to report high demand and low control-the ingredients associated with job strain in other occupational settings.
- (m). Those who have left home to reside in an institution before, are less likely to report homesickness. Leaving home for other reasons may not ameliorate homesickness (Fisher, 1991, pp.113-114).

Fisher has proposed a 'computational job strain model of homesickness'. According to that model, it is hypothesized that there is a period of cognitive appraisal of new circumstances relative to the home environment. The new environment is such that it can offer more challenges and opportunities than the home environment but less comfort and security. The individual weighs and compares the qualities of the new environment with the qualities of the home environment. This computation is supposed to determine whether the job strain is perceived or not. The student who perceives low control over academic life will be likely to experience job strain. In such cases, the environment is not considered to be any more challenging but rather threatening, and the response to this could be episodic homesickness where reveries of the past predominate as a form of escapism or even as part of the decision making about returning home.

This model seems to have face validity (it has actually been applied in the study of perceived job-related stress in nurses), and a number of points are particularly worth mentioning: (a) the longitudinal design of the studies, (b) the use of multiple methods to collect data (questionnaires, interviews, diaries etc.), and (c) the high response rate in most of the studies. However, there appear to be quite a few problems, especially with the data that has been used to support it. The first problem that can be identified is the definition of 'homesickness' on which the studies were based. As discussed before, the definitions given by the pupils and students seem to include a wide range of negative emotional states, such as anxiety, loneliness, depression, perceived lack of social support, perceived inability to cope with problems and so on. It is likely that reporting being homesick rather than accepting being 'depressed' or 'unable to cope' is easier. In addition, the questionnaire that has been used, the Dundee Relocation Inventory (DRI), includes a number of items that seem to be rather related to other constructs: for instance, 'I forget people's names', 'when I do a job, I do it well', 'I feel lonely here' and so on. As regards the construct validity of the DRI, in other words to measure what it claims to measure, Fisher says that 'unfortunately, unlike the situation for clinical disorders, there are no groups of individuals diagnosed by professionals

available. Therefore, there is no way to establish a criterion group in order to establish that they score high on that' (Fisher, 1989; p.140). Despite all these points about the questionable validity of the measure, almost all the studies have been based on this inventory.

In addition, the fact that a number of home-based students reported being homesick in one of the studies (Fisher, 1987), may not suggest that 'homesickness' may occur irrespective of being home or away from it, due to the negative appraisal of the new environmental demands, as Fisher suggests, but rather to the confusion surrounding the concept of 'homesickness', which probably is confused with depression, anxiety, loneliness and perceived lack of social support.

The other measure that has been used to differentiate homesick from non-homesick students- the Cognitive Failure Questionnaire (CFQ, Broadbent et al, 1982), is supposed to measure absent-mindedness and is viewed more as a trait rather than a state. However, absent-mindedness seems to be related to a difficulty of concentration in a task, which is often considered to be a characteristic symptom of anxiety and depression. In fact, although Fisher's model is based on this premise that CFQ scores are indicative of homesickness, this has not been consistently supported even by Fisher (1985).

An other point that requires more attention is the fact that although the job-strain model is based on the perceived control of the individual over the environmental demands, no measure of locus of control has been used; the only measure used was a number of questions related to decisional control over the move.

One of the most interesting findings concerns comparisons of homesick and non-homesick students prior to their leaving home. It was found that 'homesick' subjects (probably students with adjustment difficulties in university life), had greater psychological disturbance particularly manifest in raised obsessiveness scores, and somatic symptoms, psychoneurotic

scores and depression, measured by the Middlesex Hospital Questionnaire (Fisher, 1987). This point requires more attention in future research, given that it may imply the existence of a personality vulnerability factor.

3.4 Cutrona (1982): Loneliness among College students

Cutrona (1982) conducted one of the most interesting first longitudinal studies on the psychosocial adjustment of home students. The study was based partly on data collected and analyzed by Bragg, M. (1979) for his doctoral dissertation, and partly on data collected by Russell, Peplau and Cutrona (1980, 1982). This is one of the more thorough studies in this area, and one of the very few longitudinal studies which have followed up first year students during one academic year, at the UCLA University.

Cutrona (1982) argues that 'since College students all face relatively similar social situations, as contrasted with other 18-year-olds who take on a variety of jobs and living situations, they provide a unique research opportunity. In particular, studies of loneliness among college students may highlight individual differences in factors that contribute to successful social adjustment during an important developmental transitional stage' (pp. 292). In addition, she argues that it is quite important clinically, as well as theoretically, to understand factors that enable some college students to adjust satisfactorily, as well as factors that probably prevent others from doing so. Given that loneliness appears to be one important reason for a very high drop out rate from university and loneliness may also contribute towards problems such as alcoholism, drugs use and campus suicides (Newman, 1971; Lamont, 1979), loneliness was therefore regarded as the main dependent variable of interest as an indicator of successful (or unsuccessful) psychosocial adjustment to University life.

This study (Cutrona, 1982) was concerned with three main aims: (a) to investigate possible causes of loneliness, (b) to investigate the impact of different kinds of social relationships on loneliness, and finally, (c) to examine the type of relationship problems that are most likely

to foster problems. A total of 354 students were recruited to participate in two questionnaire sessions: the first was 2 weeks after their arrival at university, and the second was 7 weeks after their arrival. Seven months after their arrival at the university, a sub-sample was contacted to participate in a third session questionnaire. A total of 162 students (46%) of the original sample participated at seven months follow up. The students who took part in the study were Introductory Psychology students who received course credit for their participation. Loneliness was assessed at all three times using the original UCLA Loneliness Scale (Russel, Peplau and Ferguson, 1978).

The main findings of the study were as follows:

(a) 75% of the students had experienced at least occasional loneliness since their arrival on campus. No sex differences in loneliness were found. (b) At the second testing, 7 weeks after school begun, mean loneliness scores had dropped significantly ($t=2.61$, $df=161$, $p<.01$), and at the time of 7-month follow up, loneliness had dropped even more significantly ($t=5.75$, $df=161$, $p<.001$). By the end of the term only 25% of the sample reported having experienced loneliness during the previous two weeks. (c) With regard to the causes of Loneliness, the researchers tried to differentiate between precipitating events and maintaining causes. Precipitating events involve changes in the person's social life, such as leaving home to go to college. Precipitating events very often may cause initially a discrepancy between the person's actual and desired social relationships. 'However, when an unfavourable balance persists between the social life individuals want and the one they actually have, they may begin to consider maintaining causes of Loneliness' (Cutrona, pp. 294), which prevent people from adjusting to their altered social situation and achieving a satisfactory social life, such as shyness, lack of social skills or an unfriendly environment.

In Cutrona's study, precipitating and maintaining factors were investigated. A number of precipitating events were reported by the students such as the break-up of a romantic relationship (15%), problem with a friend or roommate (11%), difficulties with schoolwork

(11%); isolated living situation (6%), rejection by a fraternity or sorority (3%) and medical problems (2%). With regard to maintaining factors, analysis revealed that one of the most significant factors seemed to be cognitive attributions of Loneliness. In fact, one group who overcame their loneliness by the end of the year, blamed a wide range of both personal and situational factors for their loneliness, whereas a second group, who remained lonely throughout the year, blamed their loneliness on their own enduring personality traits. This finding seems similar to what Seligman et al (1979) reported regarding depressed college students: depressed college students compared to non-depressed students, attributed bad outcomes to internal, stable and global causes, attributing at the same time good outcomes to external, unstable causes. Although Cutrona gives evidence that what differentiated the chronically lonely from the transiently lonely students were the attributional style in respect to loneliness, it can also be hypothesized that major personality factors may underlie this relationship, such as Neuroticism and Extraversion; Negative and Positive Affectivity (Watson and Clark, 1984). A number of studies on loneliness and on Negative Affectivity reviewed in the second chapter seem to suggest such a hypothesis (e.g. Hojat, 1983).

Furthermore, Cutrona et al (1982), tried to investigate the impact of different kinds of relationships on loneliness during College life. Infrequent contact with old friends was a better predictor of loneliness than was contact with family and parents. Although Cutrona does not argue for this, it is likely that infrequent contact with friends was a simple indicator of the lack of satisfying friendships and relationships for the lonely individual even prior to arrival at the university, which probably needs more investigation.

A very interesting point is the finding that students who remained lonely throughout the academic year most often said that 'finding a boyfriend/ girlfriend' was the only way they would ever get over their loneliness. In addition, students who remained lonely were dissatisfied with all kinds of relationships, but seemed to believe that their loneliness could be alleviated only through a romantic alliance. Cutrona (1982) argues that one possibility is

that these students actually do require an intense dating relationship to meet their particular social needs; another possibility is that they are overlooking the potential for overcoming loneliness through building friendships. Although this is possible, it can also be argued that this belief was an indicator of the existence of maladaptive cognitions such as the belief that only a romantic partner can make one happy and that this is the only solution to one's loneliness; maladaptive and dysfunctional cognitions that chronically lonely individuals may hold.

(e) Another very interesting finding was the fact that subjective satisfaction with relationships (with friendships, dating life and family relationships) were better predictors of loneliness than any of the quantitative measures of social involvement. Cutrona argues that if an individual perceives his or her social relationships as deficient in comparison to those of peers, he/she is likely to feel dissatisfied, and thus lonely. In other words, it appears that the cognitive process of comparing one's own life to that of others plays a significant role in social satisfaction. However reasonable this may be, it is also likely that the perception of adequate social support and satisfaction with relationships are related to a number of personality differences; they may be related to broad personality predispositions as well to maladaptive cognitions/ dysfunctional attitudes, which may affect both the way in which the individual perceives his/her relationships and the way he/she feels.

(f) In this paper (Cutrona, 1982) there is a reference to the possible role of enduring personality traits to loneliness from previous research on the validation of the UCLA Loneliness scale (Russell, Peplau and Cutrona, 1978). That study (Russell et al. 1978) included measures of affiliative tendency and sensitivity to rejection (Mehrabian, 1970), introversion-extraversion (Eysenck and Eysenck, 1975), social self-esteem (Helmreich and Stapp, 1974) and assertiveness (Rathus, 1973). Lonely students had a significantly lower self-esteem ($r = -.49$), they were more introvert ($r = .46$), had more affiliative tendencies ($r = -.45$), were less assertive ($r = -.34$), and were more sensitive to rejection ($r = .28$). As Cutrona

argues, the picture of the lonely student that emerges is the picture of an individual who lacks social self-confidence, is unassertive, and is sensitive to rejection. However, no personality variables were measured for the Cutrona (1982) study to investigate prediction of psychosocial adjustment from personality variables, as well as if relationships between personality and loneliness remain relatively stable over time. Moreover, there is no reference to Neuroticism/Negative Affectivity and perceived Social Inhibition, which according to other research may be very significant personality predictors of loneliness.

(g) With respect to the students' living arrangements, when loneliness scores of students who lived in group settings (dormitories, fraternities, co-ops), were compared with those of students who did not, loneliness scores were not significantly related to residence. Furthermore, there were no differences between those who overcame loneliness and those who did not in number of social relationships at the beginning of the year. Two weeks after school begun students in both categories said they knew an average of three to four people on the campus well and five to seven more casually. Students who later overcame their loneliness differed from those who did not in having higher expectations for future relationships, despite their initial loneliness (Cutrona and Peplau, 1979). In general, students' attitudes were much better predictors of later recovery from loneliness than was their reported social behaviour.

Despite a number of limitations, as Shaver et al (1986) said Cutrona's study was considered to be 'path-breaking' in many ways. First of all, it called attention to the value of studying social networks and socially generated emotions longitudinally. In addition, it emphasized the importance of developing new relationships during a transition. Finally, it was one of the first well-organized attempts to identify individual differences that moderate the relationship between social disruption and subsequent adaptation.

3.5 Shaver, Furman and Buhrmester, (1986): Relationships, Social Skills and Loneliness among College students

Four years after this study, Shaver, Furman and Buhrmester (1986) attempted to go one step further and to give an answer to a number of questions raised by Cutrona's study. The reason that this study will be discussed in detail at this point is because it is one of the very few longitudinal studies on students adjustment to University life, and one of the very few studies (Shaver et al, 1986; Brewin et al, 1989; Fisher et al, 1985; 1989; 1990) that attempts to identify vulnerable students, even prior to their arrival at the University.

Shaver et al. (1986) introduce their study with reference to a common finding in life-transitions studies: the fact that despite the generally disruptive nature of the life change in question, some individuals fare much better than others. 'While some are taxed to the point of illness or despair, others cope vigorously and quickly rebuild supportive social networks and satisfying life structures. In order to understand socially significant life transitions and find ways to deal with them effectively, we need a more detailed picture of both the general network changes involved and the personality characteristics associated with successful and unsuccessful adjustment' (Shaver et al, 1986, pp. 194). Costa and McCrae (1985) have given a similar argument based on the results of their study on aging.

The answers that Shaver et al tried to answer were the following: 'What happened to the UCLA freshmen's pre-college social networks? How much contacts did the students keep with their friends and families? Were these contact useful in alleviating loneliness and general distress? How were the students' new social networks constructed? Finally, who were the people that remained lonely all year, and is it possible for these students to be identified even before they came to College?'

Their longitudinal study had four stages: one month prior to the students arrival to the College, and once again in each of the three academic quarters-autumn, winter and spring.

Their final sample consisted of 166 first year students. Shaver et al give a very good account of the qualitative changes in students' old and newly established relationships with family, friends and romantic partners. In respect to the individual factors that differentiate lonely students from the transiently lonely students, they focused on the concept of social skills as well as on the differentiation between state and trait loneliness. They hypothesized that people with poor social skills would be prone to chronic (i.e. trait) loneliness and would also tend to make internal attributions for social dissatisfaction and loneliness. Their findings supported their hypotheses: The subjects who perceived themselves as socially skilled tended not to be trait lonely and not to make self-deprecating attributions. Bearing in mind that such tendencies of criticizing oneself in regard to a great variety of situations could be regarded as an aspect of Negative Affectivity, the above results suggest that research toward this direction could be very fruitful. Again, personality factors were not included at all in the study of psychosocial adjustment, despite the many suggestions from recent research that personality may play a very significant role not only to the development and maintenance of relationships, but also to the subjective perception of such relationships as satisfactory and fulfilling.

3.6 Jones and Moore, (1989): Stability of Loneliness and Social Support during the Transition to College

One year later, Jones and Moore (1987) went a step further, having a longitudinal design and having again students as subjects, but focusing more on the investigation of the relationship between Social Support and Loneliness rather than on the adjustment of students. They referred to the fact, that despite social support's obvious relevance to the phenomenon of loneliness, few studies had been reported which tried to compare loneliness and measures of social support (Levin and Stokes, 1988; Stokes, 1985; Sarason, Sarason and Shearin, 1986). In their study which sought to extend previous findings regarding this association, they proposed that the extent to which a student overcomes the initial loneliness associated with beginning college is due to his or her success in maintaining older social ties and constructing new relationships. In other words, they tried to determine whether changes in loneliness over

the time period involved were related to changes in the quality and quantity of social support available to College students.

A total of 142 beginning students were assessed during their first week of classes and again eight weeks later. Analyses of results indicated that several aspects of social support (e.g. satisfaction, network size, density and reciprocity) were modestly to strongly related to loneliness both simultaneously and over time. However, cross-lagged panel correlations indicated little justification for drawing causal conclusions from their data. As they say, the dominant finding in this study was the tendency for both loneliness and social support variables to remain stable over time. In other words, the students who at the beginning of the semester were lonely and most lacking in the quantity and quality of social support available to them were generally the students who were lonely and lacking in support two months later. However, they do not exclude the possibility that a follow-up assessment after a greater period of time might have resulted in greater variation both in social support and loneliness.

Their study has a number of very important implications that are addressed in the discussion section. More specifically: (a) Although loneliness and social support are substantially related, the magnitudes of the statistical relationships in the study indicated that they are not identical constructs which suggests the utility of conceptualizing and studying them separately; (b) there is very little evidence to suggest that the relative lack of social support causes loneliness exclusively or even primarily. Instead, they suggest that it may be that loneliness and social support are two related but independent phenomena, both of which may derive from common origins (Weeks et al, 1980).

Bearing in mind the finding-which also seems to be supported by earlier research (Sarason and Sarason, 1986)-that social support and loneliness seem to have a stability over time similar to personality variables, it can be hypothesized that major individual differences underlie all these relationships between personality, social support and loneliness, and more research

toward this direction is definitely needed.

3.7 Brewin, Furnham and Howes (1989): Homesickness among University students

Finally, the last study to be discussed in this section is the recent longitudinal study that took place in the U.K. on Homesickness. Brewin, Furnham and Howes (1989) studied two samples of first year English students who were studying in University College of London and in the University of Leeds. The main aim of the study was to investigate the factors associated both with the experience of homesickness and how students respond to it. The main variables of interest included geographical distance, estimates of the frequency of homesickness, anxious attachment and reliance on others, and measures of separation and previous absences from home. In an earlier study by Fisher et al (1985) lower levels of responsibility for the decision to go to the University and a greater geographical distance from home were identified as the best predictors of homesickness.

In Brewin et al (1989) study, a questionnaire was sent to the students one month before the beginning of the academic year. A second questionnaire was administered as part of a compulsory practical class in the sixth week of their first term. Students were asked to identify themselves by name. The response rates were quite high (90% at Leeds and 91% at UCL). From the 80 students of the first sample 64 completed the follow up questionnaire. One of the most interesting methodological points of this study was the use of samples from two Universities differing in catchment area to check on the generality of the results. The main results were the following:

- (a) demographic and geographical variables were unrelated to homesickness.
- (b) previous parental separation was unrelated to loneliness.
- (c) one of the most significant findings of the study was a significant sex difference with women being more likely than men to discuss their feelings with close family and fellow students, and being more likely to look for cheerful company and find out if others were feeling the same. These results were consistent with other findings about self-disclosure (Davidson and Duberman, 1982; Vaux, 1986).

3.8 Conclusions

One of the main conclusions is that although there are a number of well-organized studies who have attempted to investigate correlates of psychosocial adjustment to University among students, the role of personality has not been given the attention it possibly deserves. However, research to date (reviewed in chapter II) seems to suggest that it is highly likely that broad personality predispositions and their interaction with the environment underlie the perception of social support, the experience of loneliness and one step further the successful overall psychosocial adjustment.

The second general conclusion is that there appears to be a disagreement between results in respect to the stability of loneliness over time. Cutrona (1982) found a gradual and continuous decrease of loneliness (7 weeks after beginning, and 7 months later), whereas Jones and Moore (1987) found that loneliness tended to remain stable over a period of two months. Both studies used the same measure, and their samples were representative of the same population. Jones and Moore (1989) also investigated the stability of social support over time and their results agreed with the results found by Sarason and Sarason (1986), supporting the idea that perceived social support is stable over short periods of time (i.e. up to three years). Jones and Moore suggested that 'it is possible that loneliness and social support are two related but independent phenomena, both of which may derive from the same origins' (pp. 154).

Having as a basis the reviewed literature on students' adjustment and on social support, happiness, loneliness and the two broad personality dimensions of negative and positive affectivity, the present series of studies were conducted as an attempt to integrate significant findings from these areas of research and to apply them to the psychosocial and overall adjustment of home and non-home students to University life.

The studies presented here include five cross-sectional studies and one longitudinal study. The main aim of the present studies is to identify correlates of psychosocial and academic

adjustment to University life, for home and non-home students.

The studies were mainly conducted in the form of survey and by means of questionnaires. A number of personal interviews also took place. All the measures used were standardized, valid and reliable, and widely used in recent research on personality and well-being. Overall, the points in time during which questionnaires were distributed were in line with the studies discussed earlier: approximately one month before the students arrival at University, two weeks after their arrival, 8 to 10 weeks after arrival (usually two weeks before the end of the first semester/term), 2 weeks after the beginning of the second semester, and finally 2 weeks before the end of the academic year.

**CHAPTER 4: Overview of Research Implications for
the Present studies**

4.1 Introduction

In the previous three chapters, literature related to: (a) the adjustment of home and non-home students to University life and, (b) to four basic concepts of psychology-namely loneliness, happiness, social support and personality-has been reviewed. If we were to choose two basic points-conclusions from all the studies reviewed, these could be the following:

(a) Although a high number of variables have been investigated over the years in relation to students' adjustment to university, there are many questions which have remained unanswered. For instance, the psychosocial adjustment of home students has not been studied adequately; it has been assumed that non-home students experience more adjustment problems without however having been adequately compared with home students; sex differences have not been investigated in depth and so forth.

(b) The paths of recent research on loneliness, happiness, social support and personality, despite having different starting points, appear to cross each other reaching common destination points or conclusions. Moreover, although in many cases random students samples have been used in order to check several hypotheses, very rarely have such models been applied to the adjustment of students to University life.

4.2 Important questions remained unanswered

On the basis of theoretical and empirical work reviewed earlier, the present series of studies will investigate the following issues:

(1) what problems do home and non-home students experience during their transition to University during the 1990's? Do non-home students experience more problems than home students or/and problems of a different kind? To what extent do all these problems affect adjustment to University life?

(2) What are the factors that affect students' optimism and expectations about their future adjustment prior to coming to University? What are the motives of home and non-home

students for deciding to attend University? Are there any differences related to personality and well-being between home and non-home students prior to their arrival? Are there any differences between the two groups in terms of how optimistic they are before leaving home?

(3) Does prior experience of studying/living/working away from home influence the students future adjustment to University life? Do students have adequate information about several aspects of life while at University before their arrival, and does lack of such information affect students' adjustment to University life? Finally, is decisional control over the move to the University a significant factor of successful future adjustment?

(4) Does homesickness affect the students' adjustment to University life? Is homesickness more widespread among home or non-home students? Finally, what are the correlates of homesickness for home and non-home students?

(5) What is the role of personality in the development of satisfying social relationships during transition to university? What is the role of personality in the perception of Social Support, among students? What is the role of personality in the successful adjustment to university life? Furthermore, what is the role of Social support in the successful adjustment?

(6) If we hypothesize that students over the first year of transition to University do develop a number of relationships and eventually adjust to University, who are those students who at the end of the academic year have remained lonely and not satisfactorily adjusted?

(7) What is the relationship between psychosocial adjustment and academic adjustment? What is the relationship between personality, social support and academic performance?

(8) Does personality, social support, general well-being and adjustment to University life change over time, during this particular period? And if yes, then toward which direction?

(9) Finally, are there any differences between male and female students in terms of expectations, motivation, social support and adjustment to University life?

4.3 Why are these questions important?

As becomes obvious from the first chapter of the literature review, many researchers during the last 30 years or so have tried to identify factors that affect the successful (and unsuccessful) adjustment of students -home and especially non-home students-to University. Adjustment has been defined in many different terms-quite frequently in terms of academic performance- and several findings, sometimes inconclusive and/or even contradictory have been reported and discussed. The motivation behind all these studies were not always of course the same: sometimes the main motive was to identify students with high academic performance; sometimes to understand and reduce the drop-out rates; sometimes to investigate sources of satisfaction, difficulties encountered and changes of attitudes; and other times to find solutions to problems, and to make a number of suggestions for improving the academic sojourn.

In the present studies, and on the basis of the literature reviewed in chapter II the focus is on the adjustment process of home and non-home students in relation to personality and background variables as well as in relation to perceived social support. The implications of the findings of studies of this kind might prove very useful for the practice of students' Counselling.

Change and transition are very common in people's lives. They are considered quite often to be particularly stressful for the individual who has to undergo a number of major and minor changes. As many researchers recently have argued (e.g. Shaver et al, 1986), a common finding in life-transition studies is that, despite the generally disruptive nature of the life change, some people fare much better than others. In fact, Shaver et al (1986) argue that 'while some are taxed to the point of illness or despair, others cope vigorously and quickly rebuild supportive social networks and satisfying life structures'. The same has been argued

by Costa and McCrae (1985). The important point here is to understand the personality and situational characteristics associated with successful and unsuccessful adjustment, following a life transition.

The life transition of main concern here is: (a) the transition from a familiar environment to another unfamiliar environment with a slightly to significantly different culture, and (b) the transition from school to University, when this includes relocation from home to the new environment of the university. For many students this is the first major transition in their lives. The student has to re-adjust to a number of significant changes, both social and academic. He/she has to accept and negotiate changes in his/her present relationships and to build new ones. Finally, he/she has to undergo the changes involved in this post-adolescent stage of development and personal growth. The main question of interest here is 'What characteristics are associated with successful and what poor adjustment after a major transition? Can such characteristics be identified?'.

For many students this is the first major transition in their lives. However, it is definitely not the last. Given: (a) the flexibility and the great potential of change at this developmental stage; (b) the possibility of the university identifying people who have difficulties coping with such changes/crises, and finally, (c) the relatively easy access to professional help while being at the university, the great potential of offering significant help at this early stage becomes obvious.

In the next Chapter a number of methodological issues will be discussed, the psychometric characteristics of the measures will be described, and the general findings of the pilot study will be presented. In the second part, the field studies which were organized in order to answer the above questions raised after reviewing the relevant literature, will be presented and discussed.

CHAPTER 5: Methodological Issues, Psychometric

Characteristics and a Pilot study

An overview of the Psychometric characteristics of Personality, Social Support and General Well-Being Measures and a Pilot Study

5.1 Introduction

The purpose of the present chapter is three-fold: (a) first, to discuss a number of methodological issues concerning the cross-sectional and longitudinal design of studies, as well as the use of self-report measures, (b) to discuss the psychometric characteristics of the standardized scales used in the present series of studies, which are described in detail in chapters 6 to 11; and (b) third, to discuss the pilot study for the main studies conducted thereafter.

5.2 Methodological Issues in Research

Research designs form the basis for the measurement of variables and measurements in turn are the basis for the results and inferences that are drawn from research. One of the major obstacles in research are weak designs and inadequate measures (Chay, 1990). Given that the present studies reported in Chapter 6 to 11 are both cross-sectional and longitudinal, the discussion will focus on methodological problems associated with correlational research designs. In addition, given that most of the data were collected by using self-report questionnaires, discussion will refer as well to the methodological problems related to surveys and the use of self-report questionnaires.

5.2.1 Cross-Sectional and Longitudinal Designs

One of the first findings when one is going through the pages of a recognized Psychology Journal is that the majority of the studies reported are of cross-sectional design with very few longitudinal studies. Cross-sectional studies, the simplest of the correlational research designs, investigates the relationship between a number of independent variables and a number of dependent variables. In a cross-sectional study all the measurements are taken at one point in time. By using such a design, very useful information can be collected and the possible relationship between variables can be studied, without having the possibility of reaching

conclusions concerning causality. There is always however the possibility of using a number of statistical techniques such as path analysis, which can provide a limited overview of causal relationships.

Longitudinal research designs involve taking two or more measurements of the same group of subjects at different points in time. The value of such designs lies on the possibility of establishing a temporal ordering of hypothesized cause and effect variables (Chay, 1990, p. 29). However, as Chay discusses the value of such studies in determining causal networks depends on a number of other considerations, including the following: (a) accurate timing of taking measurements, and (b) use of valid and reliable measures.

Using valid and reliable measures is one of the most important aspects of a well-organized and fruitful research study. One problem related to the choice of measures is the conflict between choosing objective versus subjective measures. Chay (1990) argues that 'objective' has been used to refer to material objects and processes only, leading to the conclusion that 'subjective' means 'unreal' or 'illusory'. Finally, objective has been defined as being independent of the person's perception, leading to the conclusion that 'subjective' may be interpreted as being dependent on the person's perception. For example, an 'objective' measure of support could be found only by focusing on a number of variables related to a person's social network independently of the individual's personal perception of the availability of social support, whereas a subjective measure would investigate exactly this perception which is probably related to a number of cognitive and emotional processes. Given the theoretical perspective of the present research, which focuses a great deal on these processes, the measures chosen to be used are subjective self-report measures.

However, the use of self-report measures is not without problems. One of the most common problems is the problem of response bias. Response bias refers to systematic errors arising as a result of distortions in procedure or characteristics of the instrument or the respondent

(Chay, 1990). Response biases include: (a) Social desirability: 'the tendency to deny socially undesirable traits and to claim socially desirable ones, and the tendency to say things which place the speaker in a favorable light' (Nederhof, 1985, p. 269); (b) acquiescence-the tendency to agree or disagree irrespective of the content of the question, and finally, (c) some researchers refer to the concept of Negative Affectivity as one of the response biases problems. However, the latter has been discussed in detail in Chapter II.

Measures of intimate personal matters (such as satisfaction with relationships), measures of personality and mental health, as well as measures of general well-being and adjustment are likely to correlate with measures of social desirability. However, this problem may be reduced considerably by including a measure of social desirability and identifying subjects who may be prone to that, and deciding whether to exclude them from the overall analysis, analysing them separately or including them in the analysis. In most of the present studies a Lie sensitive scale was included (Eysenck and Eysenck, 1985). In addition, recent research seems to suggest that measurement problems associated with the use of self-report methods, for instance response bias, are not as serious as suggested previously (Spector, 1987). Moreover, the inclusion of questionnaires that counterbalance positive and negative phrased items may reduce response bias, arising from acquiescence.

5.2.2 Methodological and Statistical 'Precautions' taken in the present studies

In order to avoid many of the problems discussed earlier, adequate, valid and reliable measures must be used in the assessment of Personality, Social Support and Adjustment. The present studies are a combination of cross-sectional and longitudinal designs. For all the studies, standardized, valid, reliable and widely used measures were used, which will be described and discussed in detail in the following section. In addition, one of the criteria used in order to choose a scale was the simplicity of the language, so that the questions would be easily understood by non-home students. Reliability for each scale was examined with the Crombach alpha coefficient in all the studies. In addition, for some measures (e.g. the Ways

of Coping scale) a principal components analysis was performed in order to study the measures used in this study, in relation to possible underlying structures. The SPSS/PC+ factor Extraction was used and the default orthogonal rotation (varimax).

Questionnaires with more than 10% missing data were discarded, following Hojat 's advice (1982). In addition, separate analyses were run, including first all subjects and subsequently excluding the top 5 percent Lie-scorers, following Eysenck and Eyseck (1985). Comparison from the two sets of results were taken into consideration.

For the longitudinal studies, in order to determine whether the retest and original samples represented the same population, the means and standard deviations of the original scores for the individuals in each retest sample were compared with the means and standard deviation scores of remaining individuals from the original sample, following Sarason, Sarason and Shearin (1986).

Students who were experiencing a very highly negative life event at the time of administering the questionnaire -death or serious illness of a family member or friend- were excluded from the analysis.

Finally, much effort was put into having samples representative of the students population. Data from the fourth main cross-sectional study conducted in the month of May 1993 was discarded given the inadequate response rate (24.9%) which would question the validity of the results. In all studies, participation was voluntary, anonymous, and students did not receive any course credit or any payment for their participation. Only during that last stage of the major longitudinal study (in May 1994) students completed the questionnaire as part of their clinical practicals. However, responses at this stage were again anonymous. The code used for matching the files for the longitudinal analysis was the students' date of birth. The present series of studies had the approval of the University of Stirling Ethics Committee.

Regarding the statistical analysis, a number of steps were followed. First, when less than 10 % of the data was missing, means were calculated from available data and used to replace missing values prior to analysis. This is the most conservative method in replacing missing values, because the mean for the distribution as a whole does not change. Next, univariate and multivariate outliers were identified, examined individually and when necessary excluded from the overall analysis. Later, data were examined for normality, linearity and homoscedasticity, and when necessary statistical transformations (logarithmic, square root, reflection and square root, reflection and logarithm) were applied to improve the analysis and in some cases to reduce the influence of outliers. Given the ongoing debate in this area about the effect of transformations on the data, transformations were used sparingly, and only when they improved significantly the distributions.

Then pairwise plots were checked for multicollinearity and singularity, and whenever there were bivariate correlations of .70 or more, only one of the two variables were included in the same multivariate analysis. In the cases where multiple regression analysis was applied, in order to have acceptable power, no fewer than 100 cases were included- the bare minimum requirement is to have at least 5 times more cases than independent variables (Tabachnic and Fidell, p.128-129). Consequently, although some researchers have suggested the use of multiple regression for males and females separately-and as it would be logical, for home and non-home students-no separate regression analyses were used in a number of cases given the very small number of subjects which would affect the power. The above procedure was based on instructions by Tabachnic and Fidell (1989). For the statistical analysis of all the studies, the SPSS/PC+ statistical package was used.

Stepwise regression analysis was applied initially to check the importance of the independent variables to the prediction of the dependent variable, based solely on statistical criteria. At this point an explanation is possibly needed: in stepwise regression analysis, the equation starts out empty and independent variables are added one at a time if they meet the statistical criteria,

but they may also be deleted at any step where they no longer contribute significantly to the regression equation. However, given that hierarchical multiple regression analysis is the basic model testing procedure when compared with stepwise regression analysis which is rather model-building, hierarchical analysis was the basic 'tool' used for the prediction of the dependent variables. In hierarchical regression analysis the independent variables are entering into the regression equation at pre-determined steps. For the present studies, the statistical procedure used was based on the procedures followed by Parkes (1985;1991) and by Yue Wah (1990), in their studies on personality, social support and perceived stress in occupational settings.

5.3 Psychometric characteristics of Personality, Social Support and Well-Being measures

The main personality variables measured were the following: Neuroticism, Extraversion and Psychoticism; Locus of Control; Negative and Positive Affectivity; Social Inhibition and Perceived Social Competence; Interpersonal Mistrust and Achievement Motivation. Self-Esteem was also measured. In addition a measure of perceived global Social Support was taken. A Ways of Coping with problems list was included in order to measure approaches to coping with exams pressure. The outcome measures were the following: a measure of General Somatic and Mental Well-Being (somatic, cognitive, behavioral and depression); perceived Loneliness; and overall Adjustment to University life. Finally, a very simple measure of overall Happiness and satisfaction with present life was taken. Reliability coefficients were computed for each scale at every stage, which are given in the results sections. All the standardized questionnaires used in the field studies are included in the appendices.

(a) Measures of Personality

Extraversion, Neuroticism, Psychoticism and Lie scale

(Eysenck and Eysenck, 1981)- Appendix A

The Eysenck and Eysenck EPQ-R (1981) has been used in this study (the 48-item, short

version scale) because it is valid, standardised and is one of the most widely used instruments measuring Introversion-Extraversion, Neuroticism and Psychoticism. Eysenck and Eysenck have pictured the sub-traits of Extraversion and Neuroticism as follows: for the characteristic extravert 'sociable, lively, active, assertive, sensation seeking, carefree, dominant, surgent and venturesome; and for the characteristic high in Neuroticism individual 'anxious, depressed, guilt feelings, low self-esteem, tense, irrational, shy, moody and emotional'.

The four scales have very good internal reliabilities, as well as good test- retest reliabilities. The questionnaire also includes a Lie scale, which attempts to measure a tendency on the part of some subjects to 'fake good'. In addition to measuring dissimulation, the L scale also is assumed to measure some stable personality factor which possibly denotes some degree of social naivety or conformity. Taking the author's advice, as it is mentioned in the manual (Eysenck & Eysenck, 1986, pp. 14), the data was first of all analyzed without eliminating any subjects on the basis of high L- scores, correlating L-scores with all the other variables. Next, the highest scoring 5-percent of L-scorers was eliminated and the process of working out correlations was repeated.

The EPQ-R is a self-report questionnaire. All items are in statement format. Individuals have to choose between two options (yes or no), choosing the one that is more characteristic of themselves.

Self-esteem

(Hudson , 1982) -Appendix B

The Index of Self-esteem (ISE, Hudson, 1982) is a 25 item, self-report questionnaire designed to assess the degree of magnitude of a problem that a person has in the area of self-esteem. All items are in statement format. Respondents are required to rate each item-statement from 'rarely or none of the time' to 'most or all of the time', on a 1 to 5 scale. The suggested scoring system entails scoring all items in the direction of low self-esteem, which necessitates

score reversal in some items, and finally subtracting 25 from the total score, to give a score range from 0 to 100.

However, for the present studies, which do not require a cut-off point but only a comparable mean, subtraction of 25 was not calculated. In addition, although the suggested scoring system entails scoring all items in the direction of low self-esteem, for the purposes of this study, the scoring system was reversed in the direction of high self-esteem, with higher scores indicating a higher degree of self-esteem.

The ISE is internally consistent ($\alpha = .93$), has good test-retest reliability ($r = .92$), and has good known groups validity ($r = .52$). Another advantage of the scale is that it has a strong developmental and statistical background which indicates that it is a good measure of self-esteem.

At this point, it is necessary to mention an addition to the original questionnaire after the pilot study; in order to improve understanding of the item-statement 'I feel like a wall-flower when I go out', it was modified to increase understanding, and read 'I feel as if I am not a participant, when I go out'.

Social Inhibition and Perceived Social competence

(L.Horowitz and R. de Sales French, 1979; Adams, Opensaw, Bennion, Mills and Noble, 1988)- Appendix C

This is a 14-item scale which was used here to measure Social Inhibition and Perceived Social Competence. The first 12 items are in a 'Yes-No' statement format (eg. 'I find it hard to make friends in a simple, natural way'), and the last two consist of two statements each. The items were first designed by Horowitz and de Sales French (1979) and they were operationalized into a measure by Adams et al (1988), and used in their study on loneliness in late adolescence. They reported a split -half reliability of $r = .84$, and a coefficient alpha

of .81. The reason for choosing this scale in this study is the face validity of the scale, the simplicity of the language and the short length of the measure.

Achievement motivation

(Argyle and Robinson, 1962)-Appendix D

Achievement motivation is a construct which refers to the desire to do well in order to attain an inner feeling of personal accomplishment (McClelland, 1961). Achievement motivation has frequently been assessed using scales which appear to be primarily indices of 'motive to achieve'. However, results reported by Argyle and Robinson (1962) suggested there may be different components within the personality construct which may be important in understanding how individual differences operate in regard to drive motivation. The Argyle and Robinson nAch scale was used to assess two aspects of achievement orientation :(a) 'hopes for success' (nAch +ve) and a 'fear of failure'(nAch -ve). Each subscale consisted of 5 positive and negative worded statements about motives to perform, achieve and excel in everyday type situations. These statements were scored on a scale from one to five. High scorers reflect high 'hopes for success' and a 'fear of failure' attributes. (Yue Wah, 1990).

Locus of Control

(Levenson, 1981)-Appendix E

In this study, the Levenson (1981) scale was used. It consists of 24 items, with a 7-point Likert scale, measuring three dimensions of expectancy: Internal (I scale), Powerful others (P scale), and Chance (C scale).The I, P, and C scales were originally designed as a reconceptualization of Rotter's I-E scale, and they were composed of both items adapted from Rotter's scale and a set of statements written specifically to tap beliefs about the operation of the three dimensions of control: beliefs in Personal Control (I scale), Powerful others (P scale), and Chance or fate (C scale).

Internal consistency estimates as reported by Levenson, are only moderately high, but since

the items sample from a variety of situations, this is to be expected. For a student sample ($n=152$), Kuder-Richardson reliabilities yielded .64 for the I scale, .77 for the P scale and .78 for the C scale (Levenson, 1974). Split-half reliabilities (Spearman-Brown) are .62, .66 and .64 for the I, P and C scales respectively. The validity of the I, P and C scales has been demonstrated chiefly through convergent and discriminant methods (Campbell and Fiske, 1959), that are designed to show significant low-order correlations with other measures of the general construct as well as a pattern of theoretically expected positive and negative relations with other variables (Levenson, 1981).

Interpersonal Trust

(Rotter, 1967; 1980)- Appendix F

Interpersonal Trust was measured with a substantially shortened version of Rotter's (1980) Interpersonal Trust Scale. Subjects responded on a 5-point Likert scale about the extent to which they agreed or disagreed with a number of statements. The original scale (1967) include 25 items measuring trust and 15 filler items. It was reported to have a good test-retest reliability, good construct validity and a split -half reliability of $r=.76$, $p<.001$. The shortened form was used by Folkman, Lazarus, Gruen and DeLongis, (1986). They found Interpersonal Trust to correlate negatively with Psychological symptoms ($-.35$, $p<.01$), but not with health status. The alpha coefficient for their study was .70.

Negative and Positive Affectivity

Watson and Clark (1988)-Appendix G

The PANAS scales were constructed to measure Positive and Negative Affectivity. Each scale consisted of 10 items. They are in a Likert scale with scores ranging from 1 to 5 (from 'never' to 'always'). The internal consistency given for PA was .86 - .90 and .84 -.87 for the NA scale. The reported correlation between NA and PA was $r=-.12$ to $-.23$. Test-retest reliability showed that it is quite stable for a two years period. They have excellent convergent and discriminant correlations with lengthier measures of the underlying mood

factors. When used with short-term instructions (e.g. right now or today) they are sensitive to fluctuations in mood, whereas they exhibit trait like stability when longer-term instructions are used (e.g. past time or general).

Dysfunctional Attitudes

(Weissman, 1980)-Appendix H

The DAS (Dysfunctional Attitudes scale) is a 40-item instrument designed to identify cognitive distortions -particularly the distortions that may underlie or cause depression. Derived from Beck's cognitive theory of depression, the items describe distorted beliefs and attitudes that Beck terms maladaptive assumptions (Beck, 1974; 1979) and Ellis labels irrational beliefs (1962, 1979). The items on the DAS were constructed so as to represent seven major value systems: a) approval, b) love, c) achievement, d) perfectionism, e) entitlement, f) omnipotence, and g) autonomy. Two 40-item parallel forms of the DAS which are highly correlated and have roughly the same psychometric properties, were derived from an original pool of 100 items.

The DAS was developed in a series of studies ultimately involving some 216 male and 485 female, predominantly white undergraduate students. It has also been used in studies with clinical populations (105 depressed outpatients, 30 manic-depressive outpatients and 107 depressed patients). The DAS has excellent internal consistency with alphas on the form of the DAS reproduced here ranging from .84 to .92. It also has excellent stability with test-retest correlations over eight weeks of .80 to .84. It also has excellent concurrent validity, significantly correlating with a number of other measures of depression and depressive distortions such as the BDI.

The DAS is easily scored by using zeros for items omitted, assigning a score of 1 (on a 7-point scale) to the adaptive end of the scale, and simply summing up the scores on all items. With no items omitted, scores on the DAS range from 40 to 280 with lower scores equating

more adaptive beliefs (few cognitive distortions)(Concoran and Fischer, 1987).

State Anxiety

(Spielberger et al., 1970; 1980)-Appendix J

State -Trait Anxiety Inventory-Form Y. The STAI (Spielberger et al, 1970) consists of two scales developed to provide operational measures of state and trait anxiety. Each scale contains 20 items that either describe symptoms of anxiety or indicate the absence of anxiety. The STAI-A State scale requires respondents to indicate the intensity of their anxiety at a particular moment, whereas the STAI-Trait scale assesses the general frequency of specific anxiety symptoms. Both the stability of the STAI A-trait scale and the sensitivity of the STAI-A-State scale to threats to self-esteem have been examined, and the results have consistently supported the use of these scales in anxiety research (Auerbach, 1973). Levitt's (1967) review concluded that the STAI was the most carefully developed psychometric instrument available for measuring Anxiety, and in fact the STAI has been used more often in psychological research than any other measure of Anxiety (Gotlib, 1984). Spielberger et al (1980) reported a psychometrically improved version of the STAI, the STAI form Y, and this version of this Ascale was administered in one of the present studies.

(b) Culture related variable

Cultural Distance

(Use of a modified version of the Cultural Distance Index, Babiker, Cox and Miller, 1980)-
Appendix K

Babiker, Cox and Miller tried to develop an instrument that measured the distance between two cultures based on their social and physical attributes. This instrument was one of the first attempts to measure cultural distance and it was used to investigate the possible associations between cultural distance and medical consultations, symptoms and examination performance in a sample of overseas students at Edinburgh University.

The writers point out that it was not an attempt to measure or rate culture, nor was it an exercise in defining it. As they say 'we are fully aware of the problems of definition and the methodological difficulties which make quantifying certain cultural attributes such as value systems an impossible task' (p.110). As they say their aim was to design an instrument which would be capable of comparing any two cultures on a set of parameters and which would serve as an index of similarity or difference between them.

Their final selection included ten parameters: climate, clothes, language, educational level, food, religion, material comfort, leisure, family structure and family life, courtship and marriage. The authors give a rather straight forward way of scoring the index, and they mention that despite a number of limitations, the instrument has functioned quite satisfactorily as a rough index of cultural distance (or proximity). They also add that it appears to have construct validity, at least as far as the rank ordering of the various nationalities is concerned, although not without some reservations. Finally, they say that the instrument can be improved by the addition of extra items or the refinement of the measurement. The instrument used in this study was based on this Cultural Distance Index, including a number of easy to answer questions, with all the ten parameters used in this index.

(c) Coping

(Ways of Coping Checklist, Lazarus and Folkman, 1985)- Appendix L

Coping was assessed with the 66-item revised Ways of Coping checklist (Folkman and Lazarus, 1985; 1987). The checklist contains a broad range of coping and behavioural strategies that people use to manage internal and external demands in a stressful encounter; Two broad categories of coping can be identified: (a) problem -focused and, (b) emotion focused. In addition, a factor analysis by Folkman and Lazarus produced eight scales: (a) confrontive coping (e.g. 'stood my ground and fought for what I wanted'; $\alpha = .70$); (b) distancing (e.g. 'went on as if nothing had happened' ; $\alpha = .61$); (c) self-control (e.g. 'I tried to keep my feelings to myself'; $\alpha = .70$); (d) seeking social support (e.g. 'accepted sympathy

and understanding from someone' $\alpha = .76$); (e) accepting responsibility (e.g. 'criticized or lectured myself'; $\alpha = .66$); (f) escape-avoidance ('wished that the situation would go away or somehow be over with'; $\alpha = .72$); (g) planful problem-solving (e.g. 'I knew what had to be done, so I doubled my efforts to make things work'; $\alpha = .68$); (h) positive reappraisal (e.g. 'I changed or grew as a person in a good way'; $\alpha = .79$).

One of the criticisms of the Ways of Coping Questionnaire by Endler and Parker (1990) is that items used to create particular subscales from the WCQ tend to change from one factor analytic study to another (Aldwin et al, 1980; Folkman and Lazarus, 1985; Folkman et al, 1986; Vitaliano et al, 1985, 1986). In a review of the WCQ, Tenner and Herzberger (1985) suggested that researchers using the scale conduct a factor analysis with their own sample and use these results to determine the appropriate subscales for the coping items. However, for the purposes of this study, it was decided to use factor analysis on the scale for exploratory reasons, but unless there were major differences, to form the subscales based on the work by Folkman, Lazarus, Gruen, and DeLongis (1986) discussed earlier.

Subjects are asked to reconstruct recent stressful encounters and describe what they thought, felt and did. The Ways of Coping checklist can either be self-administered, or administered by an interviewer. Students were asked to describe in the present study how they felt and how they coped with examination stress during previous weeks. For each coping item students indicated on a 4-point scale (0-3) the extent to which they had used a particular strategy for the problem described.

(d) Global Social Support

(Cohen et al., 1985)- Appendix M

Global Social Support was assessed using the Interpersonal Support Evaluation List (ISEL, Cohen et colleagues, 1985). The ISEL consists of 40 items in the statement format,

concerning the perceived availability of social, potential support resources.

The items are counterbalanced for desirability that is, half of the items are positive about social relationships (e.g. 'I know someone who would lend me their notes if I missed a class'), and half are negative statements (e.g. 'there isn't anyone I feel comfortable talking about my career goals'). Items were developed on theoretical grounds to cover the domain of socially supportive elements of relationships which students might be expected to experience (Cohen and Hoberman, 1983).

It has 4 sub-scales of ten item statements each, and each sub-scale is constructed to measure a different element of Social Support, a different social support function a social network might provide. The four sub-scales refer to the following elements:

- a) Appraisal support, which measures the perceived availability of an emotionally close person, to talk to about one's problems and personal matters. In other words, it refers to the availability of a confidant;
- b) Belonging Support, which refers to the perceived availability of people one can do things with; the sense of belonging to a group of people;
- c) Tangible Support, which measures the perceived availability of material, informational or instrumental aid when it is needed, and finally,
- d) Esteem Support which measures a perceived favourite comparison, when comparing one's self with others .

Respondents indicate whether each statement is probably true or false for themselves, at the time of administering the questionnaire. The ISEL is scored by counting the number of responses indicating support for each of the four sub-scales. An overall index can be calculated by summing up the support scores across the four sub-scales. Reported internal reliabilities range from .88 (alpha coeff.) to .90 for the general population form of the ISEL.

It also has a good test-retest reliability (.70) over a six-week interval for the overall score and the four subscales scores (Cohen, Kamarck, Mermelstein and Hoberman, 1985). A study by Sarason, Sherin, Pierce and Sarason (1987) showed that the ISEL and the Perceived Social Support Scale (Prodicano and Heller, 1983) were all highly inter-correlated, suggesting that all they measure the same construct.

(e) Psychosocial Adjustment variables

Loneliness

(Russel, Peplau and Cutrona, 1980)-Appendix N

Although there is a number of scales available for measuring Loneliness, the UCLA - Loneliness scale is the most widely used (Russel, Peplau and Cutrona, 1980). It has a high internal consistency (alpha =.94) and a number of studies indicate good concurrent and discriminant validity. The R-UCLA loneliness scale consists of twenty items in a statement format. Subjects indicate how often they feel the way described in each of the statements, and the answers range from 'never' to 'often'. All items are counterbalanced for Social Desirability; 10 items are positive (e.g. 'there are people I feel close to'), and 10 are negative (eg. 'my social relationships are superficial'). The overall score is calculated by adding each item's scores after reversing the positive items, so that the higher the overall score, the higher the degree of the experienced Loneliness.

General Well-being

(Goldberg and Hillier, 1979) -Appendix O

The General Health Questionnaire, 28-item (Goldberg & Hillier, 1979) was used as another outcome measure. The General Health Questionnaire is the short version of the original GHQ-60 (1972). The GHQ is a 28-item statement questionnaire and it was designed as a measure of psychiatric caseness. It consists of 4 sub-scales, with 7 items each, and each sub-scale measures a different aspect of well-being: a) somatic dysfunction; b) social dysfunction, c) anxiety and insomnia and finally, d) depression.

Subjects have to choose among four alternatives and to state which statement is more characteristic of how they feel during the last few weeks. There are two non-pathological replies and two pathological. There are three different ways of scoring the GHQ. The most common way of scoring it, when it is to be used for case identification, is the 'GHQ method' of giving a 0 mark to the two non-pathological replies and one to each pathological reply.

However, if the sub-scales scores are required there are marginal advantages in scoring these 0-1-2-3. This way of scoring produces a less skewed score distribution than the original GHQ method. The CGHQ scoring method of Goodchild and Duncan Jones (1985) can be used in order to produce an even less skewed distribution of total GHQ scores, and some studies have shown that this also increases the sensitivity of the instrument (increase from 73.5% to 84%). The essence of the scoring method is to assign a score for those replying 'same as usual' to any of the negative items. The CGHQ method of scoring was used in the present study for all the reasons mentioned above.

Several cut-off points of psychiatric caseness have been established (Goldberg and Williams, 1988), with 4/5 as the most common, and 12 as the higher. However, for the purpose of this study, where the sample is not part of a clinical population and the aim is not the identification of clinical cases we will not refer to any cut-off point but to the relative comparison of individual scores. The GHQ-28 has been shown to be valid ($r = 0.76$), and reliable ($r = 0.90$) (Robinson and Price, 1982).

Adaptation to University Life

(Crombag, H. 1968; Van Rooijen, 1986)-Appendix P

The College Adaptation Questionnaire (CAQ), constructed by Crombag (1968) to assess how well students have adjusted to University life, is a self-report instrument consisting of 18 statements. Respondents indicate on a seven point rating scale how well each statement applies. Eight statements indicate good adjustment and ten statements indicate the lack of it.

The total score for adjustment is the sum of the item scores, after having reflected the items which indicate a poor adaptation.

CAQ was used in a number of evaluation studies of educational innovation programs at the Technical University in Eindhoven (Crombag, 1968; Klip, 1970; Meuwese and van Rooijen, 1966; van Rooijen, 1965). In addition in a test validation study at the Free University (van Rooijen and Vlaader, 1984; Vlaader and van Rooijen, 1981) with a group of (educational) psychology students the adaptation scores proved reasonably internally consistent, and moderately to strongly associated with test scores for transient depressive mood and trait-depression. They did not correlate with social desirability response tendencies. No over-all sex, age or marital status differences were obtained. Finally recently the CAQ had been employed in investigations of Homesickness among University students in Scotland and England, by Fisher at the Stress Research Unit, in Dundee (pp.197-198)

5.4 Pilot Study- April 1992

Subjects-Procedure

A small-scale pilot study was conducted in April 1992. The set of questionnaires was distributed personally to 35 one-year postgraduate students and to 25 first-year Undergraduate students. 25 students were British and 35 students were non-British: 15 Europeans, 4 Americans, 6 Africans, 8 Chinese / Taiwanese and 2 Arabs. The questionnaires were collected personally the following week and all the questionnaires were returned. In addition students were interviewed for approximately 15-20 minutes, discussing problems they experienced during the last year, satisfaction with academic and social aspects of their sojourn, as well as their opinion on the questionnaire.

The main aim of the pilot study was to ensure that the questions and items included were easy to understand by home and non-home students, whose first language was not English. Participants were asked to comment on items or questions that they found difficult to

understand, confusing or 'strange'. They were also asked to modify whatever they considered appropriate and anything which they believed was missing from the questionnaire. Students were assured of the strictly confidential treatment of their responses. All the questionnaires were anonymous.

Measures

The participants were given the set of questionnaires that was intended to be given to the students during the next academic year comprising:

(a) a number of questions referring to personal details (demographic information) and general questions regarding their previous experience of travelling/living/working abroad, information they had about life while at University, reasons for deciding to come and study here, problems anticipated and experienced and so on. A number of open-ended questions were also included regarding problems they experienced and ways they utilised in order to cope with them. Finally, students were asked to give their definition of what constitutes successful 'adjustment to University life'.

(b) a number of standardized personality, social support and general well-being questionnaires. More specifically the questionnaires included were the following:

- a) EPQ-R (Eysenck and Eysenck, 1981);
- b) Self-esteem Index (Hudson, 1982);
- c) Locus of Control Scale (Levenson, 1981);
- d) Interpersonal Evaluation List (ISEL, Cohen et al., 1985);
- e) Revised UCLA Loneliness scale (Russel et al, 1980);
- f) General Health Questionnaire (GHQ, Goldberg and Hillier, 1979);
- g) College Adaptation Questionnaire (Crombag, 1968; van Rooijen, 1986);
- h) Social Inhibition and Perceived Social Competence scale (Horowitz and de Sales French, 1979; Adams et al, 1988);
- i) Dysfunctional Attitudes scale (Weissman, 1980).

Results-Discussion

After examining the results from this pilot study, and taking into consideration the students's comments about the understandability of the questions, as well as the average time required to complete each questionnaire in the set separately, a number of questions were dropped and a number of questions were modified or changed in order to increase their simplicity and clarity. A number of open-ended questions were modified to multiple choice questions, in order to make them easier to answer and to decrease the time needed for answering the questionnaire.

In respect to the problems anticipated and experienced, students were asked to rate 24 problems, according to how much they were in the past or present a source of difficulty that affected their stay here. The initial list of problems formed was based on the list of problems discussed by Klinenberg and Hull (1979). Financial problems, difficulty adjusting to the climate and depressed mood were the most salient problems (ranked by frequency). Loneliness, lack of academic guidance, lack of professional counselling, lack of meaningful contact with people, difficulties experienced by mature students with families, and practical problems related to accommodation/flatmates, which were not included in the original questionnaire, were included in the main studies, because of the high frequency of mentioning them as serious problems, at this pilot stage.

Finally, regarding the definition of successful 'adjustment to university life', the majority of the students (n=48) defined 'adjustment' in terms of: a) general satisfaction with several aspects of life at the University, b) absence of any feelings of homesickness, depressed mood and loneliness, c) development of a satisfying circle of friends and confidants, with whom one can spend time with and whom one can trust, and finally, d) absence of any psychosomatic problems related to dissatisfaction with life at the University. With the exception of one student only, no other student defined 'adjustment to university life' in terms of academic performance. Consequently, based on these results and having in mind the definition given

in a previous section based on earlier research, it was decided to keep this definition and to proceed in using the following variables as parameters of psychosocial adjustment: (a) General Well-being, (b) Loneliness and (c) overall satisfaction with life at University-overall adjustment.

PART II: EMPIRICAL STUDIES

CHAPTER 6: STUDY I

A Comparison of Home and Non-Home

Students Prior to Arrival at University: Motives,

Expectations, Individual Differences and

Psychosocial Adjustment

ABSTRACT: The main aim of the present study is twofold: (a) to investigate any differences between home and non-home students, prior to university attendance, and (b) to study the motives, informational preparedness, and optimistic expectations about academic and social aspects of adjustment to University life. One hundred and eighty six non-home students (from 25 countries), and two hundred and forty four home (British) students completed a questionnaire six weeks prior to arrival at university, which assessed: reasons for deciding to attend university, expectations about academic and social aspects of university life, information/cultural knowledge, previous experience of sojourn, personality (locus of control and self-esteem), global social support, satisfaction with current lifestyle and relationships, loneliness and general well-being. The results indicated that on the basis of pre-attendance assessment, non-home students, in comparison to home students, appear to be better equipped for the transition in terms of motivation, previous experience of sojourn and personality attributes. However, non-home students, in comparison to home students, lack overall information about several aspects of life in the new host country, and particularly regarding academic standards, which may adversely affect the non-home students' eventual adjustment. Results are discussed in relation to the literature which suggests that non-home students, in comparison to home students, experience far greater problems of academic and social adjustment during their sojourn.

Introduction

Transition and change are recurring features in people's lives. It has been argued repeatedly that everything that entails change might be considered, at least initially, as 'threatening' for the individual's achieved equilibrium, affecting his/her psychological and physical well-being (Fisher et al, 1985). For many students one of the first major transitions in life is the transition from school to university, while for others it may also involve the transition to another country for academic reasons. Such transitions have received a great deal of attention during the last thirty years and despite the amount of research that has taken place, many questions remain unanswered or have been given contradictory or inconclusive answers.

Research on the adjustment of students has been primarily confined to the study of 'non-native', 'foreign', 'overseas' or non-home students (Bochner and Furnham, 1986). One reason for this was the great influence of intercultural research and the so-called 'culture shock' concept (Oberg, 1960), which focused on the adjustment process of young voluntary workers, businessmen, immigrants, refugees and finally students. Another reason was the very high number of foreign students in Universities worldwide. The majority of studies on the adjustment process of students have taken place in Universities in the United States, Canada and Australia (e.g. Chataway and Berry, 1989; Bochner and Furnham, 1986; Ward and Searle, 1991), whereas in Britain there is a much more limited number of studies on the subject (e.g. Cox, Babiker and Miller, 1980; Lu, 1990).

A number of different factors have been investigated as regards their contribution to students' successful or poor adjustment to University life such as the cultural distance or cultural dissimilarity between students' home culture and host culture (Babiker, Cox and Miller, 1980; Bochner and Furnham 1986; Ward and Searle, 1991); previous experience of sojourn (Amir, 1969; Basu and Ames, 1970; Bochner, 1972; David, 1973; Chataway and Berry, 1989; Ward and Searle, 1990; 1991); language fluency (Sewell and Davidsen, 1961; Gullahorn and Gullahorn, 1966; DiMarco, 1974; Chataway and Berry, 1989); the amount of social

interaction, particularly with people of the host country (Klineberg and Hull, 1979; Bochner and Furnham, 1986; Ward and Searle, 1991) and so forth. Such studies have concentrated on the social, environmental and cultural aspects that may influence students' ability to adjust satisfactorily. Unfortunately there has been a relative lack of studies concerning individual differences, and in particular personality differences that might predispose to successful or unsuccessful adjustment. Initial studies focused on the authoritarian personality (Adorno, 1950; Mischel, 1965; Basu and Ames, 1970; Chang, 1973), while more recent studies tried to identify possible vulnerability factors, predictive of poor adjustment and homesickness (Davidson et al, 1950; Bean and Metzner, 1985; Chartrand, 1990; Fischer, 1989; 1991; Furnham and Mitchell, 1991; Brewin, Furnham and Howes, 1989; Lu, 1989; Riggio et al., 1993; Ward and Searle, 1991). Church (1982) and Bochner and Furnham (1986) give two excellent reviews of the relevant literature.

Despite the improvement in our knowledge concerning the adjustment process of students derived from the above studies there still exists a number of major issues that need to be addressed. First, although much research has been done on the adjustment of non-home or foreign students, on the assumption that non-home students experience many more problems than home students, in fact very few studies have actually compared home versus non-home students (e.g. Lu, 1991). Second, only a few studies, with longitudinal components have collected data from students prior to their arrival at University but such studies have been limited to home students only (e.g. Shaver et al., 1986; Brewin et al., 1989; Fisher et al. 1985, 1987, 1988). No study to date has compared home versus non-home students prior to University attendance. This is crucial given the necessity to have appropriate 'baseline' measures. This is especially so with regard to pre-University student characteristics which may be important determinants of later psychosocial adjustment or non-adjustment at University (Shaver et al., 1986). Third, no study to our knowledge has investigated expectations and motivation of home and non-home students prior to their arrival at University. One might expect such factors to differ between home and non-home students and

also such factors to be important in relation to later University adjustment. Given that various social characteristics and personality dimensions are regarded as important parameters of psychosocial adjustment it would seem appropriate that these issues are also assessed prior to university attendance when comparison is made between home and non-home students. In particular the variables that might be of relevance are perceived social support, locus of control, self-esteem and general well-being.

Finally, with regard to optimism and pessimism about future adjustment the literature on immigrant adaptation (Feather, 1982; Cochrane, 1983) suggests that such expectations are major determinants of eventual adjustment. Therefore, the present study also focuses in some detail on the specific issue of students expectations, whether optimistic or pessimistic, regarding a number of academic and social aspects of university life in relation to the other variables outlined above.

The present study is an attempt to rectify some of the above problems by comparing home and non-home students prior to University attendance on the following variables: (a) expectations of university life, (b) motives for attending university, (c) cultural knowledge, (d) previous experience of sojourn, (e) satisfaction with current lifestyle, (f) locus of control, (g) self-esteem, (h) perceived social support and (i) general well-being.

Methodology

Procedure

A set of questionnaires were mailed to the students during the last week of July/first week of August, after an official unconditional offer for a place at the University had been given for the following academic year. The students were informed about the nature and the goals of the study through a cover letter which was distributed together with the questionnaires. More specifically they were informed that the main aim of the present study was to investigate the role of a number of parameters which may be related to the future adjustment of students to

university life. An addressed envelope was included in the set, and students were asked to return the questionnaire within the following two weeks. Their participation in the study was voluntary and students were assured that participation or non-participation in the study would not in any way affect their status at the University. The questionnaire was anonymous and the students were assured about the strictly confidential treatment of their responses throughout the study.

A total of 1000 sets of questionnaires were sent to 600 home, and to 400 non-home students, who would commence undergraduate and postgraduate study in September. The questionnaire for the home students was very similar to the one sent to non-home students with only a few minor modifications. 14 sets of questionnaires were discarded from the home group, and 19 from the non-home group for extensively missing data (more than 10%), leaving a sub-sample of 244 home (40.6% response rate), and a sub-sample of 186 non-home students (46% response rate). The response rate was much higher than the 30% average of postal surveys discussed by Shaughnessy and Zechmeister (1985) and compares favourably with the 42% response rate of Ward and Searle (1991) which also included voluntary participation of a student sample.

Subjects

The final sample consisted of 244 (56.7%) home (British) students, and 186 (43.2%) non-home students of 25 different nationalities (European, Asian, American, African, and Middle Eastern). 214 students were males (49.7%), and 211 (49%) were females. The mean age of the whole sample was 27.3 years ($sd=7.23$), with a range of 18 to 52. The great majority of students (70.9%) were single, 15.3% were married, and 3.5% of the students were divorced, separated or widowed.

Measures

Part I : Personal Details Form

Data concerning gender, age, marital status, nationality, and years of previous experience living or studying away from home, were collected from all the subjects by means of a self-report personal details form. In addition, a number of questions were included concerning:

- (a) who took the decision for the student to study at this University (own decision, family, home university, financial supporter), 1-item;
- (b) reasons for deciding to study at this University (5 items; e.g. in order to get a good degree, in order to gain academic/professional expertise, in order to avoid family pressures and demands etc; each item scored on a 5-point Likert scale ranging from strongly /agree, unsure, to strongly/disagree);
- (c) optimistic expectations, concerning social and academic aspects of life at the University (6 items; e.g. regarding successful completion of studies, making new friends and so on; each item scored on a 5-point Likert scale ranging from very/optimistic, unsure/no expectation to very/pessimistic; a high score indicates optimistic expectations);
- (d) how well-informed students were for several aspects of academic standards and social life in Scotland; this scale can be considered to be similar to the one used by Ward and Searle (1991) measuring cultural knowledge (11 items; e.g. how well informed are you regarding academic standards, social life, politics etc.; each item scored on a 5-point likert scale ranging from very/well informed, unsure, to not well/not at all informed);
- (e) previous experience studying or living away fromy home (2 items, each scored on a 5-point likert scale, with higher scores indicating more experience of sojourn);
- (g) previous experience working/living/studying in a country other than their own (1 item, in a yes/no format);
- (h) perceived confidence with the English language (one item scored on a 5-point likert scale, ranging from 'very confident' to 'not at all confident');
- (i) satisfaction with current lifestyle (6 items, e.g. how satisfied are you currently with your residence, financial status, academic status, relationship with friends and so on; each item

scored on a 5-point likert scale, ranging from 'very satisfied', 'unsure', to 'very unsatisfied').

Part II: Standardized Measures

Measures of Personality

(a) Locus of Control (Levenson, 1981)

This measure consists of 24 items, each with a 7-point Likert scale, measuring three dimensions of expectancy: Internal (I scale), Powerful others (P scale), and Chance (C scale). The I, P, and C scales were originally designed as a reconceptualization of Rotter's I-E scale, and they were composed of both items adapted from Rotter's scale and a set of statements written specifically to tap beliefs about the operation of the three dimensions of control: Beliefs in Personal Control (I scale), Powerful Others (P scale), and Chance or Fate (C scale). This scale has been shown to have good psychometric characteristics.

(b) The Index of Self-esteem (ISE, Hudson, 1982) is a 25 item, self-report questionnaire designed to assess the degree or magnitude of a problem that a person has in the area of self-esteem. All items are in statement format. Respondents are required to rate each item-statement from 'rarely or none of the time' to 'most or all of the time', on a 1 to 5 scale. The scoring system was reversed in the direction of high self-esteem, with higher scores indicating a higher degree of self-esteem. The ISE is internally consistent ($\alpha = .93$), has good test-retest reliability ($r = .92$), and has good known groups validity ($r = .52$). The Cronbach's alpha for this study was 0.93.

(c) Global Social Support (ISEL, Cohen et al, 1985) was assessed using the general population form of the Interpersonal Support Evaluation List (ISEL, Cohen et colleagues, 1985). The ISEL consists of 40 items in statement format, concerning the perceived availability of social support resources. The items are counterbalanced for desirability that is, half of the items are positive about social relationships, and half are negative statements.

It has 4 sub-scales of twelve item statements each, and each sub-scale is constructed to measure a different element of Social Support. The four sub-scales refer to the following elements: a) Appraisal Support, b) Belonging Support, c) Tangible Support, d) Esteem Support. In the present study only the first three sub-scales were used because many items of the last subscale overlap with the index of Self-esteem. The internal reliability for the present study was 0.91.

(d) Loneliness (Russell, Peplau and Cutrona, 1980)

Although there are a number of scales available for measuring Loneliness, the UCLA-Loneliness scale and the Revised-UCLA Loneliness scale are the most widely used (Russell, Peplau and Cutrona, 1980). The latter has a high internal consistency ($\alpha = .94$) and a number of studies indicate good concurrent and discriminant validity. The R-UCLA loneliness scale which was used in this study consists of twenty items in a statement format. Subjects indicate how often they feel the way described in each of the statements, and the answers range from 'never' to 'often'. All items are counterbalanced for Social Desirability. The internal reliability for the present study was 0.93.

(e) General Well-being (Goldberg and Hillier, 1979)

The General Health Questionnaire, 28-item (Goldberg & Hillier, 1979) was used as measure of general well-being. The General Health Questionnaire is the short version of the original GHQ-60 (1972). The GHQ is a 28-item statement questionnaire and it was designed as a measure of psychiatric caseness. It consists of 4 sub-scales, with 7 items each, and each sub-scale measures a different aspect of well-being: a) Somatic Dysfunction; b) Social Dysfunction, c) Anxiety and Insomnia, and finally, d) Depression. The CGHQ method of scoring (Goodchild and Duncan-Jones, 1985) was adopted because it has been shown to increase the instrument sensitivity and at the same time to decrease skewness.

Several cut-off points of psychiatric caseness have been established (Goldberg and Williams,

1988), with the 4/5 as the most common, and the 12 as the higher. However, for the purpose of this study, where the sample is not part of a clinical population and the aim is not the identification of clinical cases we will not refer to any cut-off point but to the relative comparison of individual scores. The GHQ-28 has been shown to be valid ($r = 0.76$), and reliable ($r = 0.90$) (Robinson and Price, 1982). For the present study the internal reliability was 0.89.

Data analysis

Home and non-home students were compared in respect of demographic characteristics and questionnaire responses using chi square tests and independent t-tests were appropriate. Investigation of the relation between variables was examined by means of Pearson correlations. As not all respondents completed all questions the total number of replies for certain questions may therefore be slightly less than the study total of 244 home students and 186 non-home students.

RESULTS

(A) Differences between Home and Non-home students

A number of comparisons were performed between the two broad groups of Home (British) and Non-home (non-British) students revealing a number of significant differences between the two groups, as shown in tables 1 and 2. In comparison to home students, non-home students were significantly older ($t = 2.16$, $df = 428$, $p < .001$). A greater proportion of non-home students (80.6%) were attending postgraduate courses ($\chi^2 = 124.49$, $df = 1$, $p < .001$). No significant differences were found regarding the marital status of home and non-home students ($\chi^2 = 3.57$, $df = 1$, ns).

When subjects were asked 'How much experience living/studying or working away from home they had' and replies were on a 5-point scale from 'a great deal' to 'not at all' no significant differences were reported between home and non-home students ($t = -1.87$,

Table 6.1 Demographic Information for Home (n=244) and Non-Home (n=186) students

Measure	Home students N (%)	N-Home students N (%)	χ^2	df	p
1. Gender					
males	114 (46.7%)	150 (80.6%)			
females	128 (52.5%)	36 (19.4%)	1.9	1	ns
2. Marital status					
single/separated	163 (66.8%)	135 (72.6%)			
married/having a serious relationship	81 (33.2%)	50 (26.9%)	3.57	1	ns
3. Decision					
myself	238 (97.5%)	157 (84.4%)			
other	6 (2.4%)	25 (13.4%)	25.33	1	<.001
4. Status:					
Undergraduates	175 (72.7%)	36 (19.4%)			
Postgraduates	68 (27.9%)	150 (80.6%)	124.49	1	<.001
5. Experience living/studying in another country					
Yes	75 (29.8%)	79 (44.4%)			
No	177 (70.2%)	98 (55.1%)	11.68	1	<.001

Table 6.2 Comparison of Home(n=244) and Non-Home(n=186) students

Measure	Home Students Mean (SD)	N-Home students Mean (SD)	df	t-test	p
1. Internal Locus of Control	15.52 (6.31)	16.79 (6.68)	428	-2.01	<.05
2. Belief in Powerful Others	17.19 (6.44)	16.03 (6.38)	428	2.83	<.01
3. Belief in Chance	16.08 (6.48)	16.59 (6.38)	428	-.81	ns
4. Self-Esteem	88.58 (12.85)	93.19 (10.07)	428	4.63	<.001
5. Social Support	53.37 (5.89)	53.80 (10.07)	428	-.76	ns
6. GHQ	8.28 (5.83)	7.31 (5.25)	428	1.81	ns
7. Optimistic Expectations	21.31 (4.28)	18.96 (7.21)	399	4.05	<.001
8. Satisfaction with life	28.58 (5.33)	30.48 (4.72)	398	-3.43	<.01
9. Experience of sojourn	4.54 (3.20)	18.40 (6.25)	425	-19.32	<.001

df=428, ns). However, when objective length of time living/studying or working away from home was actually measured, non-home students in comparison to home students reported a significantly greater amount of time and experience in this area ($t=-19.32$, $df=425$, $p < .01$). Moreover, a significantly higher percentage of non-home students (44.4%) in comparison to home students (29.8%) reported having lived in a country other than their own ($\chi^2=11.68$, $df=1$, $p < .001$).

In respect to who took the decision for the student to go to University, a slightly higher percentage of home in comparison to non-home students (5.2% vs 3.9%) attended because of their family's wish ($\chi^2=24.34$, $df=1$, $p < .001$). In addition, there was however, a substantial minority of non-home students (7.8%) for whom the decision was taken by the home University or by the financial supporter (usually the country's government, or the employer). Overall, it was more likely for home students (97.5%) than non-home students (84.4%) to have decided themselves to come to university ($\chi^2=25.33$, $df=1$, $p < .001$).

There was also a significant difference found between home and non-home students, in respect to the reasons for deciding to come to the University. Although the percentages of home and non-home students deciding to come to University 'in order to get a good degree' ($\chi^2=3.03$, $df=1$, ns), or to gain academic/professional expertise' were quite similar ($\chi^2=3.32$, $df=1$, ns), there were many differences in respect to the other reasons. The percentage of non-home students reporting that one of the reasons for deciding to come was 'in order to have more opportunities when going back' was almost double (65.7%) the percentage of home students (34.2%) ($\chi^2=123.76$, $df=1$, $p < .001$). As might be expected, almost 40% of non-home reported as one of the reasons for attending university in question was 'in order to learn the language/culture'. A quite high percentage (44.1%) of non-home students reported as one of their reasons for attending university 'more opportunities for a future career' ($\chi^2=132.48$, $df=1$, $p < .001$), while a far smaller proportion (6.2%) of home students reported the same reason. Finally, it was quite interesting to find that 22.6% of home students in comparison

to 7.1% of non-home students reported as one of their reasons for deciding to come to University, the desire to avoid family pressures and demands ($\chi^2=15.99$, $df=1$, $p<.001$).

Further analysis showed that those students who reported 'avoiding family pressures and demands' as one of their major motives for deciding to come to the university ($n=68$) had a higher score in the P-scale (Belief in Powerful Others) ($t=-2.50$, $df=428$, $p<.05$), and a lower score in perceived Social Support ($t=1.96$, $df=428$, $p<.05$); they also reported being less close to family, friends and spouse/ girlfriend/ boyfriend ($t=4.32$, $df=428$, $p<.001$), having a lower self-esteem ($t=4.86$, $df=428$, $p<.001$) and being more lonely ($t=-5.66$, $df=428$, $p<.001$) than students who did not mention this as one of their reasons for coming to the University.

Regarding students replies to the 6 items measuring Optimistic Expectations about several aspects of academic and social life while at university non-home students in comparison to home students, were more pessimistic in their overall Expectations ($t=4.09$, $df=399$, $p<.001$). In particular, non-home in comparison to home students were more pessimistic about completing their studies (37.6% vs 43.8%, $\chi^2= 13.82$, $df=1$, $p<.001$) and about life in general at the university (44.5% vs 47.2%, $\chi^2= 4.54$, $df=1$, $p<.05$). There were no significant differences between the two groups in level of optimism or pessimism regarding ability to make new friends ($\chi^2=1.06$, $df=1$, ns), to adjust to university lifestyle ($\chi^2=3.29$, $df=1$, ns), and to mix with other students ($\chi^2=1.94$, $df=1$, ns).

In respect to personality and general well-being variables, there was a significant difference in respect to internality-I scale ($t=2.01$, $df=428$, $p<.05$), and to the P scale ($t=2.83$, $df=428$, $p<.01$), with non-home students having a higher score in I scale and a lower score in Belief in Powerful Others-P scale. In other words, non-home students appear to be more internal and with a lower Belief in Powerful Others. Further analyses between different nationality groups (Europeans, Asians, Arabs, Africans, Canadian/ Americans/ Australians)

gave no significant differences.

Non-home students had a higher Self-Esteem than home students ($t=4.63$, $df=428$, $p < .001$), and a lower degree of experienced Loneliness ($t=3.49$, $df=428$, $p < .01$). Furthermore, non-home students were overall more satisfied with several aspects of their life, i.e. with personal relationships (family, partner, friends, and colleagues-when applicable), with academic status, career prospects, residence and with overall living standards ($t=3.43$, $df=343$, $p < .01$). No significant differences were found in perceived Social Support ($t=-.76$, $df=428$, ns), or in general Well Being ($t=1.81$, $df=428$, ns).

(B) Information about different aspects of life while at University/ Cultural knowledge

In the set of questionnaires distributed to the non-home students there were a number of questions regarding how well-informed about several aspects of life in Scotland students felt they were. Analysis of their responses revealed that between a quarter and a half of all the students had very little information about aspects of life in the new host country before arrival at University. Although it may have been expected that non-home students would not have much knowledge about politics (53.4%), values (47.8%), social rules (51.7%) and social life (33.1%), it was surprising (and alarming) to find that a very high percentage of students either had little or no information (22.5%), or were unsure (30.9%) about the academic standards of the Universities in Britain. In other words, approximately 53% of non-home students were uncertain about the level of academic achievement necessary at the institution to which they were travelling abroad. Conversely most of the non-home students (62.9%) reported being quite well-informed about the Scottish climate.

Difference between two 'experience' groups

The entire group of home and non-home students were divided into two groups, above and below the group mean, depending on the degree of previous living or studying away from home as measured in months. These two groups did not differ as regards overall Optimistic

Expectations about academic and social aspects of University life ($t=-.49$, $df=399$, ns). Neither did these two groups differ regarding the overall amount of information they had about aspects of life in the new host country ($t=-1.01$, $df=428$, ns).

Differences between male and female students

There were no sex differences on any of the variables assessed in this study either when assessing the whole sample in its entirety or when assessing home and non-home students separately. The means, standard deviation and t-tests between males and females are presented in table 3.

Relationship between variables

A number of separate correlations were computed for home and non-home students. The correlations for both groups were usually, but not consistently, in the same direction (tables 4 and 5).

Expectations for the students' future adjustment to the University life (with a high score indicating being overall more optimistic about several aspects of life at university) was found to correlate with experienced Loneliness for non-home and home students respectively ($r=-.35$, $p<.001$ and $r=-.32$, $p<.001$), with Social Support ($r=.28$, $p<.001$ and $.21$, $p<.01$), with Self-Esteem ($r=.30$, $p<.001$ and $.27$, $p<.001$), with the GHQ score ($r=-.27$, $p<.001$ and $-.22$, $p<.01$), and finally with Satisfaction with current life for non-home students only ($r=.25$, $p<.01$ and $.17$, ns). In other words, students' Optimistic Expectations were negatively related to Loneliness, and to Well-Being, and positively related to perceived Social Support, and Self-Esteem. Overall, although the correlations were all highly significant and in general in the same direction, they were nevertheless higher for non-home students than those for home students.

The amount of Information or knowledge about the host culture that non-home students had

Table 6.3 Means and Standard Deviations for male (n=214) and female (n=211) students

MEASURE	Mean (SD)	df	t-test	p
1. Internal Locus of Control				
males	18.39 (6.71)			
females	19.26 (6.80)			
overall	18.85 (6.75)	426	t=-1.19	ns
2. Belief in Powerful others				
males	17.18 (6.76)			
females	18.46 (6.48)			
overall	17.86 (6.60)	426	t=.23	ns
3. Self-Esteem				
males	91.92 (11.62)			
females	90.24 (11.19)			
overall	90.93 (11.64)	426	t=1.17	ns
4. Social Support				
males	53.15 (6.12)			
females	53.82 (5.46)			
overall	53.48 (5.69)	426	t=-1.07	ns
5. GHQ				
males	7.19 (5.59)			
females	8.46 (5.57)			
overall	7.89 (5.61)	426	t=-2.11	ns
6. Loneliness				
males	36.83 (10.98)			
females	37.55 (10.82)			
overall	37.17 (10.85)	426	t=-.61	ns

Table 6.4 Correlations for Home students only

MEASURE	1	2	3	4	5	6	7	8	9	10
1.Internality	1.00									
2.Powerful others	.41**	1.00								
3.Chance	.59**	.46**	1.00							
4.Self-esteem	-.39**	-.29**	-.37**	1.00						
5.Expectations	.04	-.09	.27**	.27**	1.00					
6.Social Support	-.22*	-.19	-.21*	.35**	.21*	1.00				
7. Loneliness	.32**	.27**	.35**	-.65**	-.32**	-.44**	1.00			
8. GHQ	.22*	.28**	-.24*	-.56**	-.22*	-.28**	.59**	1.00		
9.Satisfaction with relation.	-.23*	.22*	-.24*	.38**	.26**	.32**	-.62**	-.44**	1.00	
10.Overall satisfaction	-.19	-.16	-.23*	.33**	.17	.32**	-.50**	-.38**	.66**	1.00

** Significant at p<.001 * Significant at p<.01

N=244

Table 6.5 Correlations for Non-Home students only

MEASURE	1	2	3	4	5	6	7	8	9	10
1.Internality	1.00									
2.Powerful others	.44**	1.00								
3.Chance	.58**	.41**	1.00							
4.Self-esteem	-.30**	-.36**	-.38**	1.00						
5.Expectations	-.13	-.12	-.22*	.30**	1.00					
6.Social Support	-.28**	-.14	-.40**	.45**	.28**	1.00				
7. Loneliness	.31**	.28**	.37**	-.60**	-.35**	-.58**	1.00			
8. GHQ	.22**	.27**	.43**	-.40**	-.27**	-.35**	.48**	1.00		
9.Information	-.15	-.12	-.05	.09	.25*	.13	-.22*	-.08	1.00	
10.Overall satisfaction	-.11	-.12	-.12	.27**	.25*	.32**	-.39**	-.20	.06	1.00

** Significant at p<.001 * Significant at p<.01

N=186

prior to departing for the University was negatively related to Loneliness ($r = -.22, p < .01$), with more lonely students being less well informed. The amount of Information was positively related to Optimistic Expectations ($r = .25, p < .01$); more well-informed students were more optimistic about several aspects of university life.

Discussion

The study presented in this article yielded a number of interesting findings in relation to a number of issues which are likely to be of relevance in the adjustment of students to University life.

For the vast majority of students the decision to come to University was a personal choice. In other words for most students the personal control over the decision was quite high. However, the percentage of non-home students for whom the decision was taken by family/financial supporter or employer was significantly higher than that of home students.

The study was partly concerned with the motives and expectations of home and non-home students prior to their arrival at University. Both home and non-home students reported as their main reason for attending university their wish to get a good degree/or academic and professional expertise. A substantial percentage (40%) of non-home students reported as one of their main reasons for attending a foreign University the opportunity to learn a new language and experience a different culture. A significantly higher percentage of non-home students (44.1 %) than home students (6.2%) reported as one of their main reasons for attending the University in question 'in order to have more opportunities for a future career'. One of the most interesting findings was the fact that almost a quarter of the home students (22%) reported as one of their reasons for attending University their desire to avoid family demands and home pressures. The respective percentage of non-home students who reported this reason was significantly much lower (7.1%). However, this finding may simply be related to the fact that most of the home students in the present sample were undergraduates,

and in this case the transition to university may coincide with the desire for more personal independence, as part of the growing up process from adolescence to adulthood. On the other hand, further analysis did show some differences between the two groups, with students who were attending University to avoid family pressures and demands having higher scores in Belief in Powerful Others, having lower Self-Esteem and a lower degree of perceived Social Support from family and friends, which may suggest the influence of individual differences. Given that a number of students, particularly home students, decide to go to the University in order to escape from family pressures and their dissatisfaction with personal relationships, it would be quite interesting to investigate how this parameter affects the students' future adjustment.

As one might expect, a high percentage of non-home students had limited knowledge about several aspects of social and academic life in Scotland. It is noteworthy that particularly in respect to academic standards, non-home students felt that they were not well-informed prior to university attendance; the implications of such a lack of knowledge, may be quite significant for the students academic and psychosocial adjustment to University. This is a point that needs further investigation.

In respect to Optimistic Expectations, non-home students appeared to be overall more pessimistic than home students, particularly regarding academic-related issues but not so regarding social adjustment. Bearing in mind that non-home students report having much less information/ knowledge about several aspects of life in the new host country, and that Optimistic Expectations were found to correlate positively with the amount of information students have, it is logical to hypothesize that this lack of information may underlie, up to a point, the non-home students' pessimism. A positive relationship was found between Expectations, Social Support, Self-Esteem, and General Well-Being. In addition, a negative relationship was found between Expectations and Loneliness. In the case of non-home students, Optimistic Expectations for future successful adjustment were positively related to

satisfaction with current relationships, work, living conditions and career conditions and prospects.

The amount of information students had prior to arrival regarding academic and social aspects of life in the new host country was negatively related to experienced Loneliness. One possibility is that this relationship may suggest that lonely students may be less enthusiastic about the forthcoming change in their lives, and possibly less willing to seek information about it. However, there is also the possibility that other factors may underlie this relationship.

Perhaps the dominant finding in this study were the number of very interesting differences found between home and non-home students, prior to arrival to university. Non-home students were found to be, as a group, highly motivated, having positive Self-Esteem, being more Internal and having less Belief in Powerful Others than home students. Furthermore, they reported being overall more satisfied with the quality of their lives and their relationships, being less lonely and having more experience of living/working or studying away from home and/or in another country (other than their own) than home students. All of these variables have been linked in studies which investigated successful adjustment to University life, post-hoc. It has been argued that people who have an Internal Locus of Control tend to view life changes as challenges and make the best use of their resources to minimize experienced stress. On the other hand, people with an External Locus of Control tend to regard life changes as threats (Lefcourt, 1976; Lu, 1990). Furthermore, earlier research (Nelson and Cohen, 1983; Sandler and Lakey, 1982) has indicated that Internal Locus of Control-the core element of Hardiness (Kobasa, 1982)-may affect resiliency to stress. More specifically, it has been argued (Gentry and Kobasa, 1984; Kobasa, 1982) that hardy individuals possess a set of attitudes that render them stress resistant. The characteristics of sense of commitment, positive response to challenge and Internal Locus of Control combine to buffer the hardy individual from the negative effects of coping with change. In general,

both retrospective and prospective research seems to indicate that hardy individuals can endure large amounts of life change without manifesting the elevated illness scores of their high-stress, non-hardy counterparts (Rhodewalt and Zone, 1989). Although in this study Hardiness was not measured as such using a standardized measure, the high Internal Locus of Control score and the high commitment and motivation reported by non-home students, may indicate that non-home students can be considered to be, in general, more hardy than home students.

Moreover, research has shown that Self-Esteem has been found to be a key personal attribute in studies of both social competency (Hansson, Jones and Carpenter, 1984; Jones, 1985) and stress resistance (Hobfoll and Halfisch, 1984; Pearlin, Lieberman, Menaghan and Mullan, 1981; Hobfoll, Nadler and Lieberman, 1986). Taken together with more previous experience living away from home-which has been shown to be related to successful adjustment later on (Rosenbaum, 1978; Fisher et al, 1986)- it can be argued that the present results indicate that, on the basis of pre-attendance assessment, non-home students appear, in some respects, better equipped than home students to cope with the transition. In other words, it would be expected that they will experience fewer adjustment problems than home students. However, this hypothesis does not seem to be supported by the prevailing literature on students' transition to university, which has shown that non-home students experience more adjustment difficulties than home students.

It is noteworthy that although non-home students appear to be well-equipped for the transition in terms of motivation, previous experience of sojourn and personality characteristics, there are specific areas where non-home students appear lacking e.g. overall pre-attendance information about several aspects of life in the new host country, and particularly regarding information about academic standards. Taking also into consideration the fact that non-home students were much more reserved regarding their ability to cope with the academic demands of the new environment, it seems likely that such lack of information, prior to arrival, could adversely affect the non-home students' adjustment. Although non-home students, in

comparison to home students, appear better equipped in many social respects and personality attributes to cope with the transition, their lack of academic information and concern about academic performance may negate their potential resilience. This point requires further investigation.

The shortcomings of this study must be noted. First, the composition of the sample is heterogeneous. Although in the present study, an attempt was made to analyze differences among a number of cultural groups (e.g. Europeans, Asians, and so on) the very unequal sizes of these groups put the validity of such comparisons under question. Thus, it was decided to have two groups only of home and non-home students, and despite the possible diversity of the second group, to concentrate on differences and similarities of these two main groups as did Searle and Ward (1991). Second, another concern relates to the 40.6% and the 46% response rate for home and non-home students respectively in this study. On the one hand, it is true that less than half of the research population completed the questionnaire (possibly due not only to their unwillingness to participate, but also to the fact that not all the students who received the questionnaire were actually planning to come to the University in question). However, the response rate was much higher than the 30% average of postal surveys discussed by Shaughnessy and Zechmeister (1985). In addition, the response rates are comparable with that of other similar studies (e.g. Ward and Searle, 1991). Another limitation relates to the fact that a Lie-sensitive/Social Desirability scale was not included in the study; this leaves open the possibility that a number of students with a high score in social desirability, should have been excluded from the overall analysis. Nevertheless the findings of the present study provide a number of suggestions for future research in this area. A number of issues require attention, such as the fact that a number of home students decide to go to the University, in order to avoid family pressures. It is unknown whether avoidance of such family pressure predisposes to successful or unsuccessful academic adjustment and attainment or has no bearing at all on eventual outcome. The role of major personality variables such as Locus of Control, Self-Esteem, Optimism, Neuroticism and Extraversion

require future investigation regarding their impact on future adjustment. However, most importantly there is a need for longitudinal research in order to assess the actual contribution of individual pre-attendance characteristics on eventual social and academic performance and adjustment whilst at University.

CHAPTER 7: STUDY II

**Personality, Social Support, Cultural Distance and
Psychosocial Adjustment of Home and Non-Home
students during the early stage of transition to
University**

Abstract: The main aim of the present study is threefold: (a) to investigate the role of individual personality variables regarding poor or successful psychosocial adjustment to University life; (b) to examine the role of Cultural Distance to the psychosocial adjustment of non-home students to University life, and finally, (c) to study the personality, social support and well-being differences between those students who do, or do not, develop a satisfactory relationship with another student in the early stages of transition to University. One hundred and ninety three first year home students (British) and seventy four non-home students (from 17 nationalities) completed a questionnaire approximately two weeks after their arrival to University, which assessed: experienced homesickness, having established a friendly relationship with another student since their arrival, personality (Neuroticism, Extraversion, Social Inhibition and perceived Social Competence, Self-Esteem), Cultural Distance (for non-home students), State Anxiety, Perceived Social Support, and Loneliness. The results indicated that: (a) personality factors contribute significantly to the prediction of perceived Social Support, (b) Cultural Distance together with increased Social Inhibition in the new environment might interfere with the non-home students' adjustment, and (c) significant personality and well-being differences were found between the students who developed a friendly relationship early on at the transition and those who do not. Results are discussed in relation to the literature on psychosocial adjustment.

Introduction

One of the major transitions in many people's adult lives is the transition from school to university. For some, this transition may also include moving abroad for academic related reasons. During the last thirty years numerous studies have taken place on the study of adjustment after a relocation, including the relocation of students. Although most of the early research has been confined primarily to the study of foreign or non-home students, recently the focus seems to be shifting to home students as well.

A number of different factors have been studied, investigating their possible contribution to students' successful or poor psychosocial and academic adjustment to University life. For example, background variables such as age, sex, marital status and social class; previous experience of sojourn (Amir, 1969; Basu and Ames, 1970; Bochner, 1972; David, 1973); fluency with language (Sewell and Davidsen, 1961; Gullahorn and Gullahorn, 1966; DiMarco, 1974); the amount of social interaction with people and particularly with host students (Klineberg and Hull, 1979; Bochner and Furnham, 1986), and so forth. Bochner and Furnham (1986) and Church (1982) give two excellent reviews of the relevant literature. Such studies have concentrated mostly on the social, environmental and cultural aspects that may influence a students' ability to adjust satisfactorily. Unfortunately, there has been a relative lack of studies concerning individual differences in personality that might predispose to successful or poor adjustment. Early studies focused on the authoritarian personality (Adorno, 1950; Mischel, 1965; Basu and Ames, 1970; Chang, 1973), while later studies tried to identify possible vulnerability factors predictive of poor adjustment (e.g. Davidson et al. 1950; Bean and Betzner, 1985; Chartrand, 1990; Fischer et al, 1989; 1991; Cutrona, 1982; Shaver et al, 1986; Chataway and Berry, 1989; Lu, 1991, 1994).

Despite the numerous studies in other areas of psychology on Neuroticism and Extraversion, studies on the adjustment of students in relation to such personality dimensions are very scarce. In fact, only four studies were found which refer to Neuroticism and Extraversion

(Searle and Ward, 1990; Ward and Searle, 1991; Hojat, 1982; Lu, 1994). With the exception of the study by Hojat, 1982, which investigated personality correlates of Loneliness among students of one nationality at home and abroad, all of the remaining three studies investigated the role of Extraversion in the psychosocial adjustment of non-home students alone.

However, recent developments in other areas of psychology, e.g. in Loneliness, Social Support, Happiness, Adjustment after major life events etc., have shown that Neuroticism and Extraversion in relation to the adjustment to University life are major predictors of successful or poor psychosocial adjustment and one might expect such variables to have an important role. More specifically, Neuroticism and Extraversion, as well as the extended notions of Negative and Positive Affectivity (Watson and Clark, 1984; Watson et al., 1985, 1989) have been shown to be highly related to a wide range of factors, from loneliness, social support and marital or job satisfaction to physical and mental health (Watson and Pennebaker, 1989).

Another concept which, although not entirely new, was operationalized into a specific construct only during the 1980's, is the notion of Culture Distance. Babiker, Cox and Miller (1980) hypothesized that the degree of alienation, discomfort and concomitant psychological distress could be a function of the distance between the student's own culture and the new culture. Accordingly, they devised an instrument, the Cultural Distance Index (CDI), which provided an objective assessment of the disparity between two cultures, uncontaminated by the students' own perception of their feelings or differences about them. In their study with a sample of 121 overseas students at Edinburgh University they investigated the possible relationship between Cultural Distance, medical consultations, reported symptoms and academic success in examinations. Culture Distance was found to be highly correlated with anxiety during the Easter term and the total number of medical consultations during the academic year, but not with examination success. In another study, Furnham and Bochner (1982) found that the degree of difficulty experienced by sojourners in negotiating everyday encounters was directly related to the disparity (or Culture Distance) between the sojourner's

culture and the host culture. Such research indicates that the concept of Cultural Distance may possibly be a useful variable in the study of students' psychosocial and academic adjustment. Unfortunately, no other studies have investigated Cultural Distance using this index.

In addition, there seems to be a lack of studies concerning the relationship between Cultural Distance, personality variables and social support in the context of psychological adjustment to University life. The only studies on this subject are one study by Ward and Kennedy (1993) on the adjustment of Malaysian and Singapurian students in N.Zealand, and two more studies by Searle and Ward (1990), and Ward and Searle (1991), again in N.Zealand, where Cultural Distance and lack of cultural knowledge were found to be significant predictors of social difficulty, and a significant predictor of mood disturbance when combined with loneliness.

Regarding the development of new social relationships quite a few studies have been done on the development of social networks, mainly in universities in Australia and the United States (e.g. Duck, 1977; Duck and Craig, 1978; Duck and Spencer, 1972; Klinenberg and Hull, 1979). Bochner and his colleagues have undertaken a great deal of research on foreign students' social networks (Bochner, Buker and McLeod, 1976; Bochner, McLeod and Lin, 1977; Bochner and Orr, 1979; Furnham and Bochner, 1982). A few studies can also be found on the development of new relationships and maintenance of established ones, during the academic year, for home students (e.g. Shaver et al. 1986). The reason for the interest on this subject is the hypothesis that social interaction (particularly with host students) is a significant predictor of adjustment to University, when this is defined as development of positive attitudes toward the host country (Basu and Ames, 1970; Chang, 1973; Hassan, 1962; Heath, 1970). Even when adjustment is not defined in those terms in general population samples, social relationships-or more specifically subjective satisfaction with relationships- has been found to be highly and consistently related to satisfactory psychosocial adjustment, happiness and general well-being (e.g. Berkman and Syme, 1979; Brown and Harris, 1978; Cassell,

1976; Cobb, 1976).

However, despite all this research in the area of Social Support and Adjustment, very few studies have investigated the development of new relationships during the early stages of transition to University among students, especially in relation to personality and background variables (Cutrona, 1982; Shaver et al, 1986). Cutrona (1982) asked students to refer to the number of people they knew well or casually after two weeks at University, and found no differences in terms of the number of people reported by lonely and non-lonely students. Shaver et al. (1986) investigated the development of new relationships and the effect of the transition to University over already established relationships (i.e. family, friends and romantic relationships), and referred to the significant role of social skills in the development and maintenance of social relationships during transition to university.

Nevertheless, for both home and non-home students there are still a number of questions which remain unanswered. For example, what is the role of individual personality variables regarding poor or successful psychosocial adjustment to University life? Furthermore, for non-home students what is the role of Cultural Distance regarding psychosocial adjustment to University life? Finally, what differences exist between those students who do, or do not, develop a satisfactory relationship with another student in the early stages of transition to University?

Procedure

400 sets of questionnaires were given to a consecutive sample of home and non-home first year undergraduate and postgraduate students, at Registration, approximately two weeks after their arrival at University. A cover letter was given together with the set of questionnaires to inform the students about the objectives of the study, and to assure them about the strict confidential treatment of their responses. The questionnaires were anonymous. In addition, students were reminded that participation in the study was voluntary and no extra credit or

money were given for participation. An addressed envelope was given together with the questionnaire and students were asked to complete it and return it within the next week.

Subjects

274 sets of questionnaires were returned (response rate: 68.5%). From these questionnaires 7 were discarded for extensively missing data (more than 10% of data missing), leaving a final sample of 267 students (66.7%). The majority of the students were first year undergraduates (n=170, 63%), with 97 (36%) postgraduate students. Most of the subjects were home students (n=193, 72.3%), with 74 (27.7%) non-home students. 100 students were males (37.5%), and 167 were females (62.5%). The mean age of the sample was 25 years (sd=6.92), with a range from 18 to 52 years. The majority (88.8%) of the students were single (n=237), 8.2% (n=22) were married/cohabiting and 2.6% (n=7) were divorced/separated or widowed. Most of the students reported having taken the decision to come to the University themselves (n=260, 97%), with only 7 (6.1%) students having somebody else deciding for them, usually the student's family, employer, or financial supporter. From these 7 students, 6 were postgraduate, non-home students.

Measures

Data concerning gender, age, marital status, and nationality were collected from all subjects by means of a self-report personal details form. In addition, a number of questions were included concerning:

- (a) who took the decision for the student to study at this University (own decision, family, home University, financial supporter, other), 1 item;
- (b) experienced homesickness (2 items, regarding frequency and intensity of experienced homesickness since the students' arrival at University; each item scored on a 5-point likert scale, with a high score indicating higher degree of homesickness).
- (c) having found, since their arrival at University, another student with whom they were getting along particularly well- a potentially good friend and confidant (1 item, in a yes-no

format).

The second part of the questionnaire consisted of a number of valid, standardized (with the exception of the Cultural Distance Index), and widely used measures. More specifically, the measures used as follows:

(a) Extraversion, Neuroticism, Psychoticism and Lie scale

(Eysenck and Eysenck, 1981)

The Eysenck and Eysenck EPQ-R (1981) has been used in this study (the 48-item, short version scale) because it is valid, standardised and is one of the most widely used instrument measuring Introversion-Extraversion, Neuroticism and Psychoticism. It also includes a Lie-sensitive scale. The alpha coefficients for the present study were .84, .82, and .65 for Neuroticism, Extraversion and Psychoticism respectively.

(b) Social Inhibition and Perceived Social competence

(L.Horowitz and R. de Sales French, 1979; Adams, Opensaw, Bennion, Mills and Noble, 1988)

This is a 14-item scale which was used here to measure Social Inhibition and Perceived Social competence. The first 12 items are in a 'Yes-No' statement format (eg. 'I find it hard to make friends in a simple, natural way'), and the last two consist of two statements each. The items were first designed by Horowitz and French (1979) and they were operationalized into a measure by Adams et al (1988), used in their study on loneliness in late adolescence. They reported a split-half reliability of $r=.84$, and a coefficient alpha of .81. The reason for choosing this scale in the present study is the face validity of the scale, the simplicity of the language and the short length of the measure. The alpha coefficient for this study was .89.

(c) State Anxiety

(Spielberger et al., 1980)

State -Trait Anxiety Inventory-Form Y. The STAI (Spielberger et al, 1970) consists of two

scales developed to provide operational measures of state and trait anxiety. Each scale contains 20 items that either describe symptoms of anxiety or indicate the absence of anxiety. The STAI-A State scale requires respondents to indicate the intensity of their anxiety at a particular moment, whereas the STAI-Trait scale assesses the general frequency of specific anxiety symptoms. Both the stability of the STAI A-trait scale and the sensitivity of the STAI-A-State scale to threats to Self-Esteem and physical safety have been examined, and the results have consistently supported the use of these scales in anxiety research (Auerbach, 1973). Levitt's (1967) review concluded that the STAI was the most carefully developed psychometric instrument available for measuring Anxiety, and in fact the STAI has been used more often in psychological research than any other measure of Anxiety. Spielberger et al (1980) reported a psychometrically improved version of the STAI, the STAI form Y, and this version of this A scale was administered in the present study (Gotlib, 1985), with an alpha of .93.

(d) Self-esteem

(Hudson, 1982)

The Index of Self-esteem (ISE, Hudson, 1982) is a 25 item, self-report questionnaire designed to assess the degree of magnitude of a problem that a person has in the area of self-esteem. All items are in statement format. Respondents are required to rate each item-statement from 'rarely or none of the time' to 'most or all of the time', on a 1 to 5 scale. The scoring system was in the direction of high self-esteem, with higher scores indicating a higher degree of self-esteem.

The ISE is internally consistent ($\alpha = .93$), has good test-retest reliability ($r = .92$), and has good known groups validity ($r = .52$). Another advantage of the scale is that it has a strong developmental and statistical background which indicates that it is a good measure of self-esteem. The alpha coefficient for the present study was .87.

(e) Cultural Distance

(Use of a modified version of the Cultural Distance Index, Babiker, Cox and Miller, 1980)

Babiker, Cox and Miller developed an instrument to measure the distance between two cultures based on the social and physical attributes of the countries in question. Their final selection included ten parameters: climate, clothes, language, educational level, food, religion, material comfort, leisure, family structure and family life, courtship and marriage. The authors give a straight forward way of scoring the index, and they mention that despite a number of limitations, the instrument has functioned quite satisfactorily as a rough index of cultural distance (or proximity). They also add that it appears to have construct validity, at least as far as the rank ordering of the various nationalities is concerned, although not without some reservations. Finally they say that the instrument can be improved by the addition of extra items or the refinement of the measurement. The instrument used in this study was based on this Cultural Distance Index, including a number of easy to answer questions, with all the ten parameters used in this index. The internal reliability for the present study was .89.

(f) Global Social Support

(Cohen et al., 1985)

Global Social Support was assessed using the student form of the Interpersonal Support Evaluation List (ISEL, Cohen et colleagues, 1985). The ISEL consists of 48 items in a statement format concerning the perceived availability of social support resources. The items are counterbalanced for desirability. Items were developed on theoretical grounds to cover the domain of socially supportive elements of relationships which students might be expected to experience (Cohen and Hoberman, 1983).

It has 4 sub-scales of twelve item statements each, and each sub-scale is constructed to measure a different element of Social Support, a different social support function a social network might provide. The four sub-scales refer to the following elements: a) Appraisal

support, b) Belonging Support, c) Tangible Support, and finally, d) Esteem Support. In the present study, only the first three subscales were used, given that items from the last subscale seem to overlap with the Self-Esteem Index.

Respondents indicate whether each statement is probably true or false for themselves, at the time of administering the questionnaire. The ISEL is scored by counting the number of responses indicating support for each of the three sub-scales. It has reported to have very good psychometric characteristics (Cohen et al., 1985). An overall index can be calculated by summing up the support scores across the sub-scales. The alpha coefficient for the present study was .87.

(g) Loneliness

(Russel, Peplau and Cutrona, 1980)

Although there is a number of scales available for measuring Loneliness, the R-UCLA Loneliness scale is the the most widely used (Russel, Peplau and Cutrona, 1980). It has a high internal consistency (alpha =.94) and a number of studies indicate good concurrent and discriminant validity. The R-UCLA loneliness scale consists of twenty items in a statement format. Subjects indicate how often they feel the way described in each of the statements, and the answers range from 'never' to 'often'. All items are counterbalanced for Social Desirability. The overall score is calculated by adding each item's scores after reversing the positive items, so that the higher the overall score, the higher the degree of the experienced Loneliness. The alpha coefficient for the present study was .95.

Data Analysis

Comparisons between groups were by means of chi-square and unpaired t-tests. Analysis of relationships between variables within groups was by means of Pearson correlations. Hierarchical multiple regression analysis was used to examine the relative contribution of the independent variables in relation to psychosocial adjustment to University life. As not all

respondents completed all questions the total number of replies for certain questions may therefore be slightly less than the study total of 267 students.

Results

(a) Comparison of home students versus non-home students as illustrated in table 1, revealed no significant difference on the various questionnaire scales and sub-scales, including Extraversion ($t=-.54$, $df=265$, ns), Psychoticism ($t=-1.54$, $df=265$, ns), Social Inhibition and Perceived Social Competence ($t=1.80$, $df=265$, ns), State Anxiety ($t=1.80$, $df=265$, ns), Perceived Social Support ($t=1.65$, $df=265$, ns), Loneliness ($t=-.22$, $df=265$, ns) and Homesickness ($t=-.20$, $df=265$, ns). Regarding their response to whether they had found somebody with whom they were getting along particularly well-a potentially good friend, a similar proportion of home (82.3%) and non-home (81%) students had been successful in this area ($\chi^2=.56$, $df=1$, ns). However, a number of significant differences regarding two personality variables were found between home and non-home students. Non-home students had a lower Neuroticism score ($t=2.63$, $df=265$, $p<.01$), and a higher Self-Esteem score ($t=-2.48$, $df=265$, $p<.05$) than home students.

As shown in table 2, comparison of students who had or had not found a good friend since arrival at University revealed significant number of differences between these two groups. Those who had established a friendly relationship since arrival, in comparison to those who had not were more Extravert ($t=2.46$, $df=260$, $p<.05$), less Socially Inhibited ($t=-2.53$, $df=260$, $p<.05$), had higher Self-Esteem ($t=2.76$, $df=260$, $p<.01$), lower State Anxiety ($t=-2.33$, $df=260$, $p<.05$) and experienced less Loneliness ($t=-4.50$, $df=260$, $p<.001$), although no difference between groups existed regarding Perceived Social Support ($t=1.79$, $df=260$, ns). When non-home students were analysed separately, a significant difference was also found between those who had or had not developed a new relationship, in that the latter group had a higher Cultural Distance score ($t=-3.77$, $df=72$, $p<.001$).

Table 7.1 Differences in the means (SD) of Personality, Social Support and Adjustment variables between Home (n=193) and Non-Home (n=74) students

MEASURE	HOME Mean (SD)	N-HOME Mean (SD)	DF	T-TEST	Prob.
1. Neuroticism	5.82 (3.35)	4.62 (3.83)	265	2.63	< .01
2. Extraversion	7.02 (2.78)	7.21 (2.32)	265	-.54	ns
3. Psychoticism	2.36 (1.94)	2.75 (1.67)	265	-1.54	ns
4. State anxiety	49.67 (12.28)	47.44 (10.70)	265	1.38	ns
5. Inhibition	17.27 (3.93)	16.35 (3.22)	265	1.80	ns
6. Self-esteem	86.12 (13.40)	90.47 (11.09)	265	-2.48	< .05
7. Social Support	97.61 (4.89)	96.47 (5.49)	265	1.65	ns
8. Homesickness	4.21 (1.75)	4.25 (1.20)	265	-.20	ns
9. Loneliness	39.33 (12.15)	39.70 (11.27)	265	-.22	ns

Table 7.2 Differences between students with and without a friendly relationship since arrival at University

Measure	Group 1	Group 2	t-test	df	p
1. Neuroticism	5.38 (3.48)	6.34 (2.65)	-1.36	260	ns
2. Extraversion	7.18 (2.58)	5.84 (3.14)	2.46	260	ns
3. Social Inhibition	16.83 (3.70)	18.80 (4.21)	-2.53	260	< .01
4. Loneliness	38.42 (11.55)	49.15 (11.47)	-4.50	260	< .001
5. Cultural Distance	31.80 (6.26)	36.78 (10.21)	-3.77	72	< .001
6. Self-Esteem	88.16 (12.79)	80.84 (13.16)	2.76	260	< .01

Group 1: Students with a friendly relationship (n=236)

Group 2: students without a friendly relationship (n=26)

The means and standard deviations of the Personality, perceived Social Support, Loneliness and Homesickness as well as the results from the t-tests between male and female students are summarized in table 3. The only significant sex differences found were in Neuroticism ($t=-2.53$, $df=265$, $p<.05$), and in perceived Social Support ($t=-2.20$, $df=265$, $p<.05$), with female students having a higher mean score in both measures. This was also the case both for home and non-home students.

(b) Relationships between variables

A number of correlations were computed for all the students and then separately for home and non-home students. When the correlations were computed for all the students ($n=225$), Social Support correlated significantly with all the Personality variables, including Neuroticism ($-.34$, $p<.001$), Extraversion ($.35$, $p<.001$), Self-Esteem ($.41$, $p<.001$), Social Inhibition ($-.52$, $p<.001$), plus State Anxiety ($-.36$, $p<.001$). Thus, those students who feel that they have high levels of Social Support are also more outgoing, more sociable, less socially inhibited and positive in their self-perception. For both home and non-home students Loneliness correlated positively with Social Inhibition ($r=.66$, $p<.001$), Neuroticism ($r=.56$, $p<.001$) and State Anxiety ($r=.65$, $p<.001$), and negatively with Extraversion ($r=-.54$, $p<.001$), Self-Esteem ($r=-.61$, $p<.001$) and Perceived Social Support ($r=-.59$, $p<.001$). Therefore, the most lonely of students are also among the most inhibited and anxious individuals with poor Self-Esteem, lack of Perceived Social Support and introverted Personality.

The correlations for home and non-home students are summarised in tables 4 and 5. In respect to the non-home students, it is noteworthy that Cultural Distance correlated negatively with Extraversion ($r=-.35$, $p<.01$) and Perceived Social Support ($r=-.37$, $p<.01$), and positively with Social Inhibition ($r=.39$, $p<.001$). Thus, the greater the Cultural Distance between the students' culture and the host culture the more introverted, socially inhibited and less socially supported the students felt they were.

Table 7.3a Means and Standard Deviations of Personality Measures for Home and Non-Home students
Differences between male (n=100) and female (n=167) students

MEASURES	MEAN (SD)	DF	T-TEST	PROB.
1. Lie scale				
males	4.13 (2.58)			
females	4.26 (2.61)			
overall	4.21 (2.6)	265	-.41	ns
2. Neuroticism				
males	4.82 (3.54)			
females	5.89 (3.25)			
overall	5.49 (3.40)	265	-2.53	p < .05
3. Extraversion				
males	6.73 (2.73)			
females	7.28 (2.59)			
overall	7.07 (2.65)	265	-1.65	ns
4. Psychoticism				
males	2.60 (1.95)			
females	2.39 (1.83)			
overall	2.47 (1.87)	265	.86	ns
5. Inhibition				
males	17.46 (4.23)			
females	16.75 (3.44)			
overall	17.01 (3.77)	265	.92	ns
6. State Anxiety				
males	47.35 (12.01)			
females	50.08 (11.72)			
overall	49.06 (11.88)	265	-1.83	ns

**Table 7.3b Means and Standard Deviations of Social Support, Self-esteem and Loneliness for Home and Non-Home students
Differences between male and female students**

MEASURE	MEAN (SD)	DF	T-TEST	PROB.
1. Social support				
males	56.42 (5.75)			
females	57.82 (4.57)			
overall	53.30 (5.08)	265	-2.20	p < .05
2. Self-esteem				
males	88.84 (12.30)			
females	86.43 (13.25)			
overall	49.06 (11.88)	265	1.48	ns
3. Loneliness				
males	40.10 (12.14)			
females	39.04 (11.76)			
overall	39.43 (11.89)	265	.70	ns

Table 7.4 Correlations for Non-Home students only

MEASURE	1	2	3	4	5	6	7	8	9	10
1.Neuroticism	1.00									
2.Extraversion	-.22	1.00								
3.Inhibition	.41**	-.68**	1.00							
4. State Anxiety	.57**	-.20	.28**	1.00						
5. Self-esteem	-.33*	.39**	-.45**	-.66**	1.00					
6. Social Support	-.41**	.34*	-.61**	-.26	.37*	1.00				
7. Cultural Distance	.24	-.35*	.39**	.10	-.28	-.37*	1.00			
8.Loneliness	.53**	-.53**	.59**	.50**	-.49**	-.52**	.27	1.00		
9.Homesickness	.32**	-.01	.21	.27	-.10	.22	.30*	.22	1.00	

N=72 ** Significant at p<.001 * Significant at p<.01

Table 7.5 Correlations for Home students only

MEASURE	1	2	3	4	5	6	7	8	9	10
1.Neuroticism	1.00									
2.Extraversion	-.39**	1.00								
3.Inhibition	.56**	-.76**	1.00							
4. State Anxiety	.80**	-.45**	.58**	1.00						
5. Self-esteem	-.70**	-.62**	-.64**	-.79**	1.00					
6. Social Support	-.29**	-.57**	-.49**	-.36**	.44**	1.00				
7. Loneliness	.52**	-.49**	.64**	.65**	-.62**	-.56**	1.00			

N=193 ** Significant at $p < .001$ * Significant at $p < .01$

(c) Prediction of perceived Social Support and Loneliness for Home and Non-Home students

A number of hierarchical multiple regression analyses were undertaken, after cleaning of the data (checking for univariate and multivariate outliers, homoscedasticity, linearity and so on), in order to predict (a) Social Support, and (b) Loneliness. Given that home versus non-home students differed with regard to Neuroticism ($t=2.63$, $df=265$, $p < .01$) and Self-Esteem ($t=-2.48$, $df=265$, $p < .05$), and that Cultural Distance applied only to the non-home sample, separate regression analyses took place. The hierarchical multiple regression analysis included four predetermined steps: (a) first demographic variables (age, sex, marital status and decision to come to university), (b) next Cultural Distance (for the non-home students) followed by (c) Personality variables (Self-esteem, Extraversion, Neuroticism, and Social Inhibition), and finally, (d) whether students had found a good friend or not. The same procedure was followed for home students, excluding the Cultural Distance variable. A very similar procedure was followed to predict Loneliness for home and non-home students, including last the variable of perceived Social Support.

When the predicted variable was Social Support for non-home students, 43% of the variance was predicted from all the Demographic, Cultural Distance and Personality variables, with Social Inhibition ($B=-.56$, $p < .001$) being the single most significant predictor. For home students, only 26% of the variance was predicted by the Demographic and Personality correlates, with Self-Esteem ($B=.33$, $p < .05$) and Social Inhibition ($B=-.40$, $p < .001$) as the single best predictors.

When Loneliness was the predicted variable for home students, 55% of the variance was predicted by Demographic, Personality and perceived Social support variables, with Social Inhibition ($B=.30$, $p < .01$) and Self-Esteem ($B=.26$, $p < .01$) as the two most significant personality predictors, and Social Support ($B=-.29$, $p < .001$), as the single most significant predictor. For non-home students, 60% of the variance was predicted, with Extraversion

Table 7.6a Predicting perceived Social Support from Demographics and Personality for Home students

Source	Mult. R	Adj. R ²	Fchange	df	p	B
1. Demographic	.15	.00	1.15	4,188	ns	
Age						-.07
Sex						.09
Marsta						-.01
Decision						.10
2. Personality	.55	.27	17.61	8,184	<.001	
Self-Esteem						.33*
Extraversion						-.11
Neuroticism						.08
Inhibition						-.40***
3. Unifriend	.54	.26	.36	9,183	ns	-.03

Constant=91.33, F(9, 183)=7.26, p<.001

Key: Decision= Decisional control over the move to University
 Marsta= Marital Status
 Unifriend= Having developed a close relationship
 nation= nationality

Table 7.6b Predicting perceived Social Support from Demographics and Personality for Non-Home students

Source	Mul . R	Adj. R ²	Fchange	df	p	B
1. Demographic	.30	.03	1.53	4,67	ns	
Age						-.10
Sex						.17
Marsta						-.07
Decision						-.05
3. Cultural Distance	.44	.13	8.27	5,66	<.01	-.08
2. Personality	.71	.43	9.92	9,61	<.001	
Self-Esteem						.12
Extraversion						-.18
Neuroticism						-.18
Inhibition						-.56***
3. Unifriend nation	.71	.43	.29	10,61	ns	.05

Constant=115.46, F(10,61)=6.32, p<.001

Key: Decision= Decisional control over the move to University
 Marsta= Marital Status
 Unifriend= Having developed a close relationship
 nation= nationality

Table 7.7a Predicting Loneliness from Demographics, Personality and Social Support for Home students

Source	Mul R	Adj. R ²	Fchange	df	p	B
1. Demographic	.14	-.00	.92	4,188	ns	
Age						-.02
Sex						-.09
Marsta						.06
Decision						.08
2. Personality	.71	.49	46.21	8,184	<.001	
Self-Esteem						-.26**
Extraversion						.06
Neuroticism						.11
Inhibition						.31**
3. Unifriend-Social Support	.75	.55	12.54	10,182	<.001	
Social Support						-.29***
Unifriend						.04

Constant=101.62, F(12,180)=24.13, p<.001

Key: Decision= Decisional control over the move to University
 Marsta= Marital Status
 Unifriend= Having developed a close relationship
 nation= nationality

Table 7.7b Predicting Loneliness from Demographics, Personality and Social Support for Non-Home students

Source	Mul R	Adj. R ²	Fchange	df	p	B
1. Demographic	.22	.00	.85	4,69	ns	
Age						-.05
Sex						.17*
Marsta						.12
Decision						.06
2.Cultural Distance	.35	.12	6.40	4,67	<.05	-.10
2.Personality	.54	.48	14.68	8,63	<.001	
Self-Esteem						-.13
Extraversion						-.31*
Neuroticism						.28*
Inhibition						.01
3. Unifriend-Social Support	.77	.60	4.36	10,61	<.05	
Social Support						-.27*
Unifriend						.18

Constant=106.83, F(10,61)=9.27. p<.001

Key: Decision= Decisional control over the move to University
 Marsta= Marital Status
 Unifriend= Having developed a close relationship
 nation= nationality

($B = -.31$, $p < .05$) and Neuroticism ($B = .28$, $p < .05$) as the two most significant personality predictors. After all personality variables were entered in the equation, perceived Social Support accounted for very little change. All the regression analyses are summarized in tables 6 and 7.

Discussion

The study presented in this paper yielded a number of interesting findings in relation to a number of issues which are of relevance to students' psychosocial adjustment to University life.

When comparing home and non-home students 2 to 3 weeks after arrival at University, on a number of personality variables, perceived social support, state anxiety and loneliness, the only difference that transpired were the lower Neuroticism scores and higher Self-Esteem scores of the non-home students. The latter result appears to be in agreement with previous research conducted by the author which compared 244 home students with 186 non-home students six weeks prior to arrival at University, which revealed that non-home students, in comparison to home students had a higher Self-Esteem, Internal Locus of Control and a lower belief in Powerful Others (Chapter 6). The present study, albeit cross-sectional in nature, may indicate that the higher Self-Esteem scores of non-home students, in comparison to the home students, prior to University arrival are maintained at least up to the first 2-3 weeks after arrival. Although no other study has compared home versus non-home students at the early stage of their University career, shortly after transition, on measures of Neuroticism and Extraversion, the present result of lower Neuroticism among non-home students may not seem surprising given this groups relatively high Self-Esteem scores. The expanding literature suggests that non-home students in comparison to home students, experience a greater number of adjustment problems (e.g. Colaccino, 1970; Jarrahi-Zaden and Eichman, 1970; Klineberg and Hull, 1979; Huang, 1977; Nickelly, Sugita and Otis, 1964; Furnham and Bochner, 1986; Lu, 1991). However, the present study suggest that at least in the early phase of transition

the non-home students do not appear to exhibit any significant personality vulnerability factors that might predispose to poor adjustment. For example, there were no significant differences between home versus non-home students on Extraversion, Social Inhibition and perceived Social Competence, and Psychoticism. Somewhat surprisingly, no difference was found between the two groups on Homesickness. Furthermore, on measures of Neuroticism and Self-Esteem non-home students appeared more positively predisposed.

The present study indicated a strong relationship between personality variables and whether or not students had developed a new relationship during the early stages of adjustment to University life. For example, those who had established a satisfactory relationship with another student, in comparison to those who had not, were more Extravert, less Socially Inhibited, less Anxious, with higher Self-Esteem and less Lonely. These results appear to be in agreement with earlier studies on personality correlates of Social Support which have supported the relationship between Social Support and Self-Esteem (Stroede, Eagly and Stroede, 1977), and between Social Support and Neuroticism, sociability and shyness (e.g. Cheek and Buss, 1981).

Costa and McCrae (1985) in their very-well organized longitudinal study of aging investigated to what extent do stable personality predispositions continually create a stable social network and to what extent environmental consistency is responsible for the stability. In order to investigate these questions they divided their subjects into those who had moved to a new city between test administrations and those who had lived in the same city for at least ten years. The reason for making this distinction was that relocation is considered to be one of the stressful and disruptive events in one's life. The authors expected that since every move entails at least a temporary disruption of social relationships, the mean level of social support would decline for movers. Moreover, since the social opportunities provided by the new residence might be either greater or fewer than those afforded by the old residence, there would be little correlation between support before and after a move. However, despite their

expectations, the results of their study showed that a change in residence does not appear to influence the extent of social participation or friendships, possibly because these aspects of social support are quickly renewed after a move by individuals desiring them. In addition, further repeated measures analyses showed that mean levels of social support did not differ because of relocation. In fact, both movers and non-movers were virtually unchanged after six years and twelve year intervals. Costa and McCrae (1985) argued that variables such as occupation, education, social class, race, religion and ethnicity are the primary determinants of social participation. Moreover, they argue that it is likely that the characteristics of individuals high in Neuroticism make the development and the maintenance of satisfying and supportive social relationships difficult. Finally they say that 'surely something in the individuals is responsible for this lifelong pattern; and these personality traits may well account for the perceived adequacy of social support' (Costa and McCrae, 1985, pp. 150-151). The present study appears to support the notion that significant personality and well-being differences exist between those students who have established a friendly relationship early on after the transition and those who have not. However, although a significant difference was found between the two groups in Personality variables related to inhibited sociability (Extraversion, and Social Inhibition and perceived Social Competence), the difference found in Neuroticism did not reach statistical significance. However, the significant difference found in State Anxiety, indicates the presence of higher levels of Anxiety among individuals who have not yet established a friendly relationship.

However personality variables are not the sole factors which differentiate between those who do or do not establish new relationships during the early phase of University adjustment. In particular, for the non-home students those who had not developed a new relationship with another student had significantly higher scores on Cultural Distance, in comparison to those who had started a new relationship. Given that the Cultural Distance Index is a measure of the dissimilarity between the students' home culture versus the new host culture, these results suggest that the greater the disparity the more difficulty in establishing new relationships

especially during the early stages of the transition. Furthermore, since Cultural Distance correlates positively with Social Inhibition, Social Inhibition and perceived Social Competence and with Introversion, it seems reasonable to hypothesize that Cultural Distance adversely influences the individuals' perception of their ability to function socially in the new environment thereby restricting their social interactions. Such conclusions would seem in agreement with Bochner and Furnham (1986) who argued that the higher the diversity between home and host culture, the higher the difficulty of social participation in the new host culture.

However, for non-home students, the fact that Cultural Distance did not contribute significantly to the prediction of Perceived Social support and the prediction of Loneliness after all the Personality variables had entered the regression equation appear to support the primary role of personality variables in the perception of psychosocial adjustment. More specifically, for non-home students, Social Inhibition and perceived Social Competence was the single best personality predictor of Social Support. When Loneliness was the predicted variable for non-home students, Extraversion and Neuroticism were the single best predictors. The relationship between Loneliness and the major personality dimensions has been demonstrated in the past (Saklofske, 1986; Saklofske, Yackulic and Kelly, 1986), and the present results appear to be in line with earlier findings.

However, for home students there existed a slightly different picture regarding the main predictors of Loneliness and perceived Social Support. In particular, for home students, Social Inhibition and perceived Social Competence was the single best predictor of perceived Social Support, as was the case for non-home students. When Loneliness was the predicted variable, for home students, Social Inhibition and Self-Esteem were the single best personality predictors, this being different from non-home students. None of the demographic variables were significant predictors either of Social Support or of Loneliness, both for home and non-home students. Again these results appear to be in agreement with earlier studies that have

demonstrated the relationship between inhibited sociability and Loneliness (Horowitz et al., 1982; Horowitz and French, 1979), and self-esteem and Loneliness (Hojat, 1982).

In respect to gender differences, the only difference found at this stage was in Neuroticism and in perceived Social Support, with females having a higher score-in accord with Eysenck and Eysenck, (1981)- and at the same time perceiving a higher degree of Social Support than men. This may be related to the different kind of relationships that women establish, and to the different types of self-disclosure, especially in times of pressure and stress as has been argued in the past (e.g. Brewin et al, 1989). No other gender related differences were found.

The shortcomings of the present study must be noted. First, the composition of the non-home sample is heterogeneous. However, given the very small number of students from each of the 21 nationalities present in this sample, separate analyses of the nationality groups would not be valid. Thus, the analysis was based on two groups only of home and non-home students, as did Ward and Searle (1991) in their study with similar group composition. Nevertheless, the findings of the present study provide a number of suggestions for future research in this area. A number of issues require further attention such as the possibility that Personality correlates of Loneliness, Homesickness, and experienced Problems during the academic year, might be differentially related for home and non-home students. Such a possibility will have significant implications for the students' Counselling Services and the intervention approaches adopted. Moreover, the present study suggests that more research on the role of personality- and possibly cognitions and attitudes-in relation to students' psychosocial and academic Adjustment to University life might prove very fruitful. Finally, there is a need for longitudinal studies on the psychosocial Adjustment of students.

CHAPTER 8: STUDY III

**Transition to University, Homesickness and
Psychosocial Adjustment of Home and Non-Home
students: Demographic and Psychological Correlates**

Abstract: The main aim of the present study is twofold: (a) to predict psychosocial adjustment to University life of home and non-home students from a number of background, Personality and perceived Social Support variables; and (b) to identify the correlates of Homesickness for home and non-home students. A subsidiary aim is to investigate the problems that students experience. Sixty three home students and thirty two non-home students completed a questionnaire 5 months after their arrival at University, which assessed: overall pre-arrival information about life at University, previous experience of living away from home, homesickness, perceived Social Support, Loneliness and overall Adjustment to University life. The results indicated that: (a) Personality and perceived Social Support are significant predictors of overall psychosocial adjustment to University life. (b) The correlates of Homesickness were different for home and non-home students. For home students Homesickness was related to all personality variables, whereas for non-home students correlated only with the personality variables of Self-Esteem and perceived Social Inhibition . Finally, (c) Non-home students in comparison to home students experience not only the problems that home students have to face but also a number of culturally related problems. Non-home students also appear to be more homesick, and overall less well adjusted to University life. Results are discussed in relation to the relevant literature.

Introduction

During the last thirty years a great deal of research has been done on transition and change, their correlates and their consequences on psychosocial and physical well-being. For many people one of the earlier, if not the first major transition in their lives is the transition from school to university. For others, this first major transition may also include moving abroad.

Regarding the adjustment of students during the transition to University the focus has been on the adjustment of non-home students, and only during the last decade has the focus shifted to the study of home students as well. Numerous variables have been investigated: background variables such as age, sex, marital status, educational background and social class; Cultural Distance (Babiker, Cox and Miller, 1980; Furnham and Bochner, 1982; Ward and Searle, 1991); previous sojourn experience (Amir, 1969; Basu and Ames, 1970; Bochner, 1972; David, 1973); language fluency (Sewell and Davidsen, 1961; Gullahorn and Gullahorn, 1966; DiMarco, 1974) and so forth.

A number of studies have investigated the problems experienced by students. First, in the 1950's when it started to become clear that foreign students were experiencing many problems and difficulties, a great deal of research involving surveys of student samples was initiated to address the issue. According to Bochner and Furnham (1986) the most important studies of this particular period are considered to be those supported by the Social Science Research Council and published by the University of Minnesota Press, trying to identify the adjustment problems of foreign students in the United States (Bennet, Passin, McKight, 1958; Lambert and Bressler, 1956; Morris, 1960; Scott, 1956; Selltitz, Christ, Havel and Cook, 1963; Sewell and Davidsen, 1961). At the same time, research in Britain with similar objectives was beginning to emerge in a smaller scale (Carey, 1956; Singh, 1963; Tajfel and Dawson, 1965). During this early stage, difficulties with accommodation, excessive optimism and consequent disillusionment (Carey, 1956), as well as prejudice expressed from the host nationals were some of the most prevalent problems experienced by foreign students. The second wave of

publications consisted a large number of reports and bibliographies reviewing the problems foreign students may experience (Parker, 1965; Shields, 1968). The main criticism of all these reports and studies was that most of them were simply reporting a number of problems and difficulties experienced by foreign students, without any conscious effort to put them in a theoretical context (Bochner and Furnham, 1986).

The other very important point, as discussed by Church (1982) was the extent to which foreign students were experiencing unique or more severe problems than those experienced by home students (Blegen, 1950; Klein et al, 1971; Klinger, 1967; Otis, 1955). However, very few studies included a control host group, thereby presenting direct comparison of the nature and degree of adjustment problems of home and foreign students (Walton, 1968). The few survey studies that did directly compare the two groups tended to find differences between foreign and host students in values (Klinger, 1961; Singh Huang and Thomson, 1962), and in the extent to which certain adjustment problems were experienced (e.g. Colaccino, 1970; Jarrahi-Zaden and Eichman, 1970).

During the third wave of research a more theoretical approach was adopted, viewing the problems experienced by students within the theoretical context of the concept of 'culture shock', which is 'precipitated by the anxiety that results from losing all familiar signs and symbols of social intercourse' (Oberg, 1960, pp. 177). The reported 'symptoms' of this 'occupational disease' as it was called, suffered by people who are introduced suddenly to a culture that is very different from their own (Oberg, 1960; Church, 1982), include a number of psychosomatic and psychosocial problems such as depression, anxiety, strain, helplessness, excessive fear, irritability (Oberg, 1960; Lundstedt, 1963; Gullahorn and Gullahorn, 1963; Foster, 1962; Adler, 1975), and even loss of appetite, poor sleep and vague physical complaints (Guthrie, 1966, 1975).

In Britain, there are a number of studies on particular student groups such as the studies by

Lambo (1960), Anumonye (1970) and Noudehou (1970) on African Students; by Singh (1963), Eldridge (1960) and Still (1961) on overseas students; by Furnham and Trezise (1981) on African, European, middle Easterners, Malaysians and British; by Lu (1990; 1991) on Chinese students compared with British students; and finally by Klineberg and Hull (1979) as part of their large scale international longitudinal study. In the latter study which included foreign students in 11 countries worldwide, foreign students in Britain were the most likely of all the samples to say that they had received fair or adequate information before arrival; the most likely to say that they were satisfied with academic experience and well above average with regard to their general and social experience; they were second to last in frequency of complaints regarding lack of a private place to study, problems with examinations, language and finances and third to last in reporting lack of contact with local students and lack of facilities for recreation. Their most troublesome problems were finances and depressed mood. In the 15 years since Klineberg and Hulls' (1979) study, very few studies have investigated the problems foreign students experience in Britain today, although quite a number of theoretical papers have been published on this issue (e.g. Cox, 1988; Khoo et al, 1994). A question that remains unanswered is the basic question of 'which are the major sources of strain for home and non-home students today'?

Furthermore, regarding the factors associated with successful or poor adjustment Klineberg and Hull (1979) reported that overall the factors that were most important with regard to the students' coping process at the foreign University were: (a) social contact with those local to the sojourn culture and area and, (b) prior foreign experience of travelling. Nowadays traveling/ working/ studying/ living abroad has become possibly much easier and much more common than what it was 15 years ago. The question therefore arises as to whether is still previous experience a decisive factor in the successful adjustment of students during transition to University life?

Another point of particular interest is the finding of an earlier study by the present authors

which compared 186 non-home students versus 244 home students, showing that non-home students, in comparison to home students lack substantial information and knowledge about several aspects of social and academic life in the host country (Chapter 6). For example, this latter paper showed that the majority of non-home students had little or no knowledge regarding the academic standards of the University to which would attend. Such issues have not been adequately investigated before despite the fact that the effect of such a lack of information on the students' eventual adjustment to University life might be significant.

Klineberg and Hull (1979) close their conclusions of their well-organized longitudinal study with the suggestion that more research is needed on basic personality factors that may relate to many of their findings. Moreover, recent trends and findings in the area seem to focus on this direction. More specifically, recent findings of research on Social Support (e.g. Sarason et al, 1985; Costa and McCrae, 1985), Happiness (Veroff, Feld, and Gurin, 1962; Costa and McCrae, 1980; Veenhoven, 1991; Headey et al, 1985; Lewinsohn, Redner and Seeley, 1991), Loneliness (e.g. Horowitz et al, 1979; Jones, Freeman and Goswick, 1981; Vaux, 1988; Saklofske and Yackulic, 1989; Saklofske, Yackulic and Kelly, 1986; Peplau et al, 1982; 1985; 1987) and Personality (e.g. Watson and Clark, 1984; Watson et al. 1985; 1988; 1989; Stokes et al., 1989; 1990) appear to support strongly the link between Personality and psychosocial adjustment /well-being. Taking these suggestions into consideration it is reasonable to hypothesize that the same major personality factors may influence the subjective evaluation of the new social network as supportive, and the overall experience of the academic sojourn as satisfactory and successful, during the transition to University.

It is in fact surprising that despite the large number of variables that have been investigated over the years, personality factors have received so relatively little attention in relation to the students' psychosocial and academic Adjustment to University life. Initial studies focused on the authoritarian personality (Adorno, 1950; Mischel, 1965; Basu and Ames, 1970; Chang, 1973). Later on, a number of researchers tried to identify the potentially 'good adjuster'

1973). Later on, a number of researchers tried to identify the potentially 'good adjuster' (Gardner, 1962; Adler, 1977; Bochner, 1970, 1972) focusing on increased personal flexibility (Gullahorn and Gullahorn, 1962; Sewell and Davidsen, 1961); increased sociability and assertiveness (Antler, 1970), realistic goals and expectations (Carey, 1956; DuBois, 1956; Klineberg, 1970). During the last fifteen years the focus of research on the adjustment of home students has shifted towards a number of personality vulnerability factors such as Anxiety, Cognitive Failure and Perceived Demand (Fisher et al, 198; Lu, 1990), Neuroticism and Extraversion (Hojat,1982; Ward and Searle, 1991; Lu, 1990, 1994), Social Skills (Shaver et al., 1986; Riggio et al. 1993), Cognitive Attributions (Cutrona, 1982), Trait Anxiety (Chataway and Berry, 1989) and so on. However, no study to our knowledge has investigated major personality correlates (Neuroticism, Extraversion, Social Inhibition and perceived Social Competence, Self-Esteem, Interpersonal Trust) in relation to several adjustment indices of University life (Social Support, Loneliness, number of problems experienced and Homesickness), both for home and non-home students.

Furthermore, although a few studies can be found that have attempted to investigate demographic, personality and situational correlates of Homesickness (e.g. Fisher et al., 1985, 1987, 1988; Brewin et al., 1989) there are no studies, to our knowledge, that have studied the two major personality dimensions of Neuroticism and Extraversion as correlates of Homesickness. In addition, no studies seem to exist that have investigated the possibility that correlates of Homesickness might differ significantly for home and non-home students.

The present study is an attempt to rectify some of the above problems. A preliminary aim of the present study is to compare the psychosocial adjustment to University life of: (a) home versus non-home students, (b) those who have versus those who do not have adequate information about social and academic aspects of life before University attendance, (c) those who have versus those who do not have experience of living/studying away from home, and finally (d) those who feel that life at University did or did not meet their pre-attendance

expectations. The main aim of the study was to predict successful adjustment to University life of home and non-home students from a number of Background variables (i.e. age, sex, marital status, previous experience of traveling), Personality variables (Neuroticism, Extraversion, Interpersonal Trust, Self-Esteem, and Social Inhibition and perceived Social Competence), and Social Support. In other words, the main question is: which are the students, home and non-home, who are more likely to adapt successfully to University life?

Procedure

200 sets of questionnaires were distributed personally to first year Postgraduate and Undergraduate students, who were staying in University accommodation, during the last two weeks of February, two weeks after the start of the second, spring semester. This time for administering the questionnaire was decided, given: (a) the fact that adequate time has elapsed since the students' arrival at University (approximately 5 months), so that students had time to develop a new social network, to experience and to cope with problems and to develop a fairly good idea about their overall adjustment; and (b) the fact that the time point of administering the questionnaire was not very close to examinations, which might affect the results. 98 sets were returned. 3 sets were discarded for extensively missing data (more than 10%), leaving a final sample of 95 students (response rate:47.5%). The response rate was much higher than the average 30% of postal surveys reported by Shaughnessy and Zechmeister (1985), and compared favourably with the 42% response rate of the similar study by Ward and Searle (1991). A cover letter was distributed together with the questionnaires to inform the students about the objectives of the study, and to assure them for the strict confidential treatment of their responses. The questionnaire was anonymous, and the students' participation was voluntary. No course credit or any payment were given for participation. Students were asked to complete the questionnaire, and to return it in the addressed envelope enclosed within the next week.

Subjects

The final sample consisted of 63 (66.3%) home students, and 32 (33.7%) non-home students. 44 were males (46.3%), and 49 were females (51.6%). The sample's average age was 25.5 years old ($SD=7.22$). Most of the students were single ($n=89$, 93.7%), with 4 (4.2%) married students and 1 (1.1%) divorced student. The majority of the students took the decision to come to the University themselves ($n=86$, 90.5%), while for one student only the decision was taken by his family, and for 7 (7.3%) students (from which 6 were non-home students) the decision was taken by their financial supporter/ employer.

Measures

The questionnaire consisted of two parts: (a) a general information and personal details form and, (b) a number of standardized and valid personality, social support and well-being questionnaires. In the first part of the questionnaire, data concerning gender, age, nationality, marital status, and year of studies were collected from all subjects by means of a self-report personal details form. In addition, a number of questions were included concerning:

- (a) who took the decision for the student to attend University (1 item, including 'myself', 'family', 'financial supporter', 'home University', 'other');
- (b) how well-informed students think they were regarding academic and social aspects of life at University (1 item, dichotomous: 'very well/well-informed', and 'not well/not at all informed');
- (c) homesickness (2 items, measuring frequency and intensity of experienced homesickness, each on a 5-point likert scale);
- (d) expectations of life at University (1 item, regarding whether students feel that reality of life at University has met their expectations prior to arrival, in a yes-no format);
- (e) satisfaction with family, friends, and partner (3 items; e.g. how satisfied are you with your relationship with family, friends and girlfriend/boyfriend/spouse; on a 5-point scale ranging from 'very satisfied' to not at all satisfied');
- (f) problems experienced during the previous University term (a list with 16 items, referring

to personal, social and academic problems experienced during the last term at University; e.g. problems with accommodation, lack of academic counselling and guidance, lack of cooperation with fellow students, lack of a person to feel close to, lack of adequate previous training, prejudice etc; each item was in a yes-no format and it was based on a similar problem scale used by Klineberg and Hull (1979).

The second part consisted of a number of standardized and widely used scales measuring a number of Personality variables, Social Support and Psychosocial Adjustment to University life. In the present study two standardized measures were used as indices of Psychosocial Adjustment to University life: (a) a measure of subjective satisfaction with several social and academic aspects of University life (Crombag, 1968; van Rooijen, 1985), and (b) a measure of Loneliness (Russell, Peplau, and Cutrona 1980), following Cutrona (1982), Shaver et al (1986), Jones and Moore (1989). It is important to underly that these variables are not measuring the same construct, neither they are synonymous; they are rather complementary dimensions of overall adjustment (Folkman, et al, 1985; Cutrona, 1982; Chataway and Berry, 1989). All the measures used were as follows:

(a) Extraversion, Neuroticism, Psychoticism and Lie scale

(Eysenck and Eysenck, EPQ-R, 1981)

The Eysenck and Eysenck EPQ-R (1981) has been used in this study (the 48-item, short version scale) because it is valid, standardised and is the most widely used instrument measuring Introversion-Extraversion, Neuroticism and Psychoticism. The internal reliability for the present study were .91, .92, and .87 for Extraversion, Neuroticism and Psychoticism respectively.

(b) Social Inhibition and Perceived Social competence

(L.Horowitz and R. de Sales French, 1979; Adams, Opensaw, Bennion, Mills and Noble, 1988)

This is a 14-item scale which was used here to measure Social Inhibition and Perceived Social competence. The first 12 items are in a 'Yes-No' statement format (eg. 'I find it hard to make friends in a simple, natural way'), and the last two consist of two statements each. The items were first designed by Horowitz and deSales French (1979), and they were operationalized into a measure by Adams et al (1988), to be used in their study on loneliness in late adolescence. They reported a split-half reliability of $r=.84$, and a coefficient alpha of $.81$. The reason for choosing this scale in this study is the face validity of the scale, the simplicity of the language and the short length of the measure. The internal reliability for the present study was $\alpha=.91$.

(c) Interpersonal Trust (Rotter, 1967; 1980)

Interpersonal Trust was measured with a substantially shortened version of Rotter's (1980) Interpersonal Trust Scale. Subjects responded on a 5-point Likert scale about the extent to which they agreed or disagreed with 8 statements. The original scale (1967) included 25 items measuring trust and 15 filler items. It was reported to have a good test-retest reliability, good construct validity and a split-half reliability of $r=.76$, $p < .001$. The shortened form which was used in the present study, was used by Folkman, Lazarus, Gruen and DeLongis, (1986). The internal reliability for the present study was $.92$.

(d) Self-esteem (Hudson, 1982)

The Index of Self-esteem (ISE, Hudson, 1982) is a 25 item, self-report questionnaire designed to assess the degree or magnitude of a problem that a person has in the area of self-esteem. All items are in statement format. Respondents are required to rate each item-statement from 'rarely or none of the time' to 'most or all of the time', on a 1 to 5 scale. For the purposes of the present study, the scoring system was in the direction of high self-esteem, with higher scores indicating a higher degree of self-esteem.

The ISE is internally consistent ($\alpha=.93$), has good test-retest reliability ($r=.92$), and has

good known groups validity ($r = .52$). The internal reliability for the present study was .91.

(e) Global Social Support (Cohen et al., 1985)

Global Social Support was assessed using the student form of the Interpersonal Support Evaluation List (ISEL, Cohen et colleagues, 1985). The ISEL consists of 48 items in the statement format, concerning the perceived availability of social support resources. The items are counterbalanced for desirability. Items were developed on theoretical grounds to cover the domain of socially supportive elements of relationships which students might be expected to experience (Cohen and Hoberman, 1983).

It has 4 sub-scales of twelve item statements each, and each sub-scale is constructed to measure a different element of Social Support. The four sub-scales refer to the following elements: (a) Appraisal support, (b) Belonging Support, (c) Tangible Support, and finally, (d) Esteem Support. For the present study, only the first three subscales were used because many items of the last subscale seem to overlap with the Self-esteem Index.

Respondents indicate whether each statement is probably true or false for themselves, at the time of administering the questionnaire. The ISEL is scored by counting the number of responses indicating support for each of the four sub-scales. An overall index can be calculated by summing up the support scores across the four sub-scales. Reported internal reliabilities range from .88 (alpha coeff.) to .90 for the general population form of the ISEL. It also has a good test-retest reliability (.70) over a six-week interval for the overall score and the four subscales scores (Cohen, Kamarck, Mermelstein and Hoberman, 1985). The internal reliability for the present study was .92.

(e) Loneliness (Russel, Peplau and Cutrona, 1980)

Although there is a number of scales available for measuring Loneliness, the R-UCLA scale is the most widely used (Russel, Peplau and Cutrona, 1980). It has a high internal consistency

(alpha = .94) and a number of studies indicate good concurrent and discriminant validity. The R-UCLA loneliness scale consists of twenty items in a statement format. Subjects indicate how often they feel the way described in each of the statements, and the answers range from 'never' to 'often'. All items are counterbalanced for Social Desirability. The overall score is calculated by adding each item's scores after reversing the positive items, so that the higher the overall score, the higher the degree of the experienced Loneliness. The internal reliability for the presents study was .96.

(g) Adaptation to University Life (Crombag,H. 1968; Van Rooijen, 1986)

The College Adaptation Questionnaire (CAQ), constructed by Crombag (1968) to assess how well students have adjusted to University life, is a self-report instrument consisting of 18 statements. Respondents indicate on a seven point rating scale how well each statement applies to them. Eight statements indicate good adjustment and ten statements indicate the lack of it. The total score for adjustment is the sum of the item scores, after having reflected the items which indicate a poor adaptation. The scale does not correlate with social desirability response tendencies. The internal reliability for the present study was .89.

Data Analysis

Home and non-home students were compared in respect of personality variables, problems reported, perceived social support, and psychosocial adjustment to University life using chi-square tests and independent t-tests where appropriate. Students with a great deal and little/not at all pre-University attendance information first, and previous experience of living studying away from home next, were compared in respect of psychosocial adjustment to University life, using t-tests. Further, three groups were formed of 'high', 'moderate' and 'low' levels of Loneliness and overall psychosocial adjustment, and were compared in respect of personality variables, using a oneway analysis of variance. Investigation of the relation between variables were examined by means of Pearson correlations. Finally, hierarchical multiple regression analysis was used to investigate the relative contribution of demographic,

personality and social support variables to the prediction of the dependent variables.

RESULTS

In response to how often students experience homesickness in the previous academic term the replies were as follows: 24.2% (n=28) and 22.1% (n=21) of the students reported that they experience homesickness rarely or never respectively, during the last term, and a similar percentage of 24.2% (n=28) and 24.2% (n=23) reported that they experience homesickness rarely or never at the time of answering the questionnaire. 30.5% (n=29) reported that they experience homesickness 'sometimes' during the last term, and 26.3% (n=25) recently. Finally, 23.1% (n=22) and 20% (n=19) of the students reported experiencing homesickness often/very often during the last term and recently.

When the students were asked whether they were feeling that they had received adequate information about life at the University, prior to their arrival, 53.7% (n=51) of the students said that they had not. Finally, when they were asked whether they felt that reality was consistent with their expectations prior to their coming at the University, 66.3% (n=63) said 'yes', while 33.7% (n=32) reported being rather 'disappointed by reality'.

In respect to the problems experienced during the first semester, the problems which were most frequently mentioned were equally 'financial difficulties' and 'loneliness' (32.6%, n=31). The next three most frequent emotional problems were 'depressed mood' and 'homesickness' (30.5%, n=29), and 'lack of meaningful contact with people' (23.2%, n=22). 'Lack of framework and guidance in academic studies' (28.4%, n=27) and 'difficulty of the course' (20%, n=19) were two frequently mentioned academically-related problems. Another problem mentioned was 'lack of personal counselling' (15.8%, n=15). Finally, other problems that were noted were problems related to the climate (14.6%, n=14) and food (9.5%, n=9), as well as difficulties with the use of the language (12.6%, n=12). A rather small number of students reported 'problems related to religion', and 'racial/national

discrimination and prejudice' (12.6%, n=12).

The means and standard deviations for all the standardized personality, social support and adjustment measures, as well as the results from the t-tests between male and female students are summarized in tables 1 and 2. No differences between male and female students were found in any of the Personality measures. No differences were also found in Self-Esteem, Loneliness, general Adjustment to University life, or in the overall number of problems reported and in experienced Homesickness. The only significant difference between males and females found was in perceived Social Support ($t=-2.14$, $df=91$, $p<.05$), with females having a higher average score than men. Furthermore, chi-square tests showed no gender differences in respect to the individual problems reported.

1.(a) Differences between Home and Non-home students

A comparison between the problems experienced by home and non-home students using a chi-square test showed that non-home students were more likely to have experienced financial problems ($\chi^2=6.84$, $p<.01$), problems with the climate ($\chi^2=19.36$, $p<.001$) and the local food ($\chi^2=8.18$, $p<.01$), as well as with the use of language ($\chi^2=8.82$, $p<.01$). They also were more likely to report more difficulties with their academic course ($\chi^2=5.93$, $p<.05$) and finally, more likely to report not being happy with the support from and cooperation with fellow students ($\chi^2=11.97$, $p<.001$) (Table 3).

Comparison between home versus non-home students, as illustrated in table 4, revealed no significant differences on the various questionnaire scales and subscales, including Social Inhibition and perceived Social Competence ($t=.84$, $df=93$, ns), Neuroticism ($t=.62$, $df=93$, ns), Extraversion ($t=-.55$, $df=93$, ns), Psychoticism ($t=-.29$, $df=93$, ns), Interpersonal Trust ($t=-.74$, $df=93$, ns), and Self-Esteem ($t=-1.33$, $df=93$, ns). Moreover, no significant differences were found between home and non-home students in regard to perceived Social Support ($t=1.33$, $df=93$, ns) and Loneliness ($t=-.13$, $df=93$, ns). However, non-home

Table 8.1 Means and Standard Deviations of Personality variables, for Home and Non-Home students; Differences between males (n=45) and females (n=50)

MEASURE	MEAN (SD)	DF	T-TEST	P
1. Neuroticism				
males	6.45 (3.73)			
females	6.42(3.41)			
overall	6.43 (3.47)	df=93	t=.04	ns
2. Extraversion				
males	6.34 (3.08)			
females	6.93 (3.01)			
overall	6.72 (3.04)	df=93	t=-.94	ns
3. Psychoticism				
males	3.38 (1.75)			
females	3.02(1.47)			
overall	3.15 (1.52)	df=93	t=1.09	ns
4. Lie scale				
males	4.18 (2.81)			
females	4.65 (3.17)			
overall	4.47 (3.02)	df=93	t=-.75	ns
5. Social inhibition				
males	17.90 (4.52)			
females	16.87 (3.84)			
overall	17.41 (4.16)	df=93	t=1.19	ns
6. Interpersonal mistrust				
males	9.61 (2.26)			
females	8.85 (2.15)			
overall	9.23 (2.21)	df=93	t=1.65	ns

Table 8.2 Means and Standard Deviations for Social Support and Psychosocial Adjustment Measures for Home and Non-Home students; Differences between males (n=45) and female (n=50) students

MEASURE	MEAN (SD)	DF	T-TEST	P
1. Social support				
males	52.36 (7.93)			
females	55.51 (6.23)			
overall	54.05 (7.15)	df=93	t=-2.14	p<.05
2. Self-esteem				
males	84.50 (15.24)			
females	87.44 (13.57)			
overall	85.98 (14.29)	df=93	t=-.99	ns
3. Loneliness				
males	44.29 (16.24)			
females	40.51 (15.36)			
overall	42.40 (15.69)	df=93	t=1.15	ns
4. Adaptation to the University life				
males	83.34 (20.51)			
females	89.97 (19.67)			
overall	86.62 (20.08)	df=93	t=-1.59	ns
5. No of problems				
males	2.90 (2.70)			
females	2.40 (2.46)			
overall	2.68 (2.57)	df=93	t=.93	ns
6. Homesickness				
males	4.84 (2.20)			
females	5.16 (1.88)			
overall	5.07 (2.06)	df=91	t=-.76	ns

Table 8.3 Problems reported by Home (n=63) and Non-Home (n=32) students during the first semester

Problems experienced during the last term	N (%)	Home	Non-Home	χ^2 (df=1)	p
1.Financial difficulties	31 (32.6%)	10 (15.6%)	13 (41.3%)	6.84	< .01
2.Climate	14 (14.6%)	2 (3.2%)	12 (37.5%)	19.36	< .001
3.Food	9 (9.5%)	2 (3.2%)	7 (21.9%)	8.18	< .01
4.Difficulties with the language	12 (12.6%)	2 (3.2%)	10 (31.3%)	8.82	< .01
5.Lack of opportunities using the language	7 (7.4%)	1 (1.6%)	6 (18.8%)	8.82	< .01
6.Religion	6 (6.3%)	4 (6.3%)	2 (6.4%)	.03	ns
7.Racial/ National discrimination and prejudice	12 (12.6%)	4 (6.3%)	8 (25%)	4.23	ns
8.Lack of framework and guidance in academic studies	27 (28.4%)	15 (23.8%)	12 (37.5%)	.75	ns
9.Lack of personal counseling	15 (15.8%)	9 (14.3%)	6 (18.8%)	.31	ns
10.Difficulty of the course	19 (20%)	8 (12.7%)	11 (34.4%)	5.93	< .05
11.Lack of support and cooperation with fellow students	13 (13.7%)	3 (4.8%)	10 (31.3%)	11.97	< .001
12.Insufficient previous training	8 (8.4%)	5 (7.9%)	3 (9.4%)	.56	ns
13.Lack of meaningful contact with people	22 (23.2%)	13 (20.9%)	9 (28.1%)	.66	ns
14.Depression / Homesickness	29 (30.5%)	18 (28.6%)	11 (34.4%)	.33	ns
15.Loneliness	31 (32.6%)	30 (47.5%)	14 (43.8%)	2.66	ns

Table 8.4 Personality Differences between Home (63) and Non-Home (32) students

MEASURE	MEAN(SD)	DF	T-TEST	P
1.Social Inhibition				
Home	17.66 (4.55)			
N-Home	16.90 (3.26)	df=93	t=.84	ns
2.Interpersonal Mistrust				
Home	9.11 (2.00)			
N-Home	9.46 (2.57)	df=93	t=-.74	ns
3.General Satisfaction				
Home	12.14 (3.19)			
N-Home	11.50 (2.57)	df=93	t=-.99	ns
4. Neuroticism				
Home	6.60 (3.64)			
N-Home	6.12 (3.39)	df=93	t=.62	ns
5. Extraversion				
Home	6.50 (3.21)			
N-Home	6.87 (2.70)	df=93	t=-.55	ns
6.Psychoticism				
Home	3.20 1.77)			
N-Home	3.31 (1.46)	df=93	t=-.29	ns

students in comparison to home students reported a significantly higher number of problems ($t=-3.58$, $df=93$, $p<.001$), and a higher level of experienced Homesickness ($t=-4.34$, $df=93$, $p<.001$). Finally, non-home students were less well adjusted to University life overall than home students ($t=2.77$, $df=93$, $p<.01$).

(b) Differences between 'information' groups

Despite what one might have expected, comparisons between the group of students who said that they felt that they did not have adequate information before coming to the University ($n=51$), and the group who said that they did have adequate information ($n=44$), showed no differences at all in respect to Self-Esteem ($t=.105$, $df=93$, ns), Homesickness ($t=-1.22$, $df=93$, ns), Loneliness ($t=-.71$, $df=93$, ns) or Adjustment to University life ($t=.70$, $df=93$, ns).

(c) Differences between 'experience groups'

A comparison between the group of students who reported having a great deal of previous experience living/working/studying away from home and the group of students who reported having little/not at all experience showed no significant differences between the two groups including Self-Esteem ($t=.77$, $df=93$, ns), perceived Social Support ($t=.122$, $df=93$, ns), Loneliness ($t=-.85$, $df=93$, ns) and overall Adjustment to University life ($t=1.11$, $df=93$, ns).

(d) Differences between 'Expectation' groups

A comparison between the two groups of students who said that 'reality at University did or did not meet their Expectations prior to arrival' showed that students who had reported being disappointed with reality were experiencing a higher number of problems ($t=3.28$, $df=93$, $p<.001$), were more homesick ($t=3.14$, $df=93$, $p<.001$), and were less-well adjusted to University life ($t=3.68$, $df=93$, $p<.001$) than students who were not disappointed by reality at the University. Further t-tests to investigate for possible personality differences

Table 8.5 Correlations for Home and Non-Home students

MEASURE	1	2	3	4	5	6	7	8	9	10
1.Neuroticism	1.00									
2.Extraversion	-.23	1.00								
3.Inhibition	.60**	-.67**	1.00							
4. Mistrust	.41**	-.33*	.43**	1.00						
5. Self-esteem	-.62**	.49**	-.75**	-.40**	1.00					
6. Social Support	-.47**	.44**	-.70**	-.47**	.63**	1.00				
7. Adaptation to Uni.	-.56**	.21	-.52**	-.51**	.54**	.61**	1.00			
8.Loneliness	.67**	-.46**	.70**	.53**	-.74**	-.75**	-.69**	1.00		
9.Homesickness	.34**	-.20	.28*	.37**	.37**	-.29*	-.58**	.37**	1.00	
10.Problems	.32*	-.13	.27*	.37**	-.22	-.45**	-.50**	.46**	.49**	1.00

N=95 ** Significant at p<.001 * Significant at p<.01

showed that students who were dissatisfied by reality had higher scores in Neuroticism ($t = -3.21$, $df = 122$, $p < .01$), lower scores in Extraversion ($t = 2.60$, $df = 122$, $p < .01$) and lower scores in Self-esteem ($t = 2.82$, $df = 105$, $p < .01$). No differences were found in respect to Interpersonal Mistrust, or to whether they had adequate information prior to coming to the University.

2. Relationships between variables

A number of high order significant correlations were found, when the correlations were calculated for the whole group (Table 5). More specifically:

Neuroticism was found to correlate quite significantly with a number of personality, social support and adjustment variables. One of the most interesting was the very high positive correlation between Neuroticism and perceived Social Inhibition (.60, $p < .001$) and Interpersonal Mistrust (.41, $p < .001$), and the high negative relationship with Self-esteem (-.62, $p < .001$). Thus, students with a high score in Neuroticism, were also more socially inhibited and they had a more negative perception of self. Finally, Neuroticism correlated positively with the number of problems reported (.33, $p < .01$), with Loneliness (.68, $p < .001$), and with Homesickness (.35, $p < .001$), and negatively with Social Support (-.47, $p < .001$), as well as with overall Adjustment to University life (-.55, $p < .01$).

Homesickness correlated positively with Social Inhibition (.28, $p < .01$), Neuroticism (.34, $p < .001$), Interpersonal Mistrust (.37, $p < .001$), and Loneliness (.37, $p < .001$), and negatively with Social support (-.29, $p < .01$), and overall Adjustment to University life (-.57, $p < .001$). Thus, those students who were experiencing a high level of Homesickness were also more anxious and emotionally unstable, more socially inhibited, more mistrustful to others, less socially supported while at University, more lonely and finally, overall less well-adjusted to university life. When correlations were computed for home students only ($n = 63$), Homesickness correlated with Neuroticism (.47, $p < .001$), Self-esteem (-.38, $p < .01$) and Social Inhibition (.33, $p < .01$), as well as with Interpersonal Mistrust (.36, $p < .01$).

Homesickness also correlated with Loneliness (.36, $p < .01$), with the number of Problems experienced (.49, $p < .001$) and finally with overall Adjustment to University (-.43, $p < .001$). However, when correlations were computed for non-home students only ($n=32$), Homesickness was independent of all the personality variables except with Social Inhibition (.45, $p < .01$) and Self-Esteem (-.45, $p < .01$). It also correlated positively with Loneliness (.47, $p < .01$) and quite highly negatively with overall Adjustment to University life (-.68, $p < .001$). Thus, when comparing home and non-home students, different patterns of relationship between homesickness and the other variables exist. For example, for home students homesickness correlated with all the personality variables and psychosocial adjustment to University life. However, for non-home students homesickness correlated significantly with only Social Inhibition and perceived Social Competence, Self-Esteem and highly significantly with Psychosocial Adjustment to University life (Tables 6 and 7).

The number of Problems reported related positively to Social Inhibition (.27, $p < .01$), Loneliness (.46, $p < .001$), Interpersonal Mistrust (.37, $p < .001$), and Homesickness (.49, $p < .001$) and negatively to Social Support (-.45, $p < .001$), and Adjustment to University (-.50, $p < .001$). However, some differences were found when correlations were computed for home and non-home students separately. Although for home students the number of Problems reported was significantly related to personality and psychosocial adjustment variables (i.e. to Neuroticism (.49, $p < .001$), Social Inhibition and perceived Social Competence (.32, $p < .01$), Interpersonal Trust (.39, $p < .01$), overall satisfaction with relationships (-.40, $p < .01$), Loneliness (-.57, $p < .001$) and overall Adjustment to University life (-.57, $p < .001$), for non-home students homesickness was only related to Social Inhibition (.45, $p < .01$) and Self-Esteem (.45, $p < .01$), and highly significantly related to overall Adjustment to University life (-.50, $p < .01$).

Finally, overall Adjustment to University life correlated positively with Self-Esteem (.54, $p < .001$) and Social Support (.61, $p < .001$), and negatively with Neuroticism (-.55,

Table 8.6 Correlations for Home students only

MEASURE	1	2	3	4	5	6	7	8	9	10
1Neuroticism	1.00									
2Extraversion	-.23	1.00								
3Inhibition	.62**	-.67**	1.00							
4Mistrust	.45**	-.40*	.47**	1.00						
5Self-esteem	-.69**	.48**	-.82**	-.49**	1.00					
6Social Support	-.54**	.46**	-.77**	-.50**	.71**	1.00				
7Adaptation to Uni.	-.64**	.23	-.64**	-.41**	.71**	.58**	1.00			
8Loneliness	.66**	-.48**	.69**	.57**	-.78**	-.78**	-.72**	1.00		
9Homesickness	.47**	-.27	.33*	.36*	-.38**	-.21	-.43**	.36*	1.00	
10Problems	.49**	-.15	.32*	.39*	-.46**	-.46**	-.57**	.57**	.49**	1.

N=63 ** Significant at p<.001 * Significant at p<.01

Table 8.7 Correlations for Non-Home students only

MEASURE	1	2	3	4	5	6	7	8	9	10
1Neuroticism	1.00									
2Extravers.	-.26	1.00								
3Inhibition	.55**	-.69**	1.00							
4Trust	.37	-.21	.42	1.00						
5Self-esteem	-.46*	.61**	-.56**	-.30	1.00					
6Social Support	-.40	.44	-.67**	-.43	.57**	1.00				
7Adaptation to Uni.	-.51*	.20	-.43	-.66**	.42	.48*	1.00			
8Loneliness	.73**	-.46**	.69**	.47*	-.73**	-.70**	-.70**	1.00		
9Homesick.	.35	-.20	.45*	.39	-.45*	-.33	-.68**	.47*	1.00	
10Problems	.23	-.16	.40	.42	-.27	-.42	-.50**	.41	.32	1.

N=32 ** Significant at p<.001 * Significant at p<.01

$p < .001$), Homesickness (-.58, $p < .001$), Social Inhibition (-.52, $p < .001$), number of Problems experienced (-.46, $p < .001$), and finally with Loneliness (-.69, $p < .001$). Thus, students who were more poorly adjusted to University life were also more anxious and emotionally unstable, more socially inhibited, more homesick, with a higher number of reported problems, and finally, more lonely than students who were better adjusted to University life. These results are further investigated with the following analysis.

3. Differences between three groups of loneliness and overall adjustment

ONEWAY analysis of variance revealed a number of significant differences among three groups of students with 'low' (< 27), 'intermediate' ($28 < > 56$) and 'high' loneliness. The groups were determined by selecting the top and bottom 27% and the middle 46% of the scores, according to the same procedure as adopted by Saclofske and Yackulic (1988). Differences between low, intermediate and high lonely groups were found in all the personality measures, except in Psychoticism ($F(2,92) = 1.03$, ns) and Lie score ($F(2,92) = 2.38$, ns). 'High' lonely students were significantly more anxious and emotionally unstable, more introverted, more socially inhibited, with a more negative perception of self than the other two groups of students. In addition, high 'lonely' students were more homesick, less socially supported, and finally they were less well-adjusted to University life than non-lonely students. Finally, division of the sample into three groups of low, intermediate and high overall Adjustment to University life, according to the same procedure as above, produced a very similar pattern of results as regards Neuroticism, Psychoticism etc. However, in this case, the three groups did not differ as regards Extraversion. The results from the ONEWAY analysis of variance are summarized in tables 8 and 9.

Table 8.8 ONEWAY analysis of variance for three levels of Loneliness

MEASURE	Group 1	Group 2	Group 3	F-VALUE	p	GROUPS
1.Neuroticism	4.12	6.38	9.89	F (2,93)=19.65	<.001	1-2, 1-3, 2-3
2.Extravers.	9.08	6.73	4.36	F (2,93)=9.02	<.001	1-2, 1-3, 2-3
4.Self-esteem	97.41	86.17	70.05	F (2,93)=33.14	<.001	1-2, 1-3, 2-3
5.Social Inhibition	14.70	16.88	22.26	F (2,93)=29.60	<.001	1-2, 1-3, 2-3
6.Homesickns.	4.00	5.01	6.58	F (2,93)=9.83	<.001	1-2, 1-3, 2-3
7. Social Support	26.79	23.58	12.00	F (2,93)=52.92	<.001	1-2, 1-3, 2-3

Group I: Loneliness < 27

Group II : 28 < loneliness < 56

Group III :loneliness > 57

Groups significantly different at .05

Table 8.9 ONEWAY analysis of variance for three levels of overall Adjustment to University

MEASURE	Group 1	Group 2	Group 3	F-VALUE	P	GROUPS
1. Neuroticism	4.15	6.38	9.76	F (2,93)=14.12	<.001	1-2, 1-3, 2-3
2. Social Inhibition	14.98	15.67	21.18	F (2,93)=20.99	<.001	1-2, 1-3, 2-3
3. Self-esteem	95.34	82.19	69.87	F (2,93)=21.15	<.001	1-2, 1-3, 2-3
4. Homesickness	4.32	5.04	6.23	F (2,93)=15.98	<.001	1-2, 1-3, 2-3

Group I : Adjustment > 105

Group II : 67 < Adjustment < 105

Group II : Adjustment < 66

Groups significantly different at .05

Table 9.2: Personality, Social Support and Well Being differences between students with and without a new friendly relationship since arrival at University

Measure	Group I	Group II	t-test	df	p
1. Neuroticism	5.18 (3.22)	5.65 (2.34)	-.61	121	ns
2. Extraversion	8.05 (3.19)	5.70 (3.45)	2.99	121	<.01
3. Self-Esteem	91.25 (13.19)	82.06 (16.71)	2.4	121	<.05
4. Positive Affectivity	34.53 (5.20)	31.90 (7.69)	1.90	121	ns
6. Interpersonal Trust	3.72 (.81)	4.40 (.99)	-2.46	121	<.05
7. Social Support	55.10 (2.67)	47.00 (5.77)	9.77	121	<.001
8. Loneliness	35.20 (9.32)	47.80 (9.78)	-5.48	121	<.001
9. Overall Adjustment	94.00 (18.51)	74.85 (16.39)	4.31	121	<.001
10. GHQ	10.41 (6.47)	14.25 (5.87)	-2.46	121	<.05
11. Homesickness	4.18 (2.87)	5.30 (3.29)	-1.55	121	ns
12. Number of Problems	2.77 (2.24)	4.45 (3.08)	-2.86	121	<.01

Group I: Having developed a friendly relationship since arrival (n=103)

Group II: Not having developed a friendly relationship since arrival (n=20)

4. Predicting Adjustment to University from Personality and perceived Social Support variables

A hierarchical multiple regression model was used to predict Loneliness and Adjustment to University life from Demographic, Personality and Social Support variables. After cleaning the data (checking for linearity, homoscedasticity, univariate and multivariate outliers etc.), variables were entered the regression equation in three pre-determined steps: (a) Demographic/Background variables (age sex, marital status, nationality), (b) Personality variables (Neuroticism, Extraversion, Interpersonal Mistrust, Social Inhibition and perceived Social Competence), and (c) finally perceived Social Support and satisfaction with old and new relationships (perceived Social Support, relationships satisfaction with family, friends and partner, and whether they had developed a close relationship with another students since arriving at University). Although the intention was to run separate regression analyses for home and non-home students, given the differences between home and non-home students in overall adjustment to University life, the small size of the latter group (less than five cases per independent variable) did not permit this. The following regression analysis was therefore conducted on the entire sample of home plus non-home students.

None of the demographic variables predicted Loneliness. Neuroticism was a significant personality predictor of Loneliness ($B = .30$, $p < .001$), together with Self-Esteem ($B = -.24$, $p < .05$). Satisfaction with relationships ($B = -.11$, $p < .05$) and perceived Social Support ($B = -.37$, $p < .001$) were also highly significant predictors of Loneliness. This model accounted for 72% of the explained variance.

The same model of regression was applied to predict overall Adjustment to University life. Nationality ($B = -.24$, $p < .01$) was the single demographic predictor of overall Adjustment to University life. In respect to the personality variables, Interpersonal Mistrust ($B = -.22$, $p < .01$), Neuroticism ($B = -.20$, $p < .05$) and Extraversion ($B = -.23$, $p < .05$) were all highly significant in the prediction of Adjustment to University life. Social Support variables

Table 8.10 Predicting overall psychosocial Adjustment to University life from Demographics, Personality and perceived Social Support

Source	Cum.R	Adj. R ²	Fchan	df	p	B
1. Demographics	.28	.038	1.92	4,90	ns	
Age						-.05
Sex						.02
Nation						-.24**
Marital Status						.07
2. Personality	.76	.52	19.63	9,85	.001	
Neuroticism						-.20*
Extraversion						-.23*
Self-Esteem.						.22
Mistrust						-.22*
S. Inhibition						-.17
3. Social support- Satisf.-Unifriend	.77	.53	1.44	12,82	<.05	
Satisfaction						.05
Unifriend						-.12
Social Support						.15

Constant=112.87, F(12,82)=9.99, p<.001

Unifriend: Having or not having found a good friend since arrival at University

Table 8.11 Predicting Loneliness from Demographics, Personality and perceived Social Support variables

Source	Cum.R	Adj. R ²	Fchan	df	p	B
1. Demographics	.13	.03	.39	4,90	ns	
Age						-.01
Sex						.03
Nation						-.01
Marital Status						-.09
2. Personality	.83	.66	37.7	9,85	.001	
Neuroticism						.30***
Extraversion						-.12
Self-Esteem						-.24*
Mistrust						.12
S. Inhibition						.10
3. Social support-Satisf.-Unifriend	.87	.72	8.07	12,82	.01	
Satisfaction						-.11
Unifriend						.03
Social Support						-.37***

Constant=82.24, F(12,82)=21.96 , p<.001

Unifriend: Having or not having found a good friend since arrival at University

contributed significantly to the prediction of Adjustment when entered last in the regression analysis. This model accounted for 53% of the explained variance. All the regression analyses are summarized in tables 10 and 11.

Discussion

The present paper yielded a number of findings which are related to home and non-home students psychosocial adjustment to University life.

When comparing home and non-home students approximately 5 months after arrival at University, on a number of personality variables, perceived social support and psychosocial adjustment to University life, (Loneliness and overall Adaptation to University life), no differences were found on any of the personality variables including Neuroticism, Extraversion, Psychoticism, Social Inhibition and perceived Social Competence, Self-Esteem and Interpersonal Trust. This result does not appear to be in line with two earlier cross-sectional studies, using different samples (Chapter 6 and 7). In the first study (Chapter 6), which compared 2 groups of home and non-home students 6 weeks prior to arrival at University, non-home students, in comparison to home students, had higher Self-Esteem, higher Internal Locus of Control, and lower Belief in Powerful Others. In the second study (Chapter 7), conducted approximately two weeks after arrival at University, again non-home students in comparison to home students appeared to be less anxious and with a more positive perception of self. The present study failed to show such differences.

Moreover, in the present study no significant differences were found between home and non-home students regarding subjective satisfaction with already established personal relationships (family, friends, and partner) and perceived social support since students' arrival at University. This finding may indicate that at least during this phase of the transition, after a number of months at University, cultural differences do not influence adversely the development of relationships or rather the perception of them as satisfactory. The strong

relationship between social support and personality measures may reflect the importance of personality in developing fulfilling personal relationships. Alternatively, the crucial role of personality may lie in the perception of the adequacy of social relationships.

However, despite the fact that differences were not found between home and non-home students, on any personality, social support variables, non-home students, in comparison to home students experienced more problems, were more homesick, and finally they were overall less well adjusted to university life. As one might have expected regarding the problems reported, non-home students experienced not only the problems that home students had to face (e.g. lack of meaningful contact with people, depressed mood, lack of academic framework and guidance) but also a number of problems which are probably related to cultural dissimilarity. For example, a higher proportion of non-home students reported having difficulty with the local language, the local climate and the local food. In the past, despite the active controversy whether non-home students experienced problems which were related to their 'student' status or to their status as a 'foreigner' (Coehlo-Oudegest, 1971; Walton, 1967, 1968; Church, 1982) very few studies compared the problems of non-home students with those of home students. Church (1982) in his excellent review of the relevant literature, suggests that foreign students have many problems similar to those of home students but in some cases they may also experience problems that are unique culture-based or are at least aggravated by the stresses of the new cultural experience (Nickelly et al., 1964; Zurin and Rubin, 1967). This multiple nature of the foreign students' problems is well summarized by Furnham and Bochner (1982; 1986) who concluded that foreign students seem to face up to four sets of problems, from which only two are exclusive to them as opposed to home students: (a) First, there are problems that would confront anyone living in a foreign culture, such as communication difficulties, misunderstanding, loneliness etc. (b) Second, there are difficulties that face all late adolescents and young adults whether they are studying at home or abroad, in becoming emotionally independent, self-supportive and productive. (c) Third, there are academic stresses when students are expected to work hard, with complex material.

Finally, (d) the national or ethnic role of non-home students is often quite prominent in their interaction with host students.

Moreover, a higher proportion of non-home students reported having problems regarding difficulty with their academic course, as well as lack of cooperation and support from fellow students. The finding that a higher proportion of non-home students reported having problems regarding difficulty with their academic course may be attributed to the fact that although the majority of the home students were first year Undergraduate students, the majority of non-home students were attending postgraduate courses, and thus potentially more demanding. However, an earlier study (chapter 6) in terms of pre-University attendance, showed that substantial proportion of non-home students appeared to lack significant knowledge as regards the academic standards of the Universities in the host culture. Therefore, it seems reasonable to hypothesize that such lack of information prior to University attendance might affect adversely the subjective evaluation of the course difficulty, as well as the students' ability to cope with the academic demands.

Finally, non-home students appeared to be more homesick and overall less-well adjusted to University life. The highly significant positive correlation between Homesickness and overall Adjustment to University life, might suggest that at least for the non-home students Homesickness is strongly interrelated with the psychosocial Adjustment to University life.

A comparison between the two groups of students who reported having overall adequate or inadequate information of University life, prior to their arrival, showed no significant differences between the two groups regarding the number of problems experienced, Homesickness, Self-Esteem, perceived Social Support, Loneliness and overall Adjustment to University life. Thus, it appears that general knowledge prior to arrival does not influence adversely the students' psychosocial Adjustment. However, this finding should be interpreted with caution given: (a) the fact that in the present sample the number of the non-home

students were limited, (b) the present study is cross-sectional and memory for amount of information received prior to attendance may be subject to inaccuracy of recall.

A comparison between the groups of students with and without much previous experience of living/studying/working away from home, showed no significant differences in respect of Self-Esteem, Social Support, Homesickness, number of problems reported, Loneliness or overall Adjustment to University life. This finding does not appear to be in line with earlier research (e.g. Klineberg and Hull, 1979; Fisher et al, 1988) which suggest that previous experience is one of the most influential factors in eventual adjustment. However, in the present study only the subjective relative amount of previous experience was assessed and not the objective length of time spent away from home. Such analysis might have given different results. On the other hand, given that travelling and living away from home is possibly more common today than it was 15 years ago when Klineberg and Hull (1979) study was conducted, it may be that this variable will have a less important effect on eventual adjustment outcome.

A total of 33.7% of students reported that the reality of life at the University had not met their positive, pre-attendance expectations. The same students were also more homesick, were having more problems and were less well-adjusted to University life. This result can lead one to argue that facing a high number of problems and being more homesick can adversely affect the overall adjustment to University life, lead to a re-evaluation of early positive expectations as 'faulty'. Another possibility is that unrealistic (based on inadequate information), or over optimistic expectations when not fulfilled lead to eventual dissatisfaction. However, it seems also reasonable to argue (particularly given the present cross-sectional design) that the same factors which affect feelings of eventual dissatisfaction with the reality of University life are also related to the experience of homesickness, and the dissatisfaction with University life. Moreover, given that a comparison of the two groups in respect of personality variables showed that students who were disappointed had a higher score in Neuroticism, a lower score

in Extraversion and a higher score in Self-esteem, the latter hypothesis appears to be quite possible. Klineberg and Hull (1979) said that students who complained about a problem in one area, tended to report more problems in all areas as well. Pruitt (1978) also reported a similar finding. Thus, it seems reasonable to argue that although it may be that actual problems may in fact affect general Well-being, Homesickness and overall Adjustment, another possibility may be that personality factors greatly influence the individuals' perception of the situation and the subjective satisfaction with it.

No gender related differences were found other than in perceived Social Support, with females having a higher mean score than males. This is in line with earlier research (e.g. Brewin et al. 1989). An explanation is that females tend to have different disclosure patterns from males which helps the initiation and maintenance of relationships. Another possibility is that women may have different affiliative needs and/ or may tend to develop different more intimate types of relationships.

The present study indicated a strong relationship between Personality and overall Adjustment to University life and in particular the different correlates of Homesickness for home and non-home students. For non-home students, Homesickness (which was highly related to loneliness and overall adjustment to university) was only related to Social Inhibition, and Self-Esteem, for home students it was highly related to the two major Personality factors of Neuroticism and Extraversion. Taking into consideration the finding of an earlier study (Chapter 7) that perceived Social Inhibition correlated quite highly with Cultural Distance (Babiker, Cox and Miller, 1980), it can be argued that Homesickness for non-home students might be primarily related to Cultural Distance/ dissimilarity, the objective distance from home and the consequent difficulties (money and time related) of contacting and visiting home. Thus, on the one hand, experienced homesickness for non-home students may be highly related to the cultural differences, the consequent increased Social Inhibition in the new environment, as well as to the problems (practical and emotional) these may cause. On the other hand, for

home students, the very high correlation between Neuroticism, Extraversion and Homesickness, as well as between Neuroticism, Extraversion and Loneliness, number of problems reported, and overall Adjustment to University life, underlies the significance of Personality in the onset of Homesickness and the psychosocial Adjustment of students. Moreover, the analysis of variance between the three groups of low, intermediate and high levels of Loneliness and overall Adjustment to University supported the existence of significant Personality differences. In addition, the regression analyses showed that Neuroticism and Extraversion were two of the best single predictors of psychosocial adjustment.

It may be argued-as has been argued in the past-that the finding of the high correlation between Neuroticism, number of reported problems, Loneliness and overall Adjustment to university life, simply indicates the existence of a negative response bias. Although this possibility cannot be dismissed as non-valid, recent research seems to support the existence of a tendency to view oneself, others and the world in general in a negative way (Watson and Clark, 1984). The concept of Negative Affectivity has recently received increased attention. Negative Affectivity is not a new concept, but rather an extension of Neuroticism. Although by some researchers Negative Affectivity is viewed as a simple nuisance in research that has to be controlled, for others it is a very useful and interesting amalgamation of many interrelated factors- with Neuroticism at its core. Until today, Negative Affectivity has not been studied adequately in the area of students' psychosocial adjustment during the transition to university, despite the numerous findings in many other areas in psychology that seem to support its importance (e.g. job and marital satisfaction, general physical and mental well-being, overall psychosocial adjustment, social support, etc.). The results of the present study, appear to support the hypothesis that Personality factors are highly significant in the prediction of Adjustment to university life, together with measures of perceived Social Support (which can be seen as the individual-environment interaction).

In the future more research is definitely needed in this area. Moreover, the nature of Neuroticism and Negative Affectivity per se, suggest the possibility that a strong link might exist between such constructs and maladaptive cognitions/ dysfunctional attitudes. In the present study, dysfunctional attitudes were not studied at all, given the heterogeneity of the student samples and the possibility that cultural differences could affect the results. However, future research with a homogeneous sample of home students could be quite fruitful. Furthermore, studies with a longitudinal design focusing on Personality, Social Support and psychosocial/ academic Adjustment to university life could extend our knowledge on the students' transition to University.

CHAPTER 9: STUDY IV

Individual Differences, Dysfunctional Attitudes and

Social Support: A study of the Psychosocial

Adjustment of Home students

Abstract: The main aim of the present study is twofold: (a) to investigate the relationship between the two broad personality dimensions of Neuroticism and Extraversion (and the extended concepts of Negative and Positive Affectivity) and Dysfunctional Attitudes, as well as the relationship between Dysfunctional Attitudes, perceived Social Support, Loneliness and General Well-Being during the transition to University; and (b) to study the contribution of such variables in the prediction of psychosocial Adjustment of Home students to University life. One hundred and twenty four home students completed a questionnaire which was distributed 10 weeks after arrival at university, which assessed: (a) Personality (Extraversion, Neuroticism, Interpersonal Trust, and Self-Esteem), (b) Dysfunctional Attitudes, (c) state Negative and state Positive Affectivity, (d) perceived Social Support, and (f) psychosocial Adjustment to University life. The results indicated that: (a) Dysfunctional Attitudes correlated significantly with all the personality and psychosocial adjustment variables, and (b) Personality (Extraversion, Neuroticism, Self-Esteem, Interpersonal Trust) and Dysfunctional Attitudes contributed significantly to the prediction of perceived Social Support and psychosocial Adjustment to University life, as assessed in terms of Loneliness, General Well-Being, and overall Adjustment. Results are discussed in relation to the relevant literature and implications for students' Counselling.

Introduction

The relationship between maladaptive, dysfunctional or irrational cognitions, beliefs or attitudes (Beck, 1967; Ellis, 1979) and loneliness, depression and general well-being among student samples has recently received attention (e.g. Bonner and Rich, 1991; Hoglund and Collison, 1989; Wilbert and Rupert, 1986; Wong and Whitaker, 1993).

Hammen (1978) in a study of 275 female undergraduate students described two types of individuals identified using the Beck Depression Inventory (Beck, 1979): one group may be depressed because of recent stressful life events, while the other group is depressed independent of life-stress events, and as suggested by their relatively higher levels of depressive distortion, may be depressed in response to their biased cognitions of self, environment and the future. Wilbert and Rupert (1986) in a cross-sectional study on loneliness severity, depression and dysfunctional attitudes with 50 introductory Psychology students, found a strong positive relationship between dysfunctional attitudes and loneliness, even after level of depression was satisfactorily controlled. Wilbert and Rupert (1986) argued that lonely students' thinking is dominated by doubts about ability to find satisfying romantic relationships and fears of being rejected and hurt in an intimate pairing. Cutrona (1982) also found in her well-structured longitudinal study of first year students that expectations and cognitive attributions of loneliness differentiated between those who did or did not overcome loneliness at the end of the academic year. More specifically, she found that: (a) students who made an adequate adjustment had more positive initial expectations of making friends, (b) attributed their loneliness more often to situational factors and, (c) subjective satisfaction with relationships was a better predictor of loneliness than was any quantitative measure of the students' social involvement. In another study on loneliness and irrational beliefs, using a sample of college students, Hoglund and Collison (1989) found a positive relationship between loneliness and Ellis' (1979) irrational beliefs, arguing that this finding supported the existing theoretical and empirical data that cognitions, acting as filters or screens between the external world and the individual's responses to it (Gillis and Lanning, 1989), play a significant role in loneliness.

Jones et al (1981) also found that loneliness correlated with beliefs of personal powerlessness, that the world is unjust and generally that people are untrustworthy, and he concluded later on (Jones, 1982) that the reasons for loneliness are primarily found 'in the way in which lonely people perceive, evaluate and respond to interpersonal reality' (p. 224).

Furthermore, according to the self-worth contingency model of depression, individuals with a large number of dysfunctional attitudes are cognitively vulnerable and display increased depressive symptomatology when stressful events prevent them from meeting their rigid and unrealistic contingencies of self-worth (Kuiper, Olinger and Air, 1989). In other words, it is proposed that perception and evaluation of self-worth play an important role in the etiology, maintenance and remission of depressive symptoms (Kuiper, Olinger and McDonald, 1988). Dysfunctional attitudes are viewed as central components of this model (Kuiper, Olinger and Air, 1989). These attitudes specify excessively rigid and inappropriate contingencies for guiding and evaluating one's behaviour (Beck, Rush, Shaw and Emery, 1979).

Although the relationship between loneliness and dysfunctional attitudes/maladaptive cognitions has been investigated, few studies have dealt with the relationship between major personality factors and maladaptive cognitions/attitudes particularly in the context of students' adjustment to university life. Nevertheless, recent research in the areas of personality, and particularly on Neuroticism and the more extended concept of Negative Affectivity (Watson and Clark, 1984; Watson et al. 1988; 1989) seem to suggest that a link between Neuroticism, Negative Affectivity (State and Trait), Dysfunctional Attitudes and Adjustment, as well as between Extraversion, Positive Affectivity, Dysfunctional attitudes and Adjustment might exist. In addition, there is a lack of studies in the literature regarding the role of personality and cognitions in the development of new satisfactory relationships after transition to University: only one study exists on home and non-home students (Halamandaris and Power, 1995) which investigated the issue just two weeks after students' arrival at University, and two longitudinal studies on home students (Shaver et al., 1986; Riggio et al., 1991) that

focused on social skills deficiency rather than on personality and dysfunctional attitudes. Furthermore, in relation to overall psychosocial adjustment of students during the transition to university, very few studies have adequately examined the possible relationship between overall adjustment, major personality factors and dysfunctional attitudes, despite the fact that over the last fifteen years research findings suggest that more research in this direction is definitely required.

The present study intends to rectify some of the problems discussed above. A preliminary aim of the present study is: (a) to investigate the sorts of problems home students experience during the first three months after the transition to University, as well as the level of reported homesickness and loneliness; and (b) to investigate any personality, and attitudinal differences between students who have and those who have not developed a satisfactory relationship since their arrival at University.

The main objective of the present study is to investigate the relationship between the two broad personality dimensions of Neuroticism and Extraversion (and the extended concepts of Negative and Positive Affectivity) and Dysfunctional Attitudes, as well as the relationship between Dysfunctional Attitudes, perceived Social Support, Loneliness and General Well Being, during that transition of first year home students to University. Finally, to study the contribution of such measures in the prediction of Psychosocial Adjustment of home students to University life.

Procedure

The present study took place ten weeks after students' arrival at university and approximately two weeks before the end of the first semester. This time of administering the questionnaire is considered appropriate, similar to that of Cutrona (1982) and Shaver et al. (1986), ensuring that students had adequate time to develop new relationships and to have coped with the initial period of transition to University life. A set of questionnaires was distributed to 200 first year

students. The questionnaires were distributed to the students at the beginning of a psychology class. No extra credit or payment was given, and participation to the study was voluntary. Responses to the questionnaires were anonymous and students were assured about the strict confidential treatment of their responses. Students were asked to complete the questionnaire and to return it during the following week, in the addressed envelope provided. 129 sets were returned (response rate: 63%), and 5 sets were discarded for extensively missing data (more than 10% missing). The response rate of the present study compared favourably with other similar studies (e.g. Searle and Ward, 1991).

Subjects

The final sample consisted of 124 students, with 37 (29.8%) male and 86 (69.4%) female students, mainly British (95.2%). 6 non-British students were included in the sample. The mean age of the group was 24.4 years ($sd=8.68$), with a range of 18 to 56 years. The majority of the students were single ($n=98$, 79%); 23 students were married/cohabiting or had a serious relationship (18.5%) and 3 students were divorced/separated.

Measures

The questionnaire consisted of two parts : (a) a general information and personal details form, and (b) a second part which included a number of widely used, valid and standardized measures of personality, dysfunctional attitudes, social support, and general well-being. In the first part of the questionnaire data concerning gender, age, nationality, marital status, etc. were collected from all subjects by means of a self-report personal details form. The first part also included a list of 16 social and academic problems related to University life in a yes-no format (this scale was based on a similar problems list used by Klineberg and Hull, 1979).

The second part consisted of a number of standardized and widely used scales measuring a number of Personality variables, Dysfunctional Attitudes, Social Support and Psychosocial Adjustment to University life. In the present study three standardized measures were used as

indices of Psychosocial Adjustment to University life: (a) a measure of subjective satisfaction with several social and academic aspects of University life (Crombag, 1968; van Rooijen, 1985), (b) a measure of Loneliness (Russell, Peplau, and Cutrona 1980), following Cutrona (1982), Shaver et al (1986), Jones and Moore (1989), and (c) a measure of psychosomatic well-being, measuring cognitive, behavioural, somatic well-being and depression (Goldberg and Hillier, 1979). It is important to note that the above variables are not measuring the same construct, neither they are synonymous; they are rather complementary dimensions of overall adjustment (Folkman, et al, 1985; Cutrona, 1982; Chataway and Berry, 1989). All the standardised measures used were as follows:

(a) Extraversion, Neuroticism, Psychoticism and Lie scale (Eysenck and Eysenck, 1981)

The Eysenck and Eysenck EPQ-R (1981) has been used in the present study (the 48-item, short version scale) because it is valid, standardised and is the most widely used instrument measuring Introversion-Extraversion, Neuroticism and Psychoticism. The alpha coefficients for the present study was .92, .92 and .88 respectively.

(b) Interpersonal Trust (Rotter, 1967; 1980).

Interpersonal Trust was measured with a substantially shortened version of Rotter's (1980) Interpersonal Trust Scale. Subjects responded on a 5-point Likert scale about the extent to which they agreed or disagreed with 9 statements used by Folkman, Lazarus, Gruen and DeLongis (1986) as the short form of the original scale (1967) which included 25 items measuring trust and 15 filler items. It was reported to have a good test-retest reliability, good construct validity and a split-half reliability of $r = .76$, $p < .001$. The alpha coefficient for their study was .70; the alpha coefficient for the present study was .89.

(c) Negative and Positive Affectivity (Watson and Clark; 1988)

The Negative and Positive Affectivity scales (PANAS) were constructed to measure Positive (PA) and Negative (NA) Affectivity. Each scale consists of 10 items. They are in a Likert

scale with scores ranging from 1 to 5 (from 'never' to 'always'). The internal consistency given for Positive Affectivity was .86 - .90 and .84 - .87 for the Negative Affectivity scale. The reported correlation between NA and PA was $r = -.12$ to $-.23$. The scales have excellent convergent and discriminant correlations with lengthier measures of the underlying mood factors. When used with short-term instructions as in the present study (e.g. right now or today) they are sensitive to fluctuations in mood, whereas they exhibit traitlike stability when longer-term instructions are used (e.g. past time or general).

(d) Dysfunctional Attitudes (Weissman, 1980)

The Dysfunctional Attitudes scale (DAS) is a 40-item instrument designed to identify cognitive distortions -particularly the distortions that may underlie or cause depression. Derived from Beck's cognitive theory of depression, the items describe distorted beliefs and attitudes that Beck terms maladaptive assumptions (Beck, 1974; 1979) and Ellis labels irrational beliefs (1962, 1979). The items on the DAS were constructed so as to represent seven major value systems: a)approval, b)love, c)achievement, d)perfectionism, e)entitlement, f)omnipotence, and g)autonomy. The DAS has excellent internal consistency with alphas on the form of the DAS reproduced here ranging from .84 to .92. It also has excellent stability with test-retest correlations over eight weeks of .80 to .84, and excellent concurrent validity, significantly correlating with a number of other measures of depression and depressive distortions such as the BDI. The alpha coefficient for the present study was .82.

(e) Self-esteem (Hudson, 1982)

The Index of Self-esteem (ISE, Hudson, 1982) is a 25 item, self-report questionnaire designed to assess the degree or magnitude of a problem that a person has in the area of self-esteem. All items are in statement format. Respondents are required to rate each item-statement from 'rarely or none of the time' to 'most or all of the time', on a 1 to 5 scale.

The suggested scoring system entails scoring all items in the direction of low self-esteem, which necessitates score reversal in some items, and finally subtracting 25 from the total score, to give a score range from 0 to 100. However, for the present study, which does not require a cut-off point but only a comparable mean, subtraction of 25 was not calculated. In addition, although the suggested scoring system entails scoring all items in the direction of low self-esteem, for the purposes of this study, the scoring system was reversed in the direction of high self-esteem, with higher scores indicating a higher degree of self-esteem. The ISE is internally consistent ($\alpha = .93$), has good test-retest reliability ($r = .92$), and has good known groups validity ($r = .52$). The alpha coefficient for the present study was .93.

(f) Global Social Support (Cohen et al., 1985)

Global Social Support was assessed using the student form of the Interpersonal Support Evaluation List (ISEL, Cohen et colleagues, 1985). The ISEL consists of 48 items in the statement format (and 40 for the general population form), concerning the perceived availability of social, potential support resources. The items are counterbalanced for desirability. Items were developed on theoretical grounds to cover the domain of socially supportive elements of relationships which students might be expected to experience (Cohen and Hoberman, 1983).

It has 4 sub-scales of twelve item statements each, and each sub-scale is constructed to measure a different element of Social Support. The four sub-scales refer to the following elements: a) Appraisal Support, b) Belonging Support, c) Tangible Support, and finally, d) Esteem Support. In the present study, only the first three subscales were used, given that many items of the last subscale overlap with the Self-Esteem Index.

Reported internal reliabilities range from .88 (alpha coeff.) to .90 for the general population form of the ISEL. It also has a good test-retest reliability (.70) over a six-week interval for the overall score and the four subscales scores (Cohen, Kamarck, Mermelstein and Hoberman,

1985). The alpha coefficient for the present study was .95.

(g) Loneliness (Russel, Peplau and Cutrona, 1980)

Although there are a number of scales available for measuring Loneliness, the R-UCLA-Loneliness scale is the most widely used (Russel, Peplau and Cutrona, 1980). It has a high internal consistency (alpha =.94) and a number of studies indicate good concurrent and discriminant validity. The R-UCLA loneliness scale consists of twenty items in a statement format. Subjects indicate how often they feel the way described in each of the statements, and the answers range from 'never' to 'often'. All items are counterbalanced for Social Desirability. The overall score is calculated by adding each item's scores after reversing the positive items, so that the higher the overall score, the higher the degree of the experienced Loneliness. The internal reliability for the present study was .91.

(h) General Well-being (Goldberg and Hillier, 1979)

The General Health Questionnaire, 28-item (Goldberg & Hillier, 1979) was used as another index of adjustment. The General Health Questionnaire is the short version of the original GHQ-60 (1972). The GHQ is a 28-item statement questionnaire and it was designed as a measure of psychiatric caseness. It consists of 4 sub-scales, with 7 items each, and each sub-scale measures a different aspect of well-being: (a) somatic dysfunction; (b) social dysfunction, (c) anxiety and insomnia, and finally, (d) depression.

The CGHQ scoring method of Goodchild and Duncan Jones (1985) can be used in order to produce an even less skewed distribution of total GHQ scores, and some studies have shown that this also increases the sensitivity of the instrument (increase from 73.5% to 84%). This method was used in the present study. The GHQ-28 has been shown to be valid ($r= 0.76$), and reliable ($r=0.90$) (Robinson and Price, 1982). The internal reliability for the present study was .91.

(i) Adaptation to University Life (College Adaptation Questionnaire, Crombag, H. 1968; Van Rooijen, 1986)

The College Adaptation Questionnaire (CAQ), constructed by Crombag (1968) to assess how well students have adjusted to University life, is a self-report instrument consisting of 18 statements. Respondents indicate on a seven point rating scale how well each statement applies. Eight statements indicate good adjustment and ten statements indicate the lack of it. The total score for adjustment is the sum of the item scores, after having reflected the items which indicate a poor adaptation. The Cronbach's alpha coefficient for the present study was .92.

Data Analysis

First, general information regarding the measures used are provided. Students who had or had not developed a satisfactory relationship with another student during the first term at University were compared in respect of personality, dysfunctional attitudes, perceived social support and psychosocial adjustment to University life using unpaired t-tests. Investigation of the relationship between variables were examined by means of Pearson correlations. A ONEWAY analysis of variance was used to investigate differences between three student groups of low, intermediate and high adjustment to University life. Finally, hierarchical multiple regression analysis was used to investigate the relative contribution of demographic and personality variables, dysfunctional attitudes, and perceived social support in the prediction of the psychosocial adjustment variables.

RESULTS

The means and standard deviations of all the measures taken are summarised in table 1. No sex differences were found in any of the measures between male and female students.

Regarding the problems that students reported for the first semester, financial difficulties was the most frequently mentioned problem, with approximately half the students having

experienced financial difficulties (n=57, 45.9%). The next most frequently mentioned problem was work overload (n=37, 29.6%), followed by lack of academic framework and guidance (n=33, 26.4%), and difficulty of the course (n=29, 23.2%). Lack of meaningful contact with people (n=23, 18.4%), depressed mood and homesickness (n=27, 21.6%), and loneliness (n=24, 19.2%) were some of the frequently mentioned problems. A significant percentage of students experienced problems with accommodation or flatmates (n=26, 20.8%), practical problems (e.g. transportation) (n=21, 19.2%), and 18.4% (n=34) of the students mentioned as one of the problems having to manage family responsibilities and studying at the same time. The percentages of students who reported problems related to Religion (n=1, .8%) or to racial/sexual discrimination (n=4, 3.2%) were very small.

(A) Differences between students with and without a relationship

In response to the question whether since arrival at University had they found somebody with whom they were getting along particularly well- a potentially good friend, the majority (n=103, 83.1%) of students indicated that they had established a satisfactory, friendly relationship with another student since their arrival. Further analysis between the group of students who reported having found a good friend (n=103), and those who said that they had not (n=20), showed that students who had not found a good friend by that time were more lonely, as measured by the R-UCLA Loneliness scale ($t=-5.48$, $df=121$, $p<.001$), less well-adjusted to the University life ($t=4.31$, $df=121$, $p<.001$), and had a higher GHQ score ($t=-2.30$, $df=121$, $p<.001$). In addition, they had a lower degree of perceived social support as measured by the ISEL scale ($t=9.77$, $df=121$, $p<.001$), and they experienced a much higher number of problems mentioned in the list of 16 possible academic and adjustment related problems ($t=-2.80$, $df=121$, $p<.001$). A significant difference was found in Interpersonal Mistrust ($t=-2.79$, $df=121$, $p<.01$) with the low social contact group having a higher degree. The two groups also differed significantly in Extraversion ($t=2.99$, $df=121$, $p<.001$), Positive Affectivity ($t=1.90$, $df=121$, $p<.05$) and Self-Esteem ($t=2.40$, $df=121$, $p<.05$), with the low social contact group having a lower mean score in Extraversion, Positive Affectivity and Self-Esteem (table 2).

Table 9.1: Means and standard deviations for male (n=37) and female (n=86) students (df=121)

Measure	Means (SD)	t-test	p
1. Neuroticism			
males	4.27 (2.78)		
females	5.69 (3.12)	-2.40	< .05
2. Extraversion			
males	7.24 (3.41)		
females	7.86 (3.30)	-.94	ns
3. Self-Esteem			
males	91.12 (13.15)		
females	89.29 (14.42)	.61	ns
4. Negative Affectivity			
males	16.02 (5.15)		
females	16.56 (5.73)	-.50	ns
5. Positive Affectivity			
males	34.18 (5.21)		
females	34.09 (5.96)	.08	ns
6. Dysfunctional attitudes			
males	131.02 (16.08)		
females	130.95 (16.84)	.02	ns
7. Social Support			
males	52.70 (5.28)		
females	54.13 (4.03)	-1.65	ns
8. Loneliness			
males	38.32 (10.99)		
females	36.76 (10.27)	.75	ns
9. Overall Adjustment			
males	90.70 (17.99)		
females	90.72 (20.14)	.00	ns

Table 9.2: Personality, Social Support and Well Being differences between students with and without a new friendly relationship since arrival at University

Measure	Group I	Group II	t-test	df	p
1. Neuroticism	5.18 (3.22)	5.65 (2.34)	-.61	121	ns
2. Extraversion	8.05 (3.19)	5.70 (3.45)	2.99	121	<.01
3. Self-Esteem	91.25 (13.19)	82.06 (16.71)	2.4	121	<.05
4. Positive Affectivity	34.53 (5.20)	31.90 (7.69)	1.90	121	ns
6. Interpersonal Trust	3.72 (.81)	4.40 (.99)	-2.46	121	<.05
7. Social Support	55.10 (2.67)	47.00 (5.77)	9.77	121	<.001
8. Loneliness	35.20 (9.32)	47.80 (9.78)	-5.48	121	<.001
9. Overall Adjustment	94.00 (18.51)	74.85 (16.39)	4.31	121	<.001
10. GHQ	10.41 (6.47)	14.25 (5.87)	-2.46	121	<.05
11. Homesickness	4.18 (2.87)	5.30 (3.29)	-1.55	121	ns
12. Number of Problems	2.77 (2.24)	4.45 (3.08)	-2.86	121	<.01

Group I: Having developed a friendly relationship since arrival

Group II: Not having developed a friendly relationship since arrival

(B) Relationships between Personality, Dysfunctional Attitudes, Social Support, and Psychosocial Adjustment

A number of significant high order correlations were computed (table 3). Most of the personality variables intercorrelated. Neuroticism correlated significantly with Negative Affectivity (.64, $p < .001$) and Positive Affectivity (-.38, $p < .001$) as well as with Interpersonal Mistrust (.27, $p < .01$), Self-Esteem (-.59, $p < .001$) and Dysfunctional Attitudes (-.43, $p < .001$), as well as with the number of problems reported (.47, $p < .001$). In other words, anxious and emotionally unstable students were more mistrustful, had a more negative perception of self and a higher number of dysfunctional attitudes. At the same time they had a higher score in Negative Affectivity score and a lower Positive Affectivity score.

Extraversion correlated also with the variables of state Negative Affectivity (-.35, $p < .001$) and Positive Affectivity (.38, $p < .001$), as well as with the personality variables of Interpersonal Mistrust (-.30, $p < .01$), Self-Esteem (.55, $p < .001$), and Dysfunctional Attitudes (-.29, $p < .01$). It also correlated with all the psychosocial adjustment variables. However, it did not correlate with the number of problems experienced. Thus, students who were highly extraverted were also more trustful of others, had fewer dysfunctional attitudes and a more positive perception of self and others.

Loneliness correlated significantly with Neuroticism (.44, $p < .001$) and Extraversion (-.60, $p < .001$), Self Esteem (-.62, $p < .001$), Interpersonal Mistrust (.55, $p < .001$) and Social Support (-.63, $p < .001$). Loneliness also correlated with GHQ (.47, $p < .001$) and overall Adjustment to University (-.67, $p < .001$). Thus, lonely students were also more introverted, more anxious, more mistrustful, less socially supported, with lower scores in general mental and somatic well-being, and with a more negative perception of self.

Finally, overall Adjustment to University life correlated positively with Extraversion, (.33, $p < .001$) and Social Support (.47, $p < .001$), and negatively with Neuroticism (-.44, $p < .001$),

Table 9.3 Correlations for first year home students

	1	2	3	4	5	6	7	8	9	10	11	12
1 N	1.00											
2 E	-.31*	1.00										
3 NA	.64**	-.35**	1.00									
4 PA	-.38**	.38**	-.29*	1.00								
5 IM	.27*	-.30**	.25*	-.15	1.00							
6 DA	.43**	-.29**	.56**	.39**	.21	1.00						
7 SE	-.59**	.55**	-.53**	.60**	-.32**	-.54**	1.00					
8 SS	-.24	.57**	-.17	.41**	-.43**	-.32**	.46**	1.00				
9 UCLA	.44**	-.60**	.43**	-.43**	.55**	.43**	-.62**	-.75**	1.00			
10 GHQ	.55**	-.29*	.54**	-.43**	-.29*	.46**	-.52**	-.29*	.47**	1.00		
11 PR	.47**	-.16	.35**	-.32**	.28*	.28*	-.36**	-.29*	.44**	.67**	1.	
12 UA	-.44**	.33*	-.49**	.48**	-.48**	-.45*	.53**	.47**	-.67**	-.63**	-.50**	1.

N=123 ** Significant at p<.001 * Significant at p<.01

N: Neuroticism
 E: Extraversion
 NA: Negative Affectivity
 PA: Positive Affectivity
 SE: Self-Esteem
 SS: Social Support
 DA: Dysfunctional Attitudes
 PR: No of Problems Experienced
 UA: Overall Adjustment to University
 UCLA: Loneliness
 GHQ: General Well-Being
 IM: Interpersonal Mistrust

Dysfunctional Attitudes ($-.45, p < .01$), Interpersonal Mistrust ($-.48, p < .001$), Self-esteem ($-.53, p < .001$), Positive and negative Affectivity. It also correlated highly negatively with the number of problems experienced ($-.50, p < .001$). Therefore, less well-adjusted students were more anxious, more introverted, more mistrustful, less socially supported and with a more negative perception of self.

(C) Differences between three levels of overall Adjustment to University life.

A number of ONEWAY analyses of variance were computed between three groups of High, Intermediate and Low Adjustment to university life, determined by selecting the top and bottom 27% and the middle 46% of scores, following Saklofske and Yackulic (1988). The three groups differed significantly not only in terms of Loneliness, General Well-Being or perceived Social Support, but also in terms of the two major Personality factors of Extraversion and Neuroticism, as well as in terms of Dysfunctional Attitudes, Interpersonal Mistrust and Self-Esteem. The results are summarised in table 4.

(D) Prediction of social support, loneliness and adjustment to University life from demographic, personality and social support

A number of multiple regression analyses took place in order to predict: (a) Social Support, (b) Loneliness, (c) General Well-being and (d) overall Adjustment to University life. The independent variables were entered into the equation in four pre-determined steps: (a) Demographics first (age, sex, marital status, and whether spouse was with them at the University or not), (b) the two major Personality dimensions of Extraversion and Neuroticism next, followed by (c) Dysfunctional Attitudes, Interpersonal Mistrust, and Self-Esteem. (d) Finally, a variable referring to whether students had manage to develop a close relationship with another student since arrival at the University was entered last. When the predicted variables were Loneliness, General Well-Being or Overall Adjustment to University life, Social Support was also entered at the fourth step.

Table 9.4 ONEWAY Analysis of Variance among 3 Groups of High, Average and Low Adjustment to University

Variable	Group I	Group II	Group III	F(2,121)	Groups
1.Neuroticism	3.46	5.45	6.91	9.98***	1-2,1-3, 2-3
2.Extraversion	9.06	7.31	7.12	3.48*	1-3, 2-3
3.Self-Esteem	98.15	88.51	80.11	11.66***	1-2,1-3, 2-3
4.Mistrust	3.23	3.88	4.5	17.58***	1-2,1-3, 2-3
5.Dysfunct. Attitudes	121.54	130.31	138.80	7.82***	1-2,1-3, 2-3
6.Social Support	56.20	53.91	50.12	15.42***	1-2,1-3, 2-3
7.Loneliness	27.60	37.82	47.20	38.06***	1-2,1-3, 2-3
8.GHQ	6.33	10.70	17.83	31.61***	1-2,1-3, 2-3

Group I: High Adjustment (> 109)
 Group II: Intermediate Adjustment (73 < > 108)
 Group III: Low Adjustment (< 72)
 Groups: Significantly different groups at .05

After the cleaning of the data (checking for linearity, homoscedasticity, univariate and multivariate outliers), Social Support was predicted first. All steps contributed significantly to the prediction of Social Support with Extraversion ($B=.40, p<.001$) and Interpersonal Mistrust ($B=-.23, p<.01$) being the single two most significant predictors. In addition, the dichotomous variable showing whether students' spouse/girlfriend/ boyfriend was with them at University was the only significant demographic predictor ($B=.23, p<.01$). This additive model explained 44% of the variance (table 5).

When Loneliness was predicted, 72% of the variance were explained by all the variables in the equation, with Extraversion ($B=-.15, p<.05$), Interpersonal Mistrust ($B=.26, p<.001$) and Self-Esteem ($B=-.16, p<.05$), as significant variables to best predict Loneliness. In addition, perceived Social Support was the single best predictor of Loneliness ($B=-.41, p<.001$) (table 6).

When overall Adjustment to University life was the predicted variable, 41% of the variance was explained, with Dysfunctional Attitudes ($B=-.23, p<.05$) and Interpersonal Mistrust ($B=-.30, p<.01$) as the single most significant predictor variables (table 7).

Finally, when General Well-Being was the predicted factor, 36% of the variance was explained, with Neuroticism ($B=.32, p<.01$), and Dysfunctional Attitudes ($B=.29, p<.001$) as the single most significant predictor variables. It is noteworthy that, after all the Personality and Dysfunctional Attitudes variables were entered in the equation, social support and whether students had found a good friend or not, did not contribute significantly to the prediction of General Well-Being (table 8).

Discussion

The present study yielded a number of quite interesting points regarding students' psychosocial adjustment to University life. Regarding the development of satisfying

Table 9.5 Predicting Social Support from Demographic variables, Personality and Dysfunctional Attitudes

Source	Mult. R	Adj. R ²	Fchan	df	p	B
1. Demographic	.30	.05	2.49	4,99	< .05	
age						-.09
sex						-.07
marital status						.00
partner here						-.23**
2. Personality	.62	.35	23.26	6,97	< .001	
Neuroticism						-.02
Extraversion						.40***
3. Dysfunctional Attitudes-Self-esteem-Mistrust	.69	.43	5.39	9,94	< .001	
Dysf. Attit.						.17
Self-esteem						.04
Mistrust						-.23**
3. Unifriend	.70	.44	3.53	10,93	ns	
Unifriend						-.15
Constant=52.02 F(10,93)=9.13, p<.001						

Unifriend: Having or not having developed a friendly relationship with another student since arrival at University

Table 9.6 Predicting Loneliness from Demographic, Personality variables, Dysfunctional Attitudes and Social Support

Source	Mult. R	Adj. R ²	Fchan	df	p	B
1. Demographic	.29	.05	2.33	4,100	ns	
age						.10
sex						.01
marital status						.02
partner here						.12
2. Personality	.71	.48	41.66	6,98	<.001	
Neuroticism						.13
Extraversion						-.15*
3. Dysfunctional Attitudes-Self-esteem-Mistrust	.81	.63	15.20	9,95	<.001	
Dysf. Attit.						-.08
Self-esteem						-.16*
Mistrust						.26****
4. Social Support-Unifriend	.87	.72	16.05	11,93	<.001	
Unifriend						-.09
Social Support						-.41****
Constant=51.05 F(11,93)=25.60, p<.001						

Table 9.7 Predicting overall Adjustment to University life from Demographic variables, Personality, Dysfunctional Attitudes and Social Support

Source	Mult R	Adju R ²	Fchan	df	p	B
1. Demographic	.12	.02	.39	4,100	ns	
age						-.04
sex						-.04
marital status						.00
partner here						.07
2. Personality	.50	.20	15.34	6,98	<.001	
Neuroticism						-.15
Extraversion						-.05
3. Dysfunctional Attitudes-Self-esteem-Mistrust	.67	.40	11,62	9,95	<.001	
Dysf. Attit.						.23*
Self-esteem						.14
Mistrust						-.30**
4. Social Support-Unifriend	.69	.41	1.31	11,93	ns	
Unifriend						-.08
Social Support						.15
Constant=41.98	F(11,93)=6.91	p<.001				

Table 9.8 Predicting General Well-being (GHQ) from Demographic, Personality, Dysfunctional Attitudes and Social Support variables

Source	Mult R	Adju R ²	Fchan	df	p	B
1. Demographic	.19	.00	.93	4,100	ns	
age						-.04
sex						.11
marital status						.13
partner here						.07
2. Personality	.58	.30	22.24	6,98	<.001	
Neuroticism						.32**
Extraversion						-.04
3. Dysfunctional Attitudes-Self-esteem-Mistrust	.65	.37	5.06	9,95	<.01	
Dysf. Attit.						-.29***
Self-esteem						-.10
Mistrust						.05
4. Social Support-Unifriend	.66	.36	.17	11,93	ns	
Unifriend						.04
Social Support						.04
Constant= 20.83 F(11,93)=7.02 p<.001						

relationships during the transition to University, first year students who had not managed to develop a friendly relationship with another student, since their arrival at University, reported having higher scores in Loneliness, lower scores in perceived Social Support, higher scores in general Well-Being, and lower scores in overall Adjustment to University life. Furthermore, a number of significant personality differences were found with students in the group that had developed a close relationship having a higher score in Extraversion and Positive Affectivity, and a lower score in Interpersonal Mistrust. However, the small number of students who had not developed a close relationship suggest that these results should be interpreted with caution. What is worth noting at this point is that there are not only significant differences in respect to general Well-Being, experienced Loneliness and overall Adjustment to University, but also in respect of Personality variables, between the two groups. This result appears to be in line with an earlier study (Chapter 7) which investigated Personality, Social Support and Well-Being /Adjustment differences between a separate group of home and non-home students who had or had not established such a relationship at the early stages of the transition transition to University life i.e. two weeks after arrival at University.

A number of significant correlations were computed. As was expected Neuroticism and Extraversion correlated quite highly with all the Psychosocial Adjustment variables (general well-being, loneliness and overall adjustment to Univerity). The number of problems reported by students correlated with Neuroticism, but not with Extraversion, and perceived Social Support correlated with Extraversion, but not with Neuroticism. Social Support also correlated positively with state Positive Affectivity, but not with Negative Affectivity. Negative Affectivity and Positive Affectivity correlated quite higly with Neuroticism and Extraversion respectively, as well as with adjustment to the University life. One possibility is that Neuroticism may be related to a tendency of negative reporting and thus the correlations mentioned above between Neuroticism and number of problems experienced, Neuroticism and Loneliness and so on. Another possibility might be that Neuroticism (and trait Negative

Affectivity) affect not only the tendency to respond more negatively in a self-report questionnaire, but also the tendency to perceive everything, including oneself, others and the surrounding world in a negative way. In other words, it might be that this negative reporting is not just 'skin deep', but that in fact the individual high in Neuroticism is perceiving everything more negatively, is more unsatisfied, and finally, more unhappy -in this present case with the transition- and his/her adjustment to the new environment. The highly significant correlation between Neuroticism and Dysfunctional Attitudes, appears to support this hypothesis.

One of the main objectives of the study was to investigate the role of Dysfunctional Attitudes in the psychosocial Adjustment to University life. Dysfunctional Attitudes correlated quite highly and positively with Neuroticism and state Negative Affectivity and negatively with Extraversion, Positive Affectivity and Self-esteem. Dysfunctional Attitudes also correlated negatively with perceived Social Support and Interpersonal Mistrust, as well as with overall adjustment to University life. Finally, Dysfunctional Attitudes correlated positively with Loneliness, GHQ and number of problems experienced. These results seem to be in agreement with earlier studies (e.g. Wilbert and Rupert, 1986) and seem to support the notion that Dysfunctional Attitudes, 'acting as filters or screens between the external world and the individual' s responses to it (Gillis and Lanning, 1989), as well as Neuroticism may predispose an individual to experience a number of unpleasant emotions such as Loneliness, psychosomatic problems, and general dissatisfaction with their life, particularly in times of stress such as the transition to University. In fact, whereas Interpersonal Mistrust and Extraversion were the single two most significant personality predictors of Social Support, and Extraversion and perceived Social Support the two best predictors of Loneliness, Dysfunctional Attitudes together with Interpersonal Mistrust were the single two best predictors of overall Adjustment to University life. In addition, in the prediction of general psychosomatic well-being (GHQ), Neuroticism and Dysfunctional Attitudes were the two most significant predictors. Furthermore, in the prediction of overall adjustment and in the

prediction of general well-being, it is noteworthy that after Personality, Self-Esteem and Dysfunctional Attitudes were already in the equation, perceived Social Support did not contribute significantly. Such findings should be taken into consideration when treating and counselling students with problems of poor psychosocial adjustment to University life.

CHAPTER 10: STUDY V

**Individual Differences, Social Support and
Coping with the Examination Stress: A study
of the Psychosocial and Academic Adjustment
of first year home students**

Abstract: The main aim of the present study is threefold: (a) to investigate the relationship between Personality variables (Extraversion, Neuroticism, Achievement Motivation), perceived Social Support and overall psychosocial Adjustment to University life (measured in terms of absence of Loneliness and overall subjective satisfaction with several social and academic aspects of University life; (b) to investigate the relationship between Coping with examination stress, psychosocial Adjustment and academic performance; and (c) to predict psychosocial Adjustment to University life from a number of demographic, Personality, Coping and Social Support variables. One hundred and eighty three first year home students completed a questionnaire at the end of the academic year, measuring: (a) Neuroticism, Extraversion, Achievement Motivation, perceived Social support, Loneliness, overall Adjustment to University life, and Ways of Coping with the examination stress. The results indicated that: (a) Personality variables correlated significantly with Social Support and psychosocial Adjustment to University life. However, none of the Personality variables, perceived Social Support measures, or other psychosocial Adjustment indices correlated with academic performance. (b) Emotion-focused Coping correlated positively with Neuroticism. Several correlations were reported between personality and the different ways /strategies of Coping with the examinations stress. 'Distancing oneself' from examination stress was the only variable that significantly correlated with academic performance. (c) Finally, personality and Social Support contributed significantly to the prediction of psychosocial Adjustment to University life. Results are discussed in relation to the relevant literature.

Introduction

Over the last thirty years, transition, change and their consequences have been studied a great deal and in several contexts. Initial research concerning the adjustment of students to university life focused primarily on non-home or foreign students. Many background variables which may be associated with students adjustment have been considered such as age (Gullahorn and Gullahorn, 1966; Hull, 1978); sex, social class and nationality (e.g. Lysgaard, 1956; Deutch, 1970; Hassan, 1962; Klineberg and Hull, 1979; Chataway and Berry, 1989); previous experience of travelling (Amir, 1969; Basu and Ames, 1970; Bochner, 1972; David, 1973; Klineberg and Hull, 1979; Chataway and Berry, 1989); language fluency (Sewell and Davidsen, 1961; Gullahorn and Gullahorn, 1966; DiMarco, 1974), and cultural distance (Babiker, Cox and Miller, 1980; Ward and Searle, 1991). In relation to adjustment to university life, personality variables have received little attention and it is only relatively recently that the focus seems to be shifting in this direction. Initial studies focused on the authoritarian personality (e.g. Adorno, 1950; Mischel, 1965; Basu and Ames, 1970; Chang, 1973) while later studies tried to identify possible vulnerability factors predictive of poor adjustment (e.g. Davidson et al, 1950; Bean and Metzner, 1985; Chataway and Berry, 1989; Lu, 1991, 1994; Fisher et al, 1985, 1987; Riggio et al. 1993). Despite the fact that over many years home students have been repeatedly used as 'groups of convenience' for testing and investigating a number of theories in all areas of Psychology, only during the last fifteen years have home students as a group been considered to be of interest on their own right.

During the last fifteen years more attention has been given to the adjustment difficulties faced by home students especially in the United States, Canada and Australia (e.g. Cutrona, 1982; Shaver et al, 1986; Jones and Moore, 1989; Riggio et al., 1993), with few British studies (e.g. Fisher, 1985, 1989, 1991,; Brewin et al, 1989;). Fisher's studies of homesickness among boarding school pupils and first year university students in Scotland concluded that distance from home, decisional control over the move, commitment to the new situation and personality vulnerability factors (such as cognitive failure, trait anxiety and high

obsessionality) predisposed towards severe homesickness during such a transition. Brewin, Furnham and Howes (1989) studied some of the determinants of homesickness among first year students in two Universities in England (University of Leeds and University College of London) and found that anxious attachment and greater reliance on others predicted homesickness. Apart from these few studies there is a lack of research regarding the adjustment of first year university students in Britain, especially in relation to the role of personality variables and social support.

This lack of studies on the adjustment of home students becomes even more noticeable if the recent findings of research, such as in Social Support, Happiness and general Well-Being, Loneliness and Personality, are taken into consideration. Research in these areas seems to suggest consistently that a significant relationship exists between Personality, perceived Social Support and General Well-Being (e.g. Cheek and Buss, 1981; Stroed et al., 1977; Costa and McCrae, 1980, 1985). At the same time major studies on the adjustment of students to University life (e.g. Klineberg and Hull, 1979; Cutrona, 1982; Shaver et al, 1986) suggest that more research in this direction is required.

One of the most potentially 'promising' factors that should be taken into consideration are the concepts of Neuroticism and Extraversion (Eysenck, 1970; Eysenck and Eysenck, 1985). Research in many different areas of Psychology seems to suggest the possibility that Neuroticism and Extraversion may underlie many relationships that have been found between perceived Social Support, general Well-Being and Happiness (Costa and McCrae, 1985), overall satisfaction with current life and Adjustment, as well as a number of significant gender differences (Borys and Perlman, 1985). At the same time, recent research in Negative and Positive Affectivity- extended concepts of Neuroticism and Extraversion respectively -(e.g. Watson and Clark, 1984; Watson et al. 1986; 1988; 1989) suggests that Negative and Positive Affectivity might play a very significant role in the psychosocial adjustment of students to University life. To date, only a few studies have investigated the role of Extraversion (Searle

and Ward, 1990; Ward and Searle, 1991; Lu, 1991, 1994; Hohat et al. 1982, Zeldow et al. 1985) and even fewer the role of Neuroticism (Hojat et al. 1982; 1992; Riggio et al. 1993; Amelang-Manfred, 1976; Zeldow et al. 1985; Saklofske and Yackulic, 1989) in relation to students' psychosocial adjustment to University life. However, the diversity of definitions of Adjustment, the diversity of the measures used and variety of the different samples used are a problem in comparing the results of these studies.

Moreover, Achievement Motivation- another personality variable which although appearing relevant to overall psychosocial and academic adjustment to university- has not been studied adequately. Only one study investigated the relationship between Achievement Motivation and Personality in which Doi-Kiyoharu (1985) using Japanese student sample, reaching the conclusion that the relationship between Achievement Motivation and Personality may depend on Cultural Factors. Few studies seem to exist on the construction of measures of Achievement Motivation or on gender related differences and Achievement Motivation (Pillai, 1983; Modick, 1977), but no recent published studies have investigated Achievement Motivation in relation to Personality and Academic/ Psychosocial Adjustment to University life.

Another area that possibly deserves more attention than it has received over recent years is the concept of Coping, especially in relation to students' adjustment to university life. Coping behaviours are conscious strategies (cognitive and behavioural efforts) used by the individual when confronted with particular stressful events. It has been argued by a number of researchers (Fleischman, 1984; Miller, Brody and Summerton, 1988; Endler and Parker, 1990), that individuals may have traitlike personality predisposed coping styles/ strategies (which may be either adaptive or maladaptive) enabling individuals to cope with a variety of stressful events. However, Folkman and Lazarus (1986) argue for a model that places greater emphasis on the interaction between the person and the environment, viewing this relationship as a dynamic mutually reciprocal, bi-directional entity.

As Endler and Parker (1990) discuss, a very significant distinction in the coping literature is between Emotion-focused and Problem focused coping strategies, and most of the coping scales developed recently do include these broad two dimensions (e.g. Billings and Moos, 1981, 1984; Endler and Parker, 1990; Folkman and Lazarus, 1980, 1985; Pearlin and Schooler, 1978; Wong and Reker, 1984). Problem-oriented coping (i.e. coping with the problem that is causing the distress) might include activities such as finding out more information about the problems, or making up a list of priorities for tackling the problem. Emotion oriented coping (i.e. focused on regulating emotion-(Folkman et., 1986)) might include activities like trying not to feel angry or depressed, or daydreaming about the future. More generally, Endler and Parker (1990) propose that problem-focused coping refers to task-orientation, whereas emotion-focused coping refers to a person-orientation. The study of coping strategies in order to deal with unpleasant emotions and situations such as loneliness has been investigated by Saklofske and Yackulic (1989). Investigation of the coping strategies used by students in order to deal with homesickness, as well as with the examination stress, has not been adequately addressed and requires more detailed enquiry.

Furthermore, another point that requires extra attention is the fact that there seems to be a confusion in this area of research regarding the definition of adjustment to University. During the early years of research, the 1960's and the 1970's, adjustment was defined in terms of academic performance (e.g. Allen, 1965; Burke, 1968; Ford, 1969; Moore, 1970; Tellen, 1970). This was to be expected, given that one of the basic motives behind such research, especially on foreign students was the prediction of high academic performance and the prevention of a high number of drop-outs (Bochner and Furnahm, 1986). The hypothesis was that, at least in respect to foreign students, since the primary goal of many foreign students is academic, it is likely that there will be a strong relationship between academic performance and adjustment. Later studies defined adjustment in terms of psychosocial aspects, such as general physical and psychological well-being (e.g. Folkman et al. 1986; Chataway and

Berry, 1989;) and absence of loneliness (e.g. Cutrona, 1982; Shaver et al, 1986). Early studies suggested that positive psychosocial adjustment contributes to satisfactory academic achievement (Rising, 1968; Sharma, 1971). Nevertheless, it is still unclear whether academic adjustment defined in terms of academic performance is related in any way to psychosocial adjustment defined in terms of general well-being, satisfaction with social and academic aspects of university life and absence of any feelings of loneliness and depressed mood (e.g. Chataway and Berry, 1989). Very few studies can be found that actually tried to investigate the relationship between psychosocial and academic adjustment (e.g. Rotenberg and Morrison, 1991). Similarly, very few studies have tried to investigate the link between personality and academic performance (e.g. de Barbenza-Clarivel and Montoya-Osvalto, 1974, in India; Amelong-Manfred, 1976, in Germany; Nagpal-Wig 1975, in India; Green, Peters, and Webster, 1991, in Britain; Kuiper et al. 1989). Given the cultural diversity of the studies it is difficult to compare the results in a meaningful way.

In Britain, the only recent conducted study among students at an English University was designed to determine which of a range of personality variables, measured at the time of students entering an occupational therapy course related to first, second, third and final year results and placement ratings (Furnham and Mitchell, 1991). The authors predicted that both Neuroticism and Extraversion would be negatively associated with academic success. However, overall, there were few significant correlations; introversion was only related to academic performance in the first year, and to placement success in the third. Needs for nurturance, achievement and understanding also related to academic performance. This was one of the most well-organized longitudinal studies in this area running over a period of 4 years, and having more than one measures of academic performance. However, one of the very interesting issues that this paper failed to address was the relationship between overall psychosocial adjustment and academic performance. Given the lack of studies on this issue, further research in this direction is required.

The present study is an attempt to rectify some of the problems discussed earlier. The main aim of the study is threefold: (a) First, to investigate the relationship between personality variables (Extraversion, Neuroticism, Achievement Motivation), perceived social support and overall psychosocial adjustment to University life (measured in terms of absence of loneliness and overall satisfaction with several social and academic aspects of life at University); (b) Second, to investigate the relationship between coping with examination stress, psychosocial adjustment and academic performance, and (c) Third, to predict psychosocial adjustment to University life from a number of demographic, personality, coping and social support variables.

Procedure

A set of questionnaires were distributed to 183 first year Undergraduate students during the first two weeks of May, two weeks before the end of the academic year. Students were given the questionnaire in a class after a short presentation, which informed them about the aims of the study and assured them about the strict confidential treatment of their responses. Subjects were asked to fill in the questionnaire during the first twenty minutes of a two-hour practical class. Participation in this study was part of the course requirements (100% response rate). The sets of questionnaires were collected at the end of the class.

Subjects

The sample consisted of 72 (39%) male and 111 (60%) female students. Most of the students were single ($n=72$, 39%), with only 19 (10%) students being married/cohabiting or having a serious relationship and 2 students (1.0%) being divorced/separated. The average age of the group was 22.3 years ($sd=7.16$), with a range of 17-51 years.

Measures

The set of the questionnaires consisted of two parts: (a) in the first part data concerning age, sex, marital status and nationality were collected by means of a personal details form. A list of 16 social and academic problems likely to be experienced during the academic year, in a

yes-no format were included (e.g. problems with accommodation, homesickness, lack of academic guidance and framework etc.). Three general questions regarding subjective happiness and satisfaction with current life were also included, each measured on a 5-point Likert scale. Finally, an open-ended question asking students for suggestions that they believe could improve their life while at the University was also included. (b) The second part consisted of a number of valid, standardized and widely used questionnaires. More specifically, the questionnaires used were the following:

(a) Extraversion, Neuroticism, Psychoticism and Lie scale (Eysenck and Eysenck, 1981)

The Eysenck and Eysenck EPQ-R (1981) has been used in this study (the 48-item, short version scale) because it is valid, standardised and is the most widely used instrument measuring Introversion-Extraversion, Neuroticism and Psychoticism. For the present study the internal reliabilities were .91, .88, and .81, for Neuroticism, Extraversion and Psychoticism respectively.

(b) Achievement motivation (Argyle and Robinson, 1962)

Achievement motivation is a construct which refers to the desire to do well in order to attain an inner feeling of personal accomplishment (McClelland, 1961). Achievement motivation has frequently been assessed using scales which appear to be primarily indices of 'motive to achieve'. However, results reported by Argyle and Robinson (1962) suggested there may be different components within the personality construct which may be important in understanding how individual differences operate in regard to drive motivation. The Argyle and Robinson nAch scale was used to assess two aspects of achievement orientation :(a) 'hopes for success' (nAch+ve) and a 'fear of failure'(nAch-ve). Each subscale consisted of 5 positive and negative worded statements about motives to perform, achieve and excel in everyday type situations. These statements were scored on a scale from one to five. High scorers reflect high 'hopes for success' and a 'fear of failure' attributes. (Chay Yue Wah, 1990).

(c) Coping (Ways of Coping Checklist, Lazarus and Folkman, 1985)

Coping was assessed with the 66-item revised Ways of Coping checklist (Folkman and Lazarus, 1985; 1986). The checklist contains a broad range of coping and behavioural strategies that people use to manage internal and external demands in a stressful encounter; in this case the first year examinations. Two broad categories of coping can be identified: a) problem-focusing and, b) emotion-focusing. In addition, a factor analysis by Folkman and Lazarus produced eight scales: a) confrontive coping (e.g. 'stood my ground and fought for what I wanted'; $\alpha = .70$); b) distancing (e.g. 'went on as if nothing had happened'; $\alpha = .61$); c) self-control (e.g. 'I tried to keep my feelings to myself'; $\alpha = .70$); d) seeking social support (e.g. 'accepted sympathy and understanding from someone' $\alpha = .76$); e) accepting responsibility (e.g. 'criticized or lectured myself'; $\alpha = .66$); f) escape-avoidance ('wished that the situation would go away or somehow be over with'; $\alpha = .72$); g) planful problem-solving (e.g. 'I knew what had to be done, so I doubled my efforts to make things work'; $\alpha = .68$); h) positive reappraisal (e.g. 'I changed or grew as a person in a good way'; $\alpha = .79$).

Subjects are asked to reconstruct recent stressful encounters and describe what they thought, felt and did. Students were asked to describe in the present study how they felt and how they coped with the examination stress during the previous few weeks. For each coping item students indicated on a 4-point scale (0-3) the extent to which they had used that strategy in the problem described.

(d) Global Social Support (Cohen et al., 1985)

Global Social Support was assessed using the student form of the Interpersonal Support Evaluation List (ISEL, Cohen et colleagues, 1985). The ISEL-student form consists of 48 items in the statement format, concerning the perceived availability of social support resources. The items are counterbalanced for social desirability. Items were developed on theoretical grounds to cover the domain of socially supportive elements of relationships which students might be expected to experience (Cohen and Hoberman, 1983).

It has 4 sub-scales of twelve item statements each, and each sub-scale is constructed to measure a different element of Social Support. The four sub-scales refer to the following elements: a) Appraisal support, b) Belonging Support, c) Tangible Support, and finally, d) Esteem Support. Respondents indicate whether each statement is probably true or false for themselves, at the time of administering the questionnaire. The ISEL is scored by counting the number of responses indicating support for each of the four sub-scales. An overall index can be calculated by summing up the support scores across the four sub-scales. Reported internal reliabilities range from .88 (alpha coeff.) to .90 for the general population form of the ISEL. It also has a good test-retest reliability (.70) over a six-week interval for the overall score and the four subscales scores (Cohen, Kamarck, Mermelstein and Hoberman, 1985). The internal reliability for the present study was .92.

(e) Loneliness

Although there is a number of scales available for measuring Loneliness, the R-UCLA scale is the most widely used (Russel, Peplau and Cutrona, 1980). The R-UCLA loneliness scale has a high internal consistency (alpha = .94) and a number of studies indicate good concurrent and discriminant validity. The R-UCLA loneliness scale consists of twenty items in a statement format. Subjects indicate how often they feel the way described in each of the statements, and the answers range from 'never' to 'often'. All items are counterbalanced for Social Desirability. The overall score is calculated by adding each item's scores after reversing the positive items, so that the higher the overall score, the higher the degree of the experienced Loneliness. For the present study the reliability was .96

(f) Adaptation to University Life

(College Adaptation Questionnaire, Crombag, H. 1968; Van Rooijen, 1986)

The College Adaptation Questionnaire (CAQ), constructed by Crombag (1968) to assess how well students have adjusted to University life, is a self-report instrument consisting of 18 statements. Respondents indicate on a seven point rating scale how well each statement

applies. Eight statements indicate good adjustment and ten statements indicate the lack of it. The total score for adjustment is the sum of the item scores, after having reflected the items which indicate a poor adaptation. The internal reliability in the present study was .92

(h) **Academic performance** was also assessed for a subsample of students (44.2%) from whom consent had been granted to get access to their academic records. The average psychology grade was computed for the two semesters from their marks in six basic courses.

Data Analysis

Comparison between three groups of 'high', 'intermediate', and 'low' levels of psychosocial adjustment were conducted by means of ONEWAY analysis of variance. Relationships between variables were investigated by means of the Pearson correlations. Finally, prediction of psychosocial adjustment to University life was done by means of multiple hierarchical regression analysis.

RESULTS

The means, standard deviations and t-tests for differences between male and female students in all the Personality, Social Support and outcome measures are presented in table 1. No significant differences between male and female students were found in any of the personality variables, including the Achievement Motivation scales. However, there were a number of significant differences found in Social Support ($t=-2.54$, $df=181$, $p<.05$), with males having a lower overall mean score; in Loneliness ($t=2.82$, $df=181$, $p<.01$) with male students being more lonely than female students, and finally in overall Adjustment to University life ($t=-2.34$ $df=181$, $p<.05$) with females being better adjusted than males.

Table 10.1a Means and standard deviations of personality measures for first year males (n=72) and females (n=111)

MEASURE	MEAN (SD)	T-TEST	DF	p
1. Neuroticism				
males	5.34 (3.39)			
females	5.84 (3.11)			
overall	5.65 (3.22)	-1.02	181	ns
2. Extraversion				
males	8.31 (3.28)			
females	9.00 (3.16)			
overall	8.73 (3.22)	-1.42	181	ns
3. Psychoticism				
males	3.29 (2.01)			
females	2.27 (1.72)			
overall	2.67 (1.90)	3.51	181	ns
4. Achpo				
males	18.45 (3.24)			
females	18.34 (2.45)			
overall	18.39 (2.78)	.27	181	ns
5. Achne				
males	11.76 (3.36)			
females	12.60 (3.43)			
overall	12.26 (3.42)	-1.62	181	ns

Key: Achpo= hopes for success

Achne= fear of failure

Table 10.1b Means and standard deviations for Social Support and Adjustment variables for first year males (n=72) and females (n=111)

MEASURE	MEAN (SD)	T-TEST	DF	p
1. Social Support				
males	73.51 (6.35)			
females	75.59 (4.59)			
overall	74.77 (5.43)	-2.54	181	< .05
2. Loneliness				
males	37.09 (10.10)			
females	32.92 (9.56)			
overall	34.56 (9.96)	2.82	181	< .01
3. University adjustment				
males	86.30 (15.42)			
females	91.61 (14.72)			
overall	89.52 (15.19)	-2.34	181	< .05

Comparison between different levels of overall psychosocial Adjustment to University life

Three groups of students with high, intermediate and low overall adjustment to University life were determined by selecting the top and bottom 27%, and the middle 46% of the scores (Saklofske and Yackulic, 1988). A number of ONEWAY analyses of variance showed that the three groups differed in almost all the Personality, Social Support and Loneliness variables. The results from the analyses are summarized in Table 2. The group lowest in Adjustment to University life in comparison to the other two groups had the highest score in Neuroticism, the lowest score in Extraversion, and the lowest score in Social Support and overall Happiness. Finally, this group had the highest score in Loneliness. However, it is noteworthy that academic performance measured by the two semesters average grade in 6 courses, did not seem to differentiate as regards adjustment to University life, the well-adjusted from the poorly adjusted students. The same procedure was applied to three groups of loneliness, giving very similar results with the three groups of adjustment to university life (table 3).

Relationships between variables

A number of very interesting correlations were computed (table 4). More specifically: Neuroticism correlated significantly negatively with Achpo ($-.25, p < .001$) and positively with Achne ($.42, p < .001$). Extraversion correlated positively with Achpo ($.31, P, .001$) and negatively Achne ($-.22, p < .001$). Thus, students with a high score in Neuroticism, appear to have fewer hopes for success and greater fear of failure, whereas highly extravert students have greater hopes for success and less fear of failure.

Social Support correlated negatively with Neuroticism ($-.40, p < .001$), Achne ($-.45, p < .001$) and Loneliness ($-.81, p < .001$), and positively with Extraversion ($.53, p < .001$) and Achpo ($.35, p < .001$). Social Support also correlated with all the General Well-Being and Adjustment measures: with Happiness ($.41, p < .001$), and with overall Adjustment to

Table 10.2 ONEWAY analysis of variance for three groups of overall University Adjustment

MEASURE	Group 1	Group 2	Group 3	F(2, 180)	P	GROUPS*
1. Neuroticism	8.07	5.60	3.70	F=15.29	<.001	1-2, 1-3, 2-3
2. Extraversion	5.92	8.92	10.45	F=17.87	<.001	1-2, 1-3, 2-3
3. Achpo	17.11	18.42	19.35	F=5.39	<.01	1-2, 1-3
4. Achne	11.38	12.00	14.51	F=8.84	<.001	1-2, 1-3
5. Social Support	51.88	57.28	58.70	F=43.65	<.001	1-2, 1-3, 2-3
6. Happiness	3.33	4.41	5.35	F=34.03	<.001	1-2, 1-3, 2-3

Group I: Overall Adjustment at University <74

Group II :75 < OA <104

Group III : OA >104

Table 10.3 ONEWAY analysis of variance for three groups of Loneliness

MEASURE	Group 1	Group 2	Group 3	F(2, 180)	p	GROUPS
1. Neuroticism	4.34	5.69	8.73	F=18.22	<.001	1-2, 1-3, 2-3
2. Extraversion	10.82	8.49	4.56	F=48.39	<.001	1-2, 1-3, 2-3
3. Achpo	19.72	18.07	16.39	F=15.27	<.001	1-2, 1-3, 2-3
4. Achne	10.74	12.34	15.78	F=22.08	<.001	1-2, 1-3, 2-3
5. Social Support	58.87	57.19	49.21	F=120.71	<.001	1-2, 1-3, 2-3
6. Problems	1.50	2.49	4.17	F=23.14	<.001	1-2, 1-3, 2-3
7. Happiness	4.84	4.38	3.47	F=14.88	<.001	1-2, 1-3, 2-3

Group I : Loneliness < 28

Group II : 29 < Loneliness < 48

Group III: Loneliness > 49

University life (.63, $p < .001$). Thus, students who report being socially supported appear also to be extraverted, less anxious, with more hopes for success and less fear of failure, and at the same time they also appear to be overall better adjusted to University life.

Loneliness correlated with Neuroticism (.47, $p < .001$), Extraversion (-.61, $p < .001$), as well as with Achpo (-.35, $p < .001$), with Achne (.44, $p < .001$) and highly significantly with Social Support (-.81, $p < .001$). Thus lonely students tended also to be more anxious, more introvert, and perceived themselves as less socially supported. Moreover, lonely students appear to have more needs to avoid failure, and fewer hopes for success. Overall Adjustment to University correlated with Neuroticism (-.41, $p < .001$) and Extraversion (.46, $p < .001$), with Social Support (.63, $p < .001$), as well as with Happiness (.61, $p < .001$). In other words, poorly adjusted students tended to be more anxious, more introvert, perceiving themselves as less socially supported and overall more unhappy with their current life.

However, it is noteworthy that academic performance, measured by objective means (the average grade of six compulsory courses over the year), did not correlate with any of the Personality, Social Support, perceived Happiness, Loneliness or even with overall psychosocial Adjustment to University life. The only significant correlation found for academic performance was with the coping strategy of 'Distancing oneself' (-.25, $p < .001$).

Emotion-focused coping correlated significantly with Neuroticism (.26, $p < .001$), and with the number of Problems reported (.19, $p < .01$), whereas Problem-focused coping correlated only with Achpo (.26, $p < .001$) only.

In respect now to the sub-scales of coping: Confrontive coping did not correlate with any Personality or psychosocial adjustment variable. 'Self-control' correlated significantly with Neuroticism (.19, $p < .01$) and Extraversion (-.21, $p < .01$), with Social Support (-.23, $p < .01$) and Loneliness (.32, $p < .001$), with Happiness (-.19, $p < .05$) and overall Adjustment

Table 10.4 Correlations for Home students

MEASURE	1	2	3	4	5	6	7	8	9	10	11	12
1.Neurot	1.00											
2.Extrav	-.31**	1.00										
3.Psycho	-.02	-.12	1.00									
4.nAch +ve	-.25**	.31**	-.14	1.00								
5.nAch -ve	.42**	.22*	.01	-.55**	1.00							
6.Social Support	-.43**	.53**	-.13	.35**	-.46**	1.00						
7.Loneli	.47**	-.61**	.16	-.35**	.44**	-.82**	1.00					
8.Happin	-.41**	.22*	-.12	.23*	-.23*	.40**	-.46**	1.00				
9.Adjust	-.41**	.46**	-.23*	.31**	-.33**	.63**	-.74**	.61**	1.00			
10. Mark	.06	.19	.15	.07	-.11	-.01	-.03	.00	.06	1.00		
11. EC	.26**	.06	.08	.09	.12	-.07	.08	-.08	-.07	-.10	1.00	
12. PC	.07	.18	.04	.26**	-.14	.04	-.04	-.00	.00	-.02	.26*	1

** Significant at p<.001 * Significant at p<.01
N=183

Key: EC=Emotion-focused coping
PC=Problem-focused coping

to university ($-.29, p < .001$). 'Seeking Social Support' correlated only with Extraversion ($.27, p < .001$); 'Accepting responsibility' correlated with Neuroticism ($.24, p < .01$) and psychosocial Adjustment to university ($-.24, p < .01$). 'Escape-avoidance' correlated with Neuroticism ($.30, p < .001$) and Social Support ($-.30, p < .01$), with Loneliness ($.22, p < .01$) and Adjustment to University ($-.20, p < .01$). 'Planful problem-solving' did not correlate with any variable, while 'Positive Re-appraisal' correlated with Extraversion ($.20, p < .01$) only. As previously mentioned 'Distancing' was actually the only variable that correlated with academic performance.

(C) Predicting Adaptation to University and Loneliness

A hierarchical multiple regression model was used to predict Loneliness and overall Adjustment to University life from a number of demographic, Personality and perceived Social Support variables, as well as from Ways of Coping with Examination stress (Emotion focused coping vs Problem focused coping). A number of hierarchical multiple regression analyses were used and the variables were entered in the equation in three predetermined steps: (a) demographic variables were entered first (age, sex, marital status), (b) Personality variables next (Extraversion, Neuroticism, Achpo and Achne), and finally, (c) perceived Social Support and Ways of Coping (Emotion-focused and Problem-focused) last. None of the demographic variables was a significant predictor of Adjustment to University life. Neuroticism ($B = -.15, p < .05$) and Extraversion ($B = .16, p < .05$) were the only significant personality predictors, and finally Social Support ($B = .45, p < .001$) was highly significant in predicting Adjustment to University life. The regression model accounted for 44% of the explained variance.

The same regression model was used to predict Loneliness from Demographic, Personality, Social Support variables and Ways of Coping with examination stress. From the demographic variables, only gender was a significant predictor ($B = .08, p < .05$). Neuroticism ($B = .11, p < .05$) and Extraversion ($B = -.23, p < .001$) were the only significant personality predictors

Table 10.5 Predicting Overall Psychosocial Adjustment to University life from Demographic variables, Personality, Social Support and Coping

Source	Mult.R	Adjust .R ²	Fchang	DF	p	B
1. Demographic variables	.19	.025	3.23	3,173	<.05	
Sex						.09
Age						.09
Marital Status						.08
2. Personality	.59	.33	20.71	6,170	<.001	
Neuroticism						-.15*
Extraversion						.16*
Achpo						.09
Achne						.00
3. Social Support-Coping	.68	.44	11.75	9,167	<.001	
Social Support						.45***
Emotion-focused Coping						.02
Problem-focused Coping						-.07

Constant=24, F (9, 167)=16.11 , Sign.F= <.001

Significance *** <.001 ** <.01 * <.05

Key: Achpo= Hopes for Success
Achne= Fear of Failure

Table 10.6 Predicting Loneliness from demographic variables, Personality, Social Support and Coping

Source	Mult.R	Adjust .R ²	Fchang	DF	p	B
1. Demographic variables	.23	.04	4.64	3,173	< .05	
Sex						.08*
Age						-.08
Marital Status						-.07
2. Personality	.75	.54	48.74	6,170	< .001	
Neuroticism						.11*
Extraversion						-.23***
Achpo						-.003
Achne						.09
3. Social Support-Coping	.86	.72	37.84	9,167	< .001	
Social Support						-.58***
Emotion-focused Coping						.02
Problem-focused Coping						-.002

Constant=114.5 , F (9,167)=51.93 , Sign.F= <.001

of Loneliness, and finally Social Support ($B = -.58$, $p < .001$) which was the single most significant predictor of Loneliness. 72% of the variance was explained. Results are summarised in tables 5 and 6.

Academic performance (measured with the average grade in 6 compulsory courses) when entered last in the equation, accounted for very little (non-significant) change. Furthermore, none of the interactions between variables were significant when entered as the last step. Finally, when all the coping subscales were entered in the equation in the last step, only 'Self-Control' was a significant predictor of overall psychosocial Adjustment ($F_{\text{change}} = 3.94$, $p < .05$, $B = -.12$)

Discussion

The present study yielded a number of findings which are related to home students' psychosocial and academic adjustment to University life.

Comparison between male and female students showed a number of significant differences: Females in comparison to males regarded themselves as being more socially supported, less lonely and overall better adjusted to University life. These differences seem to be in line with earlier research (Sundberg, 1988; Brewin et al. 1989). In respect to differences in Social Support, it has been argued that females form different kinds of relationships, with differing attributes (Perl and Trickett-Edison, 1988), and are significantly more likely than males to be higher in personal self-disclosure to others, particularly in times of stress (Brewin et al, 1989). In respect to Loneliness, although it is likely that the perception of a higher availability of Social Support may reduce feelings of Loneliness, it has also been argued that males and females have different standards in evaluating whether they are lonely (Stokes and Levin, 1986). In addition, Saklofske and Yackulic (1989) argue that women pay greater importance on interpersonal relationships. Men are stereotyped as less emotionally expressive and interpersonally sensitive, and may elicit negative responses for expressing loneliness. Furthermore, they argue that the interaction between differences in Emotionality (as

manifested often in differences on Neuroticism), extraversion, socially prescribed sex roles and socialization processes could result in differences both in the expression and felt intensity of loneliness.

Comparisons between the three groups of high, intermediate and low overall Adjustment to University life showed a number of significant differences between well-adjusted and poorly adjusted students, in respect to Personality, as well as in respect to perceived Social Support. Students who were well-adjusted to University life had a lower score in Neuroticism, a higher score in Extraversion, a lower score in Social Inhibition and a higher score in perceived Social Support than those students who were poorly adjusted. These results appear to be in line with earlier cross-sectional studies (Chapters 7, 8, 9). Comparisons between three levels of loneliness, which has been used as another index of poor psychosocial adjustment, gave very similar results. More specifically, the group of students highest in Loneliness in comparison with the other two groups of 'intermediate' and 'low' Loneliness, appeared to be more anxious, more introvert and perceived themselves as less socially supported. This result appears to be in line with earlier research on personality correlates of loneliness (e.g. Saklofske and Yackulick, 1989; Hojat, 1982; Jones et al., 1981). Moreover, lonely students appeared to have fewer hopes for success (Achpo) and more fears of failure (Achne).

Achievement Motivation, the desire to do well in order to attain an inner feeling of personal accomplishment (McClelland, 1961), correlated with the two major Personality dimensions of Extraversion and Neuroticism. 'Hopes for success' correlated positively with Extraversion and negatively with Neuroticism, whereas 'Fear of failure' correlated negatively with Extraversion and positively with Neuroticism. In general there has been very little information reported about this relationship in earlier studies. Yue Wah Chay (1990) in his study of individual differences and stress in occupational settings, reported similar relationships, with Neuroticism correlating positively with Ach-ve (.56, $p < .01$) but not with Ach+ve, and Extraversion correlating positively with Ach+ve (.44, $p < .01$) and negatively with Ach-ve

(-.60, $p < .01$).

Hopes for success correlated positively with Social Support, Happiness and Adjustment to University life and highly negatively with Loneliness. Again in the only study that refer to such a relationship in an occupational setting (Yue Wah Chay, 1990), 'hopes for success' were positively related (.26, $p < .01$), and 'fear of failure' was negatively (-.31, $p < .01$) related to Social Support. In the present study, Fear of Failure was related positively to Loneliness and negatively to Social Support, Happiness and overall Adjustment to University, whereas hopes for success were negatively related to Loneliness. Although no recent study to our knowledge have investigated Achievement Motivation in relation to reported loneliness, the results of the present study, appear to be in line with earlier research that shows that lonely individuals tend to make internal, self-derogating attributions (Cutrona, 1982; Levin and Stokes, 1986) and they tend to blame their loneliness on personal deficits rather than on situational constraints (Levin and Stokes, 1986). Moreover, they have a significantly poor self-esteem which appears to be highly related to their fear of failure in social relationships. Given that the Achievement Motivation scales used in the present study measure hopes for achievement and fear of failure in the academic/work area, the results might indicate that this fear of failure and low hopes for achievement are not only present regarding the lonely individuals' attitude toward relationships, but also toward other areas of their life, such as general self-achievement.

A study of a possible relationship between Coping with examination stress, Personality, and overall psychosocial Adjustment did not reveal many significant relationships. As was expected, from the subscales of Coping, 'Self-control' correlated positively with Neuroticism and Loneliness, and negatively with Extraversion, Social Support, Happiness and overall Adjustment to University life. 'Seeking Social Support' correlated positively with Extraversion. 'Accepting responsibility' correlated positively with Neuroticism, but negatively with Adjustment to the University. Emotion-focused coping correlated with Neuroticism only,

and Problem-focused coping with Hopes for success, but with no other variable. Although the reported relationship between Emotion-focused coping and Neuroticism is in line with earlier research (e.g. Saklofske and Yackulic, 1989), the latter finding that Problem-focused coping correlated significantly only with Hopes for success and not with Extraversion was different from what earlier research findings suggest (Saklofske and Yackulic, 1989).

Last but not least, academic performance during the first year did not correlate with any of the Personality, Social Support or any other variables of psychosocial Adjustment to university life. Earlier research seems to have given rather contradictory results in respect to the relationship between personality and academic performance. For instance studies finding a relationship (de Bartenza-Clarivel and Montoya Osvalda, 1974) found that Anxiety and Neuroticism correlated negatively with academic achievement, and that extraverted students were academically slightly better than introverted. Kline and Gale (1971) in their review of eight studies found that introversion correlated significantly positively with academic performance, in six of the seven studies. However, in their own study they failed to support this finding. Furnham and Mitchell (1991) in a 4-year longitudinal study with occupational therapy students found that although there were overall few significant correlations, introversion was related to academic performance in the first year and placement success in the third year, whereas extraversion was positively related to the students assessment by their supervisor of the occupational placement. In the present study it seems surprising that academic performance did not correlate with the Achievement Motivation scales (Hopes for success and Fear of failure). Entwistle (1972) suggested that 'it is dangerous to assume wide generality in statements about the relationship between personality and academic attainment. Age, nationality, sex, geographic area, classroom organization, class size, teaching methods and teachers' personality may all affect these relationships to some extent' (p.147, from Furnham and Mitchell, 1991).

Furthermore, in the present study academic performance did not correlate with Social Support, Loneliness, Happiness or overall adjustment to University. In other words, it appears that psychosocial adjustment to University life and general well-being are independent of academic performance. A number of researchers in the past have argued that academic performance must be highly related to overall psychosocial adjustment, at least in respect to foreign students, given that their primary goal is academic. Other researchers (Selby and Woods, 1966; Hull, 1978) have shown that, in a 'high pressure' University in the States, where competition is very high and performance excellence is one of the most significant criteria for acceptance, psychosocial adjustment followed the highs and lows of academic performance. However, the present study on first year home students failed to show any relationship between academic and psychosocial adjustment. In addition, no particular Way of Coping with the examination stress appeared to correlate with academic performance, with the exception of 'distancing oneself'. This relationship between 'distancing oneself' as regards the examination stress and academic performance, may indicate that this particular approach to handling stress affects negatively the students' academic performance.

There are certain limitations to the present investigation. The first limitation regards the study of Achievement Motivation in relation to Personality, Social Support and psychosocial Adjustment in a group of University students. Arguably, such a group is likely to be amongst some of the highest achievers in society and one would therefore expect them to score highly on the achievement motivation measures. Therefore, this suggests that the results should be interpreted with caution, and further research with different samples is required in order to generalise the results beyond a student sample. The second limitation regards the relatively small number of students for whom academic records measuring their performance on 6 compulsory courses were available. It is possible that this particular sub-sample is not a representative sample of the first year students. However, the large range of marks does not appear to support such a possibility. Finally, a third limitation regards the fact that participation in the present study was part of the course requirements. It is difficult to assess

how this might have influenced replies. However, a great deal of care was taken to assure students of the strictly confidential treatment of their responses, which at point of coding and analysis was anonymous. Furthermore, comparison of the group Lie score in the EPQ-R with the Lie score of the same student group in earlier studies by the authors, did not show any *significant difference*. Moreover, a great deal of attention was put into identifying univariate and multivariate outliers and were taken into consideration in the subsequent statistical analysis.

Overall, the present study appears to be in line with earlier research (Chapters 7, 8, 9) on the relationship between Personality, Social Support and overall Adjustment to University life for home and non-home students. These earlier studies supported the importance of personality in the successful psychosocial Adjustment to University life, as did the present study. However, the present study also showed that no significant relationship appears to exist between academic performance and psychosocial Adjustment to University life, neither between Personality variables or ways of Coping with the examination stress and academic performance. The present study appears to support the necessity for studies in the area with longitudinal design which could further contribute to our knowledge of psychosocial and academic Adjustment during the entire period of University study.

CHAPTER 11: STUDY VI

**Transition to University: A Longitudinal study on
the Psychosocial Adjustment of Home students in
relation to Personality, Social Support and
Loneliness**

Abstract: The main aim of this study is threefold: (a) to compare 'chronically' and 'transiently' lonely students, (b) to study the stability of the two major personality dimensions (Extraversion and Neuroticism), perceived Social Support and Loneliness, over the first academic year, and (c) to investigate the relative contribution of Personality and perceived Social Support to the prediction of eventual psychosocial Adjustment at University. A subsidiary aim was to investigate any personality differences between those students who do or do not develop a satisfactory friendly relationship during the early stages of transition. In the first stage, 6 weeks prior to arrival at University, 72 students participated; in the second stage, 2 weeks after arrival at University, 181 first year students took part, and in the third stage, 2 weeks before the end of the academic year, 183 first year students participated. The results indicated that: (a) Chronically lonely students, in comparison to transiently lonely students, had higher scores in Neuroticism and Social Inhibition, and lower scores in Extraversion and Self-Esteem, when assessed 2 weeks after arrival. (b) Over the first academic year, a significant increase, in absolute terms, was observed in Extraversion and perceived Social Support, and a decrease in Neuroticism and Loneliness,. However, high longitudinal correlations for the Personality, Social Support and Loneliness measures of these constructs, indicated a relative stability. (c) Personality and perceived Social Support contributed significantly to the prediction of psychosocial Adjustment at the end of the academic year. Finally, students who did not develop a relationship early on in the transition process, in comparison with those who did, were prior to University attendance, more extravert, less socially inhibited, with a more positive perception of self; they also perceived themselves as being better socially supported and less lonely. Results are discussed with references to the relative literature, with particular regard to the Social Network Mediation Model and to the Cognitive Bias Model.

Introduction

In the previous five chapters 5 cross-sectional studies which took place in University of Stirling, during the academic year 1992-1993, were described and discussed. In the previous studies the focus was on the psychosocial and academic adjustment to university life of home and non-home students. On the basis of theoretical and empirical work reviewed earlier, adjustment to university life was viewed in relation to personality variables, dysfunctional attitudes and perceived social support, bearing in mind the cultural differences and the effect of such differences on adjustment.

An extension of this approach followed in the previous chapters forms the basis of the work discussed in the present studies. Thus, in these studies the focus is on the adjustment process to University life of first year Undergraduates, home students only. Given that the previous cross-sectional studies indicated that personality and social support were significant correlates of adjustment to University, these studies aim at investigating more systematically this relationship, using a longitudinal design.

Introduction to the present study

Research on the adjustment of students over the last thirty years has been done mainly on the study of 'non-native', 'foreign', 'overseas' or non-home students (Bochner and Furnham, 1986). One of the possible reasons for this was the great influence of intercultural research and the concept of 'culture shock' (Oberg, 1960), focusing on the adjustment process of young voluntary workers, businessmen, immigrants, refugees and finally students. Another reason is possibly the very high number of foreign students in universities worldwide. The majority of these studies on the adjustment process of students have taken place in universities in the United States, Canada and Australia (e.g. Cutrona, 1982; Shaver et al., 1986; Chataway and Berry, 1989; Bochner and Furnham, 1986; Ward and Searle, 1991), whereas in Britain there is a much more limited number of studies on the subject (e.g. Cox, Babiker and Miller, 1980; Lu, 1990).

A number of different factors have been investigated as regards their contribution to students' (particularly non-home students) successful or poor adjustment to University life such as the Cultural Distance or cultural dissimilarity between students' home culture and host culture (Babiker, Cox and Miller, 1980; Bochner and Furnham 1986; Ward and Searle, 1991); previous experience of sojourn (Amir, 1969; Basu and Ames, 1970; Bochner, 1972; David, 1973; Chataway and Berry, 1989; Ward and Searle, 1990; 1991); language fluency (Sewell and Davidsen, 1961; Gullahorn and Gullahorn, 1966; DiMarco, 1974; Chataway and Berry, 1989); the amount of social interaction particularly with people of the host country (Klineberg and Hull, 1979; Bochner and Furnham, 1986; Ward and Searle, 1991) and so forth. Such studies have concentrated on the social, environmental and cultural aspects that may influence students' ability to adjust satisfactorily. Unfortunately there has been a relative lack of studies concerning individual differences, and in particular personality differences that might predispose to successful or poor adjustment. Initial studies focused on the authoritarian personality (Adorno, 1950; Mischel, 1965; Basu and Ames, 1970; Chang, 1973), while more recent studies tried to identify possible vulnerability factors, predictive of poor adjustment and homesickness (Davidson et al, 1950; Bean and Metzner, 1985; Chartrand, 1990; Fischer, 1989; 1991; Furnham and Mitchell, 1991; Brewin, Furnham and Howes, 1989; Lu, 1989; Riggio et al., 1993; Ward and Searle, 1991). Church (1982) and Bochner and Furnham (1986) give two excellent reviews of the relevant literature.

During the last fifteen years, a small number of longitudinal studies which attempt to identify possible factors that lead to poor adjustment among students have taken place mostly in the United States, and to a lesser extent in Britain. Klineberg and Hull (1979) in their very well-organized international study on the adjustment process and problems experienced by foreign students in eleven countries worldwide, referred to previous experience of sojourn and contact with host nationals as two of the best correlates of successful adjustment. In their conclusions they emphasize strongly that more research on the role of personality variables to the psychosocial and academic adjustment of students is required.

In one of the best well-organized studies of the adjustment of home students, Cutrona (1982) investigated loneliness as one of the basic dimensions of poor psychosocial adjustment among home students. One of the conclusions was that the two best predictors of Loneliness were: (a) attributing personal loneliness to internal causes such as shyness, fear of rejection, lack of knowledge of how to initiate relationships or personality, and (b) negative expectations about future relationships. More specifically, the best predictors of recovery from loneliness were 'satisfaction with personality', 'believing that personality is the cause of loneliness', 'lowered standards/goals for social relationships', and 'expecting social relationships to improve'. Furthermore, one of the key findings of the study was the importance of subjective satisfaction with relationships rather than the number of relationships or the frequency of contact. Cutrona suggests strongly that instead of students blaming their own enduring personality traits as causing loneliness, recognition of other environmental factors such as large competitive lecture classes, or living in an impersonal dormitory) should also be taken into account. Thus, it is recommended by Cutrona (1982) that students' energies should be used to successfully change environmental factors rather than trying to change their personality. However, change of certain environmental factors that may contribute to loneliness, such as large classes, dormitory accommodation etc. may be beyond students' direct control.

Recent research and theory developments in personality seem to support the existence of an enduring personality trait, Negative Affectivity (Watson and Clark, 1984), which may be quite relevant to Cutrona's results. People high in Negative Affectivity-which is conceptualized as having Neuroticism at its core-tend to be distressed and upset, even in the absence of any overt stress, and tend to have a negative view of self, others and the world in general. Negative Affectivity is assumed to centre on conscious, subjective experience rather than on an objective condition; it seems to emphasize how people feel about themselves, the others and the world in general rather than how effectively they may actually handle themselves in the world. Furthermore, poor self-esteem and the overall negative

mood of high Negative Affectivity individuals seem to be linked, up to a degree, to their tendency to dwell upon and magnify mistakes, frustration, dissatisfaction and threats. Those better able to put unpleasant experiences behind them (e.g. individuals low in Negative Affectivity) are expected to feel better about themselves, others and the world in general (Watson and Clark, 1984). In summary, Negative Affectivity is viewed as a unitary, but at the same time multifaceted construct, characterized by a number of distressed mood states such as anxiety, tension and worry, which are central, but also anger, frustration, hostility, guilt, worthlessness, feelings of rejection, sadness, loneliness, discomfort, irritability are frequently experienced by high in Negative Affectivity individuals, even in the absence of obvious stressors (Watson and Clark, 1984; Watson and Tellegen, 1985; Clark and Watson, 1991).

Furthermore, research in many different areas of Psychology seems to suggest the possibility that Neuroticism and Extraversion—the central concepts of Negative and Positive Affectivity—may underlie many relationships that have been found between perceived Social Support, General Well-Being and Happiness (Costa and McCrae, 1985), overall satisfaction with current life and Adjustment, as well as a number of significant gender differences (Borys and Perlman, 1985). At the same time, recent research in Personality, Dysfunctional Attitudes and students' psychosocial Adjustment to University life (Chapter 10) as well as an overview of earlier research in the area (e.g. Watson and Clark, 1984; Watson et al. 1986; 1988; 1989) suggests that Negative and Positive Affectivity might play a very significant role in the psychosocial adjustment of students to University life. To date, only a few studies have investigated the role of Extraversion (Searle and Ward, 1990; Ward and Searle, 1991; Lu, 1991, 1994; Hohat et al. 1982, Zeldow et al. 1985; Chapters 7, 8, 9, 10) and even fewer the role of Neuroticism (Hojat et al. 1982; 1992; Riggio et al. 1993; Amelang-Manfred, 1976; Zeldow et al. 1985; Saklofske and Yackulic, 1989; Chapters 7, 8, 9, 10) on students' psychosocial Adjustment. However, the diversity of definitions of Adjustment, of the measures used and of the different samples used are a problem in comparing the results of

Although Cutrona (1982) in her longitudinal study actually argues against emphasizing personality factors in such research and rather argues for more emphasis on environmental and cognitive variables, it seems likely from what has been discussed, that other factors, in particular major personality predispositions such as Neuroticism/ Negative Affectivity and Extraversion/Positive Affectivity may underlie the very interesting results of the New Student Study (Cutrona, 1982). More research in this direction could prove fruitful.

Furthermore, Shaver, Furmhan and Buhrmester (1986) going one step further, in their one year longitudinal study, identified lack of social skills as one of the basic predictors of poor psychosocial adjustment, as did Riggio et al (1993). Moreover, earlier cross-sectional studies on the adjustment of both home and non-home students in the University of Stirling (Chapter 7, 8, 9, 10) showed that perceived social inhibition and perceived social competence were very good predictors of social support, loneliness, and finally of overall psychosocial adjustment to university life. From what has been discussed above, it seems quite plausible to hypothesize that enduring personality predispositions (such as Neuroticism/Negative Affectivity, and Extraversion/Positive Affectivity) as well as perceived social inhibition will be significant predictors of psychosocial adjustment in undergraduate students, over the first year of transition to university.

Jones and Moore (1989) in trying to determine whether changes in loneliness over time were related to changes in the quality and quantity of social support during the first academic year of home undergraduates, found that loneliness and social support variables tended to remain stable over a period of two months. In other words, one of their main results was that students who at the beginning of the academic year were lonely, and most lacking the quality and quantity of social support available to them, were generally the students who were lonely and lacking in support two months later (Jones and Moore, pp. 154). They also suggested that a follow-up assessment after a greater period of time might have resulted in greater variation in both loneliness and social support, but unfortunately they did not report such results. It

would therefore appear to be of interest . students were followed-up over a longer period during the first academic year and assessed on a wide variety of variables including personality, social support and loneliness.

In Britain, over the last ten years very few longitudinal studies have been conducted, Fisher et al. (1985) in her studies on correlates of Homesickness among first year Undergraduate students, concluded that lower levels of responsibility for the decision to go to university and a greater geographical distance from home were the best predictors of Homesickness. In a later study (1987, 1988) of Fishers, the trait of Cognitive Failure (Broadbent et al., 1982) and higher obsessiveness scores prior to arrival at university, were good predictors of Homesickness. These studies are particularly interesting, given the longitudinal design, the use of multiple methods of data collection (use of questionnaires, interviews, diaries), the collection of data prior to students' arrival at University, and the high response rate. However, a number of methodological inadequacies can be identified: (a) the use of a non-standardized measure of homesickness, of questionable validity. The questionnaire used in these studies was a conglomeration of items measuring homesickness, depressed mood, loneliness, lack of social support and anxiety symptoms. Moreover, the fact that a number of students were actually staying at their parental home and were found to experience a high degree of 'homesickness', does not seem to be an indicator of how widespread homesickness is, but rather that the measure does not actually measure homesickness; (b) the use of a questionnaire of Cognitive Failure as the main personality independent variable, despite the fact that Cognitive Failure can be viewed more as a state, associated with depressed mood, anxiety and general maladjustment rather than as a stable personality predisposition.

As regards academic performance/adjustment, Furnham and Mitchell (1991) in their longitudinal study tried to determine which of a range of personality variables, measured at the time of students entering an occupational therapy course related to first, second, third and final year results, as well as practical placement ratings. Their results showed that introversion

was related to academic performance in the first year and placement success in the third year. Moreover, various needs such as nurturance, achievement and understanding were related to academic performance. However, overall psychosocial adjustment to University life was not assessed. In another British study, Brewin, Furnham and Howes (1989) tried to investigate the factors associated both with the experience of Homesickness and how students respond to it among two samples of first year English students at the University of Leeds and the University College of London. They concluded that Homesickness was a reasonably common, but short-lived phenomenon, and was predicted longitudinally by greater self-reported dependency on other people, and by higher estimates of the frequency of Homesickness among students in general. In addition, they found a number of significant gender differences in relation to students' reactions to Homesickness. Finally, Lu (1991) investigated psychosocial reactions toward University transition with cultural relocation, as well as Homesickness and mental health among Chinese students in Britain, in relation to a number of personal factors (Cognitive Failure, Locus of Control) and environmental factors (perceived academic and social demands). His results indicated that while mental health was altered by personality predispositions, Homesickness was altered by perceived environmental demands.

Unfortunately, there appears to be a relative lack of longitudinal studies on overall psychosocial adjustment to University life of first year students, especially in relation to Personality (Neuroticism, Extraversion, Social Inhibition and Self-Esteem) and Social Support. This lack of studies on the adjustment of home students becomes even more noticeable if the recent findings of research (such as in Social Support, Happiness and general Well-Being, Loneliness and Personality) are taken into consideration. Research in these areas, and recently on the development of new relationships, and the psychosocial Adjustment of home and non-home students (Chapters 7, 8, 9, 10) seems to suggest consistently that a significant relationship exists between Personality, perceived Social Support and General Well-Being. Furthermore, major studies on the adjustment of students to University life (e.g. Klineberg and Hull, 1979; Cutrona, 1982; Shaver et al, 1986) suggest that more research in

this direction is required.

The present study attempts to cover some of the issues discussed earlier by studying the role of demographic and major personality factors, as well as the role of perceived social support in the psychosocial adjustment of home students during the first year of the transition to university. More specifically the goals of the present studies are: (a) to investigate any personality, social support and well-being differences measured prior to students' arrival at University, between students who develop a perceived satisfactory relationship during the early stages of the transition and those who do not develop such a relationship; (b) to investigate any personality, social support and well-being differences measured at the beginning of the academic year among three groups of students with 'low', 'intermediate' and 'high' adjustment at the end of the academic year; (c) to identify any differences measured at the beginning of the year between the students who were identified as 'transiently' lonely and those who were identified as 'chronically' lonely; (d) to study the stability of the two major dimensions of Personality (Extraversion and Neuroticism), perceived Social Support and Loneliness, during the first academic year. Finally, (d) to predict eventually, loneliness and overall psychosocial adjustment to University life from Personality and Social Support.

Procedure

Data was collected from students on three separate occasions: (a) prior to University arrival (July, stage1), (b) two weeks after arrival (October, stage 2), and finally, (c) at the end of the academic year (May, stage 3).

Stage 1: In the first pre-arrival stage, a set of questionnaires was sent during the last two weeks of July to 120 students who had received an unconditional offer from the University of Stirling for a course in Psychology, starting in the coming September. The students were informed about the nature and the overall goal of the study and were assured about the strictly confidential treatment of their responses through a cover letter that was sent together with the

questionnaire. Questionnaire replies were anonymous. However, initials, nationality and date of birth were required in order to match the files for the statistical analysis of the longitudinal study. Participation to the study was voluntary. The students were asked to return the completed questionnaire in the addressed envelope provided within the next two weeks.

Stage 2: A total of 220 sets of questionnaires were distributed to first year Psychology students, during the second week after arrival. The students, who were contacted in a class as a group, were informed about the nature and goals of the study through a short presentation, were assured about the strict confidentiality of the study, and were asked to complete and return the questionnaire in the addressed envelope provided within the following three to four days. Participation in the study was voluntary, and no extra course credit or any payment was given for their participation. Students were only asked to give their initials and date of birth.

Stage 3: A similar set of questionnaires was distributed to 183 first year students during the first two weeks of May, approximately two weeks before the end of the academic year. Students were given the questionnaires while in a class and after a short presentation, reminding them of the aims of the study and assuring them about the strictly confidential treatment of their responses. They were asked to fill in the questionnaire during the first twenty minutes of a two-hour practical. Participation in the study at this stage was part of the class requirements. The sets of questionnaires were collected at the end of the class.

Subjects

Stage 1: At the first pre-arrival stage (July) 5 sets of questionnaires were discarded for extensively missing data (more than 10% missing). The final sample consisted of 72 (overall response rate: 60%) students, 70 British (97.2%) and 2 non-British students. 44 of them were females (61.1%) and 28 (38.9%) were males, with a mean age of 22 years ($SD=7.32$). The majority of the students were single (91%), with only 5 students being married/having a

serious relationship (7%) and 2 students being divorced /separated.

Stage 2: Three questionnaires of the second group (October) were discarded for extensively missing data. The sample consisted of 181 first year Psychology students (overall response rate: 82.2%). The majority (90.1%) were British students (n=163), with 18 (9.9%) non-British students. The average age for the group was 22 years (SD=7.81), with a minimum of 18 and a maximum of 60 years. Most of the students were single (83.4%), with 26 students being married/having a serious relationship (14.4%) and 4 students (2.2%) being divorced.

Stage 3: Finally, the third sample (May) consisted of 72 (39%) male and 111 (60%) female students (overall response rate:100%). Most of the students were single (n=72, 39%), with only 19 (10%) students being married/having a serious relationship and 2 students (.1%) being divorced /separated. The average age of the group was 22.3 years (SD=7.16), with a minimum of 19 and a maximum of 61 years.

Measures

On all three occasions, the questionnaire consisted of two parts: (a) a general details part, and (b) a number of standardised, valid and widely used personality, social support and well-being/adjustment scales.

Stage 1: In the first set of questionnaires, data concerning the gender, age, marital status, nationality, travel and work experience away from family (measured in months), intercultural experience (defined by the number and length of visits or sojourns in another culture), as well as the perceived amount of experience of relocation prior to attending the University, were collected from all the subjects by means of a self-report personal details form. In addition, there was a number of questions regarding: (a) overall optimism/pessimism about future adjustment to University life (1 item); (b) a number of questions in a 5-point Likert format

referring to satisfaction with relationships (3 items) and other aspects of life while still at home, (3 items), and (c) 6 questions referring to optimistic/pessimistic expectations for several social and academic aspects of life while at University (e.g. how optimistic are you regarding completing your studies, making new friends, etc; each assessed on a 5-point likert scale, with a high score indicating optimistic expectations). In the second part, a number of standardised measures of personality variables, social support and general well-being were included, which were also used at the next two stages.

Stage 2: The second (October) and third (May) set of questionnaires given to the students had again two parts. The October questionnaire included a personal details form and a number of questions regarding: (a) the students' first impression of the University; (b) whether they were living in a Residence Hall or in private accommodation; (c) expectations about social and academic aspects of life at the University (6 items, ranging from very optimistic to very pessimistic, each scored on a 5 point Likert scale); (d) whether or not they had found a potentially good friend/ confidant, since arrival at University (in a yes/no format); (e) optimism/ pessimism about their overall future adjustment at University (1 item on a 5-point scale); (f) problems anticipated during the academic year (open-ended questions); (g) homesickness experienced. The second part, included a number of standardized measures of the personality variables of Neuroticism, Extraversion and Psychoticism (a Lie scale was also included); the two broad personality dimensions of state Negative and Positive Affectivity; a measure of perceived Social Support; and finally a measure of Loneliness. More specifically the measures used were the following:

(a) the EPQ-R (Eysenck and Eysenck, 1981) measuring Neuroticism, Extraversion and Psychoticism. A Lie-sensitive scale was also included; (Eysenck and Eysenck, 1981). The EPQ-R (1981) has been used in this study (the 48-item, short version scale) because it is valid, standardised and is the most widely used instrument measuring Introversion-Extraversion, Neuroticism and Psychoticism. For the present study the internal reliabilities were .91, .88, and .81, for Neuroticism, Extraversion and Psychoticism respectively.

(b) the Social Inhibition scale (Horowitz and de Sales French, 1979; Adams et al, 1988). This is a 14-item scale which was used here to measure Social Inhibition and Perceived Social competence. The first 12 items are in a 'Yes-No' statement format (eg. 'I find it hard to make friends in a simple, natural way'), and the last two consist of two statements each. The items were first designed by Horowitz and deSales French (1979), and they were operationalized into a measure by Adams et al (1988), to be used in their study on loneliness in late adolescence. They reported a split-half reliability of $r=.84$, and a coefficient alpha of $.81$. The reason for choosing this scale in this study is the face validity of the scale, the simplicity of the language and the short length of the measure. The internal reliability for the present study was $a=.91$.

(c) the PANAS scales (Watson, Clark, and Tellegen, 1988) measuring Negative and Positive Affectivity. Each scale consists of 10 items. They are in a Likert scale with scores ranging from 1 to 5 (from 'never' to 'always'). The internal consistency given for Positive Affectivity was $.86 - .90$ and $.84 - .87$ for the Negative Affectivity scale. The reported correlation between NA and PA was $r=-.12$ to $-.23$. The scales have excellent convergent and discriminant correlations with lengthier measures of the underlying mood factors. When used with short-term instructions as in the present study (e.g. right now or today) they are sensitive to fluctuations in mood, whereas they exhibit traitlike stability when longer-term instructions are used (e.g. past time or general).

(d) the Self-esteem Index (Hudson, 1982). The Index of Self-esteem is a 25 item, self-report questionnaire designed to assess the degree or magnitude of a problem that a person has in the area of self-esteem. All items are in statement format. Respondents are required to rate each item-statement from 'rarely or none of the time' to 'most or all of the time', on a 1 to 5 scale.

The suggested scoring system entails scoring all items in the direction of low self-esteem,

which necessitates score reversal in some items, and finally subtracting 25 from the total score, to give a score range from 0 to 100. However, for the present study, which does not require a cut-off point but only a comparable mean, subtraction of 25 was not calculated. In addition, although the suggested scoring system entails scoring all items in the direction of low self-esteem, for the purposes of this study, the scoring system was reversed in the direction of high self-esteem, with higher scores indicating a higher degree of self-esteem. The ISE is internally consistent ($\alpha = .93$), has good test-retest reliability ($r = .92$), and has good known groups validity ($r = .52$). The alpha coefficient for the present study was .93.

(e) Global Social Support (Cohen et al., 1985)

Global Social Support was assessed using the student form of the Interpersonal Support Evaluation List (ISEL, Cohen et colleagues, 1985). The ISEL-student form consists of 48 items in the statement format, concerning the perceived availability of social support resources. The items are counterbalanced for social desirability. Items were developed on theoretical grounds to cover the domain of socially supportive elements of relationships which students might be expected to experience (Cohen and Hoberman, 1983).

It has 4 sub-scales of twelve item statements each, and each sub-scale is constructed to measure a different element of Social Support. The four sub-scales refer to the following elements: a) Appraisal support, b) Belonging Support, c) Tangible Support, and finally, d) Esteem Support. Respondents indicate whether each statement is probably true or false for themselves, at the time of administering the questionnaire. The ISEL is scored by counting the number of responses indicating support for each of the four sub-scales. An overall index can be calculated by summing up the support scores across the four sub-scales. Reported internal reliabilities range from .88 (alpha coeff.) to .90 for the general population form of the ISEL. It also has a good test-retest reliability (.70) over a six-week interval for the overall score and the four subscales scores (Cohen, Kamarck, Mermelstein and Hoberman, 1985). The internal reliability for the present study was .92.

(f) The R-UCLA scale of Loneliness (Russel et al, 1980). Although there is a number of scales available for measuring Loneliness, the R-UCLA scale is the most widely used (Russel, Peplau and Cutrona, 1980). The R-UCLA loneliness scale has a high internal consistency ($\alpha = .94$) and a number of studies indicate good concurrent and discriminant validity. The R-UCLA loneliness scale consists of twenty items in a statement format. Subjects indicate how often they feel the way described in each of the statements, and the answers range from 'never' to 'often'. All items are counterbalanced for Social Desirability. The overall score is calculated by adding each item's scores after reversing the positive items, so that the higher the overall score, the higher the degree of the experienced Loneliness. For the present study the reliability was .96.

(g) The General Health Questionnaire (GHQ-28, Goldberg and Hillier, 1979) measuring four aspects of physical and mental health (somatic, cognitive, behavioural and depression). The General Health Questionnaire is the short version of the original GHQ-60 (1972). The GHQ is a 28-item statement questionnaire and it was designed as a measure of psychiatric caseness. It consists of 4 sub-scales, with 7 items each, and each sub-scale measures a different aspect of well-being: (a) somatic dysfunction; (b) social dysfunction, (c) anxiety and insomnia, and finally, (d) depression.

The CGHQ scoring method of Goodchild and Duncan Jones (1985) can be used in order to produce an even less skewed distribution of total GHQ scores, and some studies have shown that this also increases the sensitivity of the instrument (increase from 73.5% to 84%). This method was used in the present study. The GHQ-28 has been shown to be valid ($r = 0.76$), and reliable ($r = 0.90$) (Robinson and Price, 1982). The internal reliability for the present study was .91.

Stage 3: The third set of the questionnaires (May), which was very similar to the second one, consisted of two parts: (a) the first part included a personal details form (age, sex, marital

status, nationality, date of birth), a list of problems experienced (a list of 15 items, in a yes/no format), and a small number of open-ended questions asking students for suggestions that they believe could improve their life while at the University. (b) The second part consisted of a number of standardized questionnaires that had been used previously (EPQ-R, R-UCLA Loneliness scale, ISEL Social Support scale, the Social Inhibition scale) plus a standardized measure of needs for achievement, a ways of coping list and a measure of overall adaptation to university life. More specifically, the new questionnaires used this time were the following:

(a) The Achievement Motivation scale (Argyle and Robins, 1965). Achievement motivation is a construct which refers to the desire to do well in order to attain an inner feeling of personal accomplishment (McClelland, 1961). Achievement motivation has frequently been assessed using scales which appear to be primarily indices of 'motive to achieve'. However, results reported by Argyle and Robinson (1962) suggested there may be different components within the personality construct which may be important in understanding how individual differences operate in regard to drive motivation. The Argyle and Robinson nAch scale was used to assess two aspects of achievement orientation: (a) 'hopes for success' (nAch+ve) and a 'fear of failure'(nAch-ve). Each subscale consisted of 5 positive and negative worded statements about motives to perform, achieve and excel in everyday type situations. These statements were scored on a scale from one to five. High scorers reflect high 'hopes for success' and a 'fear of failure' attributes. (Chay Yue Wah, 1990).

(b) The Ways of Coping Checklist (Lazarus and Folkman, 1985). Coping was assessed with the 66-item revised Ways of Coping checklist (Folkman and Lazarus, 1985; 198?). The checklist contains a broad range of coping and behavioural strategies that people use to manage internal and external demands in a stressful encounter; in this case the first year examinations. Two broad categories of coping can be identified: a) problem-focusing and, b) emotion-focusing. In addition, a factor analysis by Folkman and Lazarus produced eight scales: a) confrontive coping (e.g. 'stood my ground and fought for what I wanted'; $\alpha = .70$);

b) distancing (e.g. 'went on as if nothing had happened'; $\alpha = .61$); c) self-control (e.g. 'I tried to keep my feelings to myself'; $\alpha = .70$); d) seeking social support (e.g. 'accepted sympathy and understanding from someone' $\alpha = .76$); e) accepting responsibility (e.g. 'criticized or lectured myself'; $\alpha = .66$); f) escape-avoidance ('wished that the situation would go away or somehow be over with'; $\alpha = .72$); g) planful problem-solving (e.g. 'I knew what had to be done, so I doubled my efforts to make things work'; $\alpha = .68$); h) positive reappraisal (e.g. 'I changed or grew as a person in a good way'; $\alpha = .79$).

Subjects are asked to reconstruct recent stressful encounters and describe what they thought, felt and did. Students were asked to describe in the present study how they felt and how they coped with the examination stress during the previous few weeks. For each coping item students indicated on a 4-point scale (0-3) the extent to which they had used that strategy in the problem described.

(d) The College Adaptation Questionnaire (Crombag, 1968; van Rooijen, 1988). The College Adaptation Questionnaire (CAQ), constructed by Crombag (1968) to assess how well students have adjusted to University life, is a self-report instrument consisting of 18 statements. Respondents indicate on a seven point rating scale how well each statement applies. Eight statements indicate good adjustment and ten statements indicate the lack of it. The total score for adjustment is the sum of the item scores, after having reflected the items which indicate a poor adaptation. The internal reliability in the present study was .92

Data Analysis

Comparison of students who had versus those who had not developed a satisfactory relationship with another student during the early stages of transition to University, in terms of personality, perceived social support and loneliness measured prior to arrival, were done by means of unpaired t-tests. Comparison of the 'transiently' lonely versus the 'chronically' lonely students, as identified at the end of the academic year were also done by means of

unpaired t-tests. ONEWAY analysis of variance was used to investigate personality, perceived social support and loneliness differences as measured at the beginning of the year, among three levels of overall psychosocial adjustment to University life, at the end of the academic year. In addition, discriminant function analysis was used to identify the main variables that best predicted membership to the two groups of 'lonely' students. The absolute and relative stability of Personality (Neuroticism, Extraversion), perceived Social Support and Loneliness as assessed over the first academic year (October to May) was investigated by means of paired t-tests. Finally, prediction of psychosocial academic adjustment at the end of the academic year was done by means of multiple regression analysis, the basic model-testing regression procedure.

Results

Sex Differences

Stage 1 (July): No significant sex differences were observed in any of the measures taken at this stage.

Stage 2 (October): No significant sex differences were found on most of the personality variables, except in Psychoticism ($t=2.58$, $df=179$, $p<.05$), with males having a higher mean score than females. In respect to Social Support, a significant difference was found ($t=-2.86$, $df=179$, $p<.01$) with females reporting a higher score than males. However, no significant differences were found in respect to any of the two well-being variables (General well-being and Loneliness).

Stage 3 (May): At stage three, no significant differences between male and female students were found in any of the personality variables, including the Achievement Motivation scales. However, there was a number of significant differences found in respect to Social Support ($t=-2.54$, $df=181$, $p<.05$), with males having a lower overall mean score; in respect to Loneliness ($t=2.82$, $df=181$, $p<.01$), with male students being more lonely than female students, and finally in overall adjustment to University life ($t=-2.34$, $df=181$, $p<.05$), with

females being better adjusted than males.

(A) Differences between students with and without a friendly relationship during the early stages of the transition

Data collected on the first occasion (pre-arrival) was only used to investigate any differences between students who during the early stages of transition to University (October) had or had not developed a perceived as satisfactory, friendly relationship with another student.

By the end of the second week at the University (October), most of the students (79.6%, $n=144$) reported having found another student with whom they were getting along very well—a potentially good friend and confidant. However, 20.4% ($n=37$) of the students said that they had not yet found somebody to feel close to. Further analysis showed significant differences between those two groups in almost all the personality, social support and well-being variables. More specifically, students who by that time had not managed to find a 'potentially good friend/somebody to feel well with, had lower scores in Extraversion ($t=4.28$, $df=179$, $p<.001$); higher scores in Social Inhibition ($t=4.31$, $df=179$, $p<.001$); lower scores in state Positive Affectivity ($t=2.00$, $df=179$, $p<.05$); and higher scores in state Negative Affectivity ($t=-2.55$, $df=178$, $p<.05$). They had also lower scores of perceived Social Support ($t=3.27$, $df=179$, $p<.001$); lower scores in Self-Esteem ($t=3.27$, $df=179$, $P<.001$); higher scores on the GHQ ($t=-2.77$, $df=179$, $p<.05$) and higher Loneliness scores ($t=-4.22$, $df=179$, $p<.001$).

Furthermore, the two groups of students those who had or had not developed a friendly relationship with another student were compared again in terms of a number of personality, perceived social support and general well-being variables which had been measured prior to the students arrival at the University (July). Data prior to their arrival at the University had been collected for only 46 students from those who participated during the second stage. T-tests showed a number of significant differences between the students who had found a friend

Table 11.1 ONEWAY analysis of variance on three levels of overall Adjustment to University life as measured at the end of the academic year

Measure	Group I	Group II	Group III	F (2, 115)	p	Groups*
Neurotic.	4.54	6.69	7.77	5.40	<.01	1-3,2-3
Extraver.	6.27	6.73	8.81	8.91	<.001	1-3, 2-3
Neg.Aff.	15.36	19.31	21.77	5.43	<.01	1-3, 2-3
Self-est.	95.54	86.61	79.16	7.76	<.001	1-2,1-3, 2-3
Social Inhib.	14.72	16.14	18.55	9.36	<.001	1-2,1-3, 2-3
Social Support	27.40	25.37	25.00	4.33	<.05	1-3, 2-3
Homesick.	1.86	2.41	3.55	4.27	<.05	1-3, 2-3
Lonelin.	31.5	41.41	47.77	10.29	<.001	1-2,1-3, 2-3
GHQ	7.36	9.61	13.16	5.94	<.01	1-3, 2-3
Optimism	4.45	4.16	3.83	5.13	<.01	1-2, 1-3

Group I:AU < 105

Group II: 76 < AU > 104

Group III: Adjustment to University <75

Groups* significantly different at .05

(n=35) and those who had not (n=11): students in the first group who had developed a satisfactory relationship with another student were, prior to University attendance, more extravert ($t=4.33$, $df=44$, $p<.001$), less socially inhibited ($t=-4.36$, $df=44$, $p<.001$), and had a more positive perception of self ($t=4.24$, $df=44$, $p<.001$). Prior to University attendance, they were also better socially supported ($t=3.80$, $df=44$, $p<.001$), and less lonely ($t=-3.16$, $df=44$, $p<.01$) than those who did not develop such a relationship (table 1).

(B) Differences among three groups/levels of psychosocial Adjustment to University life

Three levels of psychosocial adjustment to University life were formed collecting the top and bottom 27% and the intermediate 46% of all the scores for (a) overall Psychosocial Adjustment score, and (b) the Loneliness scale, as recommended by Saklofske and Yackulic (1989) in similar analysis. Results are summarised in table 1. Comparisons between the three groups/levels of 'low', 'moderate', and 'high' psychosocial Adjustment at the end of the first academic year showed that the three groups differed on almost all the Personality, Social Support and Loneliness variables, when these were measured at the beginning of the first term (October). The group with lowest scores of psychosocial Adjustment to University life at the end of the academic year had the highest score in Neuroticism, the lowest score in Extraversion, the lowest score in Self-Esteem, and highest score in Negative Affectivity and perceived Social Inhibition as assessed at the beginning of the academic year. They also had the lowest score in Social Support and General well-being, and the highest score in Homesickness. Finally, this group had the significantly highest Loneliness score. Furthermore, it is noteworthy that the three groups were differed significantly in respect to their overall expectations about their future adjustment to university life (when an overall score was computed for the 6 items, referring to positive/negative expectations about several aspects of life at university), students in the poorly adjusted group were more pessimistic than the students in the other two groups. A similar analysis for three groups of 'Low', 'Intermediate' and 'High' Loneliness, gave very similar results (table 2). Thus, students in

Table 11.2 ONEWAY analysis of variance of three levels of Loneliness as measured at the end of the academic year

Measure	Group I	Group II	Group III	F(2, 115)	p	Groups*
Neurot.	8.06	6.46	4.60	8.06	<.001	1-2 1-3 2-3
Extraver.	5.55	7.00	8.52	9.81	<.001	1-2, 1-3 2-3
Neg.Affe	23.75	18.63	15.78	9.21	<.001	1-3, 2-3
Self-est.	73.65	87.34	98.21	22.68	<.001	1-2, 1-3 2-3
Social Inhib.	19.75	15.84	14.52	25.78	<.001	1-2, 1-3 2-3
Social Support	23.20	25.90	27.17	10.40	<.001	1-3, 2-3
GHQ	13.00	9.55	6.82	9.90	<.001	1-2, 1-3 2-3
Optimism	3.95	4.12	4.52	5.40	<.01	1-3, 1-2

Group I: UCLA > 46

Group II: 26 < UCLA < 45

Group III: UCLA < 25

Groups* significantly different at .05

the more 'lonely' group had also the highest Neuroticism score, the highest Social Inhibition score, the highest state Negative Affectivity score, the lowest Extraversion score, the lowest Self-Esteem score, and the lowest Social Support and general well-being score, when these were measured at the beginning of the academic year. The only difference found was that homesickness at the beginning of the academic year did not seem to differentiate between the three groups. These results suggest that individuals who are grouped according to their level of psychosocial adjustment at the end of the academic year, are also differentiated by a number of Personality, Social Support and General Well-Being differences at the beginning of the academic year. Such factors as assessed at the beginning of the academic year may therefore contribute in the longer term adjustment process and partially determine the well from the poorly adjusted students.

(C) Differences between transiently and chronically lonely students

In the present study, data was also analysed following Cutrona's method (1982), in order to answer the question: 'What are the initial distinguishing characteristics of the two groups of students who overcame their initial loneliness and those who remained lonely at the end of the academic year?' Students who were above the sample median (median=40) on the Loneliness scale at time I (October) and below the median (median=32) at time II (May) were termed 'transiently lonely' (n=45). Students who were above the sample median at both times were considered 'chronically lonely' or 'not recovered' (n=18), following the method used by Cutrona (1982) in a similar analysis. The results from the t-tests are summarized in table 3. As regards the measures taken at the beginning of the academic year, the two groups differed on all the Personality measures, with chronically lonely students being more anxious and emotionally unstable ($t=-2.22$, $df=61$, $p < .05$), less extravert ($t=3.07$, $df=61$, $p < .01$), more socially inhibited ($t=-3.61$, $df=61$, $p < .001$), and with a more negative perception of self ($t=3.24$, $df=61$, $p < .001$), than the transiently lonely students. Thus, those students who at the end of the academic year are chronically lonely, in comparison to those who are transiently lonely, can be differentiated on a number of Personality variables as assessed at

Table 11.3 Differences between 'chronically' and 'transiently' lonely students as identified at the end of the academic year

Measure	Group I	Group II	t	df	p
Neurot.	6.44 (3.29)	8.28 (2.85)	-2.22	61	<.05
Extravers	7.77 (1.76)	5.84 (2.42)	3.07	61	<.01
Neg.Affe	19.50 (6.13)	22.53 (6.74)	-1.65	61	ns
Self-est.	88.33 (10.44)	77.73 (12.21)	3.24	61	<.01
Social Inhib.	15.05 (1.25)	18.27 (3.67)	-3.61	61	<.001
Social Support	26.00 (2.61)	24.42 (4.00)	1.54	61	ns
GHQ	11.66 (4.92)	12.51 (6.33)	-.51	61	ns
Optimism	3.94 (.64)	3.95 (.60)	-.07	61	ns

Group I: Recovered students (n=45)

Group II: Non-recovered students (n=18)

the beginning of the academic year. Such factors may therefore contribute to the maintenance of Loneliness or difficulties in overcoming Loneliness.

Furthermore, discriminant function analysis was used to determine which variables best discriminated between students who overcame their loneliness and those who did not. This statistical technique involves grouping subjects according to preset criteria and allows for the identification of variables most strongly associated with group categorisation. A stepwise procedure was employed later, the purpose being to select the most useful discriminating variables from a list of potential contributors. The variables used in the analysis as potential predictors were the following: (a) Demographic variables (gender, age, sex, marital status, decisional control over the move to University, living in a residence hall or in private accommodation, distance from home, and having found a good friend in the early stage of the transition process); and (b) a number of personality traits (Neuroticism, Extraversion, Self-Esteem, Social Inhibition and perceived Social Competence). The stepwise procedure begins by selecting the single best-discriminating variable. A second discriminating variable is then selected as the variable best able to improve the value of the discrimination criterion, in combination with the first variable. The third and subsequent variables are selected in a similar fashion, according to their ability to contribute to further discrimination. Eventually, all variables initially entered will either have been selected or will be found to no be longer able to contribute to further discrimination. At this point, the stepwise procedure hal' and further analysis is performed using only the selected variables. The Wilks stepwise procedure was used (which maximises the overall F ratio, and also maximises Wilks' Lambda, a measure of group discrimination). A maximum significance level for inclusion of variables was set up at .001.

Results showed that success in overcoming loneliness was not related to how far the students lived from home, nor to whether the students lived in a residence hall or not, in accord with Cutrona's findings. Age, gender, marital status, decisional control over the move did not

contribute significantly. One highly significant discriminant function was obtained. Social Inhibition and perceived Social Competence (Wilk's Lambda = .83, $p < .01$), Self-Esteem (.80, $p < .01$), and having found a good friend at the early stage of the transition (.78, $p < .01$) loaded most strongly on this function.

(C) Stability of Personality, Social Support and Loneliness

A number of paired t-tests were used to investigate any changes in personality, social support and loneliness over time. The results of the t-test pairs are summarized in tables 4, 5 and 6. An ideal longitudinal analysis would have included collecting information from the entire sample at all three stages. However, at Stage 1 only those students who had an unconditional offer received the questionnaire. This resulted in low numbers at Stage 1. Therefore, in order to have an adequate sample size, the main longitudinal analysis was conducted for Stage 2 and Stage 3 alone. Nevertheless, this enabled comparison of students over their first academic year, in particular during the first 2 weeks of study and at the end of their first year.

Comparison of Stage 1 (July) and Stage 2 (October) over this 4 months period

46 students completed both questionnaires before Registration (July) and two weeks after arrival (October); as may be expected, given the very small, 4 months time period between stage I and stage II, no changes were present at this stage.

Comparison of Stage 1 (July) and Stage 3 (May) over this 10 months period

Finally, over the 10 months period covering time before arrival (July) and at the end of the academic year (May) were considered, the means of Neuroticism had decreased, whereas the means for Extraversion and Social Support had increased significantly. The mean of Loneliness had not changed substantially over this 10 months period. However, all the longitudinal correlations were high ranging from .58 for Social Support to as high as .75 for Extraversion, all significantly different from zero, showing relatively a high stability over time.

Table 11.4 Comparison between Stage1 and Stage2

Variable	Stage 1	Stage 2	Longit. Corr.	t	df	p
1. Neuroticism	6.13 (3.37)	6.39 (3.9)	.70***	-.63	45	ns
2. Extraversion	6.73 (2.70)	6.67 (2.69)	.76***	.24	45	ns
3. Social Support	25.11 (3.79)	24.95 (3.84)	.67***	.33	45	ns
4. Loneliness	38.95 (12.55)	40.39 (13.81)	.78***	-1.10	45	ns

Table 11.5 Comparison between Stage1 and Stage3

Variable	Stage 1	Stage 3	Longit Corr.	t	df	p
1. Neuroticism	5.98 (2.92)	5.20 (3.11)	.65***	2.21	51	<.05
2. Extraversion	7.81 (2.38)	8.82 (3.12)	.75***	5.60	51	<.001
3. Social Support	25.80 (3.44)	27.88 (3.82)	.58***	3.20	51	<.01
4. Loneliness	37.80 (11.23)	35.80 (9.41)	.65***	1.63	51	ns

Table 11.6 Comparison between Stage2 and Stage3

Variable	Stage 2	Stage 3	Longit Corr.	t	df	p
1. Neuroticism	6.45 (3.39)	5.31 (3.36)	.69***	4.65	117	<.001
2. Extraversion	7.05 (2.35)	8.36 (3.30)	.67***	-5.81	117	<.001
3. Social Support	25.69 (3.15)	26.72 (3.89)	.37***	-2.78	117	<.001
4. Loneliness	40.53 (12.55)	37.67 (10.29)	.59***	2.94	117	<.01

*** Significant at $p < .001$

Comparison of Stage 2 and Stage 3 over the first academic year

Data from the second (October) and third (May) stage of the study were analyzed as the main longitudinal study. First, a number of paired t-test were used to investigate any possible changes in any of the basic personality variables, perceived social support and loneliness measured during the two occasions. There was a significant change in the means of all the variable means: Extraversion increased ($t=-5.81$, $df=117$, $p<.001$, $corr=.67^{***}$), Neuroticism decreased ($t=-2.78$, $df=117$, $p<.001$, $corr=.69^{***}$); Loneliness decreased ($t=2.93$, $df=117$, $p<.01$, $corr=.59^{***}$) and Social support increased ($t=-2.78$, $df=117$, $p<.001$, $corr=.37^{***}$). However, the highly significant longitudinal correlations ranging from .37 ($p<.001$) to .69 ($p<.001$) suggest that despite the changes in the means, there is a significant stability in relative terms in all the variables. For instance, although overall group loneliness seems to have decreased, those who were most lonely at the beginning of the academic year (Stage 2, October) remain the most lonely at the end of the academic year (Stage 3, May), while the least lonely at Stage 2 are even less lonely after completion of first year (Stage 3).

(D) Prediction of Loneliness and Overall Psychosocial Adjustment

Finally, an attempt was made to predict loneliness and overall psychosocial adjustment to University life as measured at the end of the academic year from a number of demographic, personality and social support variables measured at the beginning of the academic year. The main model-testing regression procedure used was hierarchical regression analysis with variables entering the regression equation in three pre-determined steps: (a) demographics first (sex, age, marital status, decision to come to university), (b) personality next (neuroticism, extraversion, self-esteem and social inhibition) and finally, (c) perceived social support last. When Loneliness were the predicted variable 41% of the variance was explained with gender ($B=-.17$, $p<.05$) being the single most significant demographic variable; perceived social inhibition ($B=.36$, $p<.01$) and self-esteem ($-.25$, $p<.05$) were the only significant personality predictors (table 7). When overall adjustment to university life was the dependent

Table 11.7 Predicting Loneliness at the end of the academic year from Demographics, Personality and Social Support measured at the beginning of the academic year

Measure	Mul.R	AdR ²	F	df	p	B
1. Demographics	.34	.08	3.75	4,113	<.01	
Sex						-.17*
Age						.13
Mar. sta						-.05
decision						.12
2. Personality	.67	.41	16.75	8,109	<.001	
Neuroticism						.14
Extraversion						.05
Inhibition						.36**
Self-esteem						-.25*
3. Social Support	.67	.41	.23	9,108	ns	-.04
Constant=72.30, F(9, 108)=9.99, p<.001						

Table 11.8 Predicting Adjustment to university life at the end of the academic year from Demographics, Personality and Social Support measured at the beginning of the academic year

Measure	Mul.R ²	AdR ²	F	df	p	B
1. Demographics	.27	.04	2.16	4,113	ns	
Sex						.20*
Age						.09
Mar. sta						.01
decision						-.06
2. Personality	.55	.25	8.77	8,109	<.001	
Neuroticism						-.11
Extraversion						.12
Inhibition						-.24*
Self-esteem						.13
3. Social Support	.55	.24	.02	9,108	ns	.01

Constant=86.72, F(9, 108)=5.08, p<.001

variable, gender ($B = .20, p < .05$) and perceived social inhibition ($B = -.24, p < .05$) were the two best single predictor variables, with 24% of the variance was explained (table 8). In the prediction of both loneliness and adjustment to university life, after entering into the equation demographic and personality variables, perceived social support accounted for very little change.

In addition, a number of hierarchical multiple regression analyses were used to predict eventual Loneliness and overall psychosocial Adjustment as measured at the end of the academic year, from demographic and a number of personality and social support measures taken both at the beginning and at the end of the academic year, following similar procedure conducted by Chay Yu Wha (1990) in analysing data from an occupational setting. When Loneliness was the dependent variable, Extraversion ($B = -.18, p < .05$) and Neuroticism ($B = .17, p < .05$) measured at Stage 3 (May) were the only significant personality predictors, whereas perceived Social Support measured again at Stage 3 was the single most significant predictor. This regression model explained 73% of the variance (table 9).

When overall psychosocial Adjustment to University life as measured at the end of the academic year was the dependent variable, Neuroticism ($B = -.31, p < .01$) measured at stage 3 (May) was the only significant personality variable, and gender was the only significant demographic variable ($B = .16, p < .05$). Again, perceived Social Support ($B = .37, p < .001$) measured at the end of the academic year was the single best predictor of overall Adjustment. This model explained 44% of the variance (table 10).

Given that Social Support as measured at Stage 3 was the single most significant predictor factor, it was decided to be excluded from the analysis in order to investigate the relative contribution of the other factors. When perceived Social Support measured at Stage 3 (May) was excluded from the regression analysis, Extraversion measured at stage 2 (October) ($B = .24, p < .05$) and Stage 3 (May) ($B = -.30, p < .001$), and Neuroticism measured at Stage

Table 11.9 Predicting Loneliness at the end of the academic year from Demographics, Personality and Social Support measured at the beginning and at the end of the academic year

Measure	Mul. R	Ad R ²	F	df	p	B
1. Demographics	.33	.06	2.57	4,113	<.01	
Sex						-.12
Age						.08
Mar. sta						.02
decision						.03
2. Personal.2	.67	.41	16.75	8,109	<.001	
Neuroticism2						.00
Extraversion2						.03
Inhibition2						.09
Self-esteem2						-.07
3. Social Support2	.67	.41	.23	9,108	ns	-.04
4. Personal.3	.80	.58	12.69	15, 101	<.001	
Neuroticism3						.17*
Extraversion3						-.18*
Achne						.10
Achpo						-.07
5. Social Support3	.88	.73	55.11	16, 100	<.001	-.47***

Constant=67.63, F(16, 100)=20.74, p<.001

Table 11.10 Predicting Adjustment at the end of the academic year from Demographics, Personality and Social Support measured at the beginning and at the end of the academic year

Measure	Mul. R	Ad R ²	F	df	p	B
1. Demographics	.27	.04	2.16	4,113	ns	
Sex						.16*
Age						.11
Mar. sta						.01
decision						-.02
2. Personal.2	.55	.25	8.77	8,109	<.001	
Neuroticism2						-.06
Extraversion2						.18
Inhibition2						-.01
Self-esteem2						-.14
3. Social Support2	.55	.24	.62	9,108	ns	-.11
4. Personal.3	.66	.35	5.80	13,104	<.001	
Neuroticism3						-.31**
Extraversion3						.08
Achne						.07
Achpo						.14
5. Social Support3	.72	.44	16.22	14,103	<.001	.37***

Constant=28.93, F(14, 103)=6.65, p<.001

3 (May) ($B = -.47$, $p < .001$) were the only single significant predictors of Loneliness. When perceived Social Support measured at Stage 3 (May) was again excluded from the regression analysis to predict overall adjustment to University life, Neuroticism ($B = -.37$, $p < .01$) measured at stage 3 was the single significant predictor.

In all analyses, personality contributed significantly to the prediction of Adjustment at University life, with Extraversion being a very significant predictor of Loneliness, and Neuroticism being a significant predictor of both Loneliness and overall Psychosocial Adjustment.

Discussion

The present longitudinal study yielded a number of particularly interesting points related to students' psychosocial adjustment to University life. One of the objectives of the study was to investigate the development of first relations at the university during the early stages of transition to University. It was shown that a number of significant differences regarding personality, social support and general well-being differentiated the two groups of students who had or had not developed a satisfactory friendly relationship with another student. More specifically, students who had developed such a relationship tended to be more extravert, less socially inhibited and perceived themselves as socially competent; they had a higher score in state Positive Affectivity (showing a higher level of venturesomeness) and a lower score in state Negative Affectivity; they had a more positive perception of self, and at the same time they perceived themselves as more socially supported, and less lonely. Moreover, when the two groups were compared in terms of the same measures, when these were taken prior to students' arrival at university, the same significant personality, social support and well-being differences were found suggesting that major personality differences in neuroticism, extraversion and self-esteem, as well as in perceived social inhibition and social competence might influence the opportunity to develop satisfying relationships at the early stage of the transition to university. Furthermore, the present results appear to support the hypothesis that

students who are satisfied with their relationships and their life overall and students who are not lonely tend to develop relatively soon on arrival at University new satisfying networks. These results seem to be in line with earlier research (Costa, and McCrae, 1985), which was conducted with elderly people during a major transition (e.g. relocation, bereavement).

Regarding sex differences, a comparison between male and female students both at the beginning of the first term and at the end of the academic year showed that women reported having a higher degree of perceived social support. This result is likely to be related to the different types of relationships women tend to develop. Recent research on students (Brewin et al, 1989) indicated that women have a higher level of social support and affiliative needs, especially in times of pressure and tend to be higher in self-disclosure than men. No other differences were however found between male and female students in respect to general well-being and loneliness. At the end of the academic year, a number of significant sex differences were also found with women reporting a higher degree of perceived social support, experienced loneliness and overall psychosocial adjustment to University life. In respect to loneliness, although it is likely that the perception of a higher availability of social support may influence negatively feelings of loneliness, it has been argued that men and women have different standards in evaluating whether they are lonely (Stokes and Levin, 1986).

One of the main aims of the present study was to identify any personality and perceived social support differences between the transiently lonely and the chronically lonely students during the transition to university. Cutrona (1982) in her very well-organized longitudinal study at UCLA reported that at the end of the school year two distinct groups could be identified: one group who were lonely at the beginning of the year but overcame their loneliness at the end of the year, and a second group who remained lonely throughout the academic year. Using discriminant function analysis and independent t-tests, Cutrona tried to identify the distinguishing characteristics of the two groups, concluding that those who remained lonely tended to blame their enduring personality characteristics for their loneliness, whereas the

non-lonely students at the end of the academic year blamed both personal and situational characteristics. In the present study, following the same methodology adopted by Cutrona, a number of significant personality differences were found between the two groups, when assessed at the beginning of the academic year. Chronically lonely students had higher Neuroticism scores, and lower Extraversion and Self-esteem scores; furthermore, they perceived themselves as more socially inhibited and less socially skilled than transiently lonely students. When discriminant function analysis was used to predict membership to the two groups, one highly significant function was obtained with all the personality variables (Neuroticism, Extraversion, Social Inhibition and perceived Social Competence and Self-Esteem) weighting quite highly on the function.

These results appear to be in line with earlier research on the personality correlates of Loneliness. Significant negative correlations have been reported between Loneliness and Self-Esteem (e.g. Hojat, 1982), Extraversion and social risk-taking (Jones, Freeman, and Hoswick, 1981; Stokes, 1985), and Neuroticism (Hojat, 1982; Stokes, 1985). Cutrona (1982) found that with regard to maintaining factors, one of the most significant variables seemed to be cognitive attributes of Loneliness to internal or to both internal and external causes. Another very interesting finding was that subjective satisfaction with relationships was a better predictor of loneliness than any of the quantitative measures of social involvement. Cutrona argues that the cognitive process of comparing one's own life to that of others plays a significant role in social satisfaction. However reasonable this may be, it is also likely that the perception of adequate social support and satisfaction with relationships are related to personality factors, such as Neuroticism, and the extended concept of Negative Affectivity.

Jones and Stokes (1986) said that 'the persistence of loneliness among College students is perplexing because unlike the lonely person who is physically isolated in some remote area, typically there are potential friends in the lonely students' social environment. For many students, the college year is relatively unencumbered by parental supervision of social life,

but not restricted by marital, vocational, and other more or less permanent commitment, and yet college students, as a group are more lonely than others. Thus paradoxically, the lonely student apparently feels interpersonally deprived in an environment of unattached and potentially available friends' (p.28). Cutrona's results and the present results support the notion that only a relatively small percentage of students fail to overcome their initial loneliness at the end of the academic year. Both studies appear to support the notion that the two groups of students differ in a number of personality and attribution variables.

Two theoretical models suggested by Levin and Stokes (1986) appear to give two very reasonable, complementary explanations for the results found. The Social Network Mediation Model postulates that individual difference variables are related to loneliness through the mediation of social network variables. In other words, people with certain personality characteristics find it more difficult to initiate, establish and maintain relationships, and therefore are lonely. Thus, people who are depressed, introverted, have a negative perception of self, are highly anxious or are distrustful of others are lonely because they have deficient social networks. According to the Cognitive Bias Model 'the relations of these individual differences to loneliness reflect intrapersonal cognitive processes. 'Thus, some people may hold a number of pervasive negative views of self, others and the world in general, that predisposes them to evaluate themselves as neurotic, depressed, worthless and lonely' (p.718). Watson and Clark (1984; 1989; 1991) suggested that Trait Anxiety, Neuroticism and other personality variables can be viewed as reflecting aspects of an overriding, integrative construct, which they called Negative Affectivity. According to the Cognitive Bias model, Loneliness is also a reflection of Negative Affectivity and it is this pervasive disposition to view oneself and the world negatively that accounts for the relationship between Loneliness a number of Personality variables. the results of the present study, as well as the results of earlier studies on students' Adjustment to University life appear to be in line with both these two models. In addition, results of the hierarchical regression analysis conducted to predict loneliness and overall psychosocial Adjustment to University life, adds further weight to the

discussion above.

Hierarchical multiple regression analysis was used to predict loneliness and overall psychosocial Adjustment to University life from a number of Personality and Social Support measures obtained at the beginning of the academic year. In both cases, perceived Social Inhibition and Self-Esteem were the two single most significant predictors. In both cases, personality accounted for the highest percentage of the explained variance. When Demographic, Personality and perceived Social Support variables measured at Stage 2 (October) and at Stage 3 (May) were used to predict Loneliness at the end of the year Extraversion, Neuroticism and perceived Social Support measured at Stage 3 (May) were the most significant predictors. When overall psychosocial Adjustment to University life was the dependent variable Neuroticism and perceived Social Support measured at stage 3 were the single best predictors. At all analyses, Personality contributed significantly to the prediction of psychosocial Adjustment.

Finally, the stability of Personality, perceived Social Support and Loneliness over the academic year was investigated. As Costa and Arenberg (1980) discuss many personality theories take a clear stand on the issues of constancy or change in Personality in adulthood, and from a more pragmatic point of view, the stability of measured characteristics is a crucial question for those who wish to make long term predictions of behaviour or adaptation. In their study of 460 male volunteers from 17 to 81 years old, there was no evidence of lower stability in younger subjects, and neurotic and extravert traits appeared comparably stable when corrected for unreliability (pp.793-794). In the present study, despite the high relative stability of Extraversion and Neuroticism, significant changes in the means were also obtained. One possibility is that the fact that for many first year students the transition to University is the first, and possibly most significant in many respects, transition in their lives, affecting not only their relationships and their well-being, but also their personal development and change. For many students transition to University removes them from parental support

and guidance and from parental restrictions, thereby enabling them to exhibit or develop traits that might be disapproved of in the family environment. For others, leaving the parental home may result in feelings of separation, loss, separation anxiety and loss of support and confidence. In respect to Social Support, results appear to be in accord with previous research that has shown that Social Support seems to have trait-like stability over only relatively short time periods, for example 2 to 5 months (Sarason et al., 1986). If a conclusion is to be reached in the present study regarding the stability of Personality, Social Support and Loneliness, it can be argued that in terms of relative stability, Personality, Social Support and Loneliness were stable over time; particularly Loneliness appeared to have a long-term stability. However, significant changes in the means were also observed, which implies that at least in this particular stage in the life of an individual Personality is possibly not so highly stable as initially believed, and that Social Support and Loneliness are also liable to change.

The shortcomings of the present study must be noted. First, although data regarding Personality, perceived Social Support and general well-being were collected prior to students' arrival at university, they were only used partially in the longitudinal design, given that not all students who responded actually came to Stirling University; furthermore, not all students who actually registered for the course in September had received the first questionnaire, given that it was sent only to those who had received an unconditional offer at that time. Second, the fact that participation in the third stage was compulsory, might have affected the students responses. However, students were assured about the strictly confidential treatment of their responses which at point of analysis was anonymous. Furthermore, a great deal of care was taken to identify univariate and multivariate outliers in the analysis, and analysis were run with and without the high L-scorers (Lie-sensitive scale), without significant differences in the results. Furthermore, a comparison of the means in the Lie scale between Stage 2 (October) and Stage 3 (May) showed no significant differences.

Finally, a number of suggestions can be made for future research in this area. A number of issues require more attention. Personality factors, and perceived social skills seem to be highly significant predictors of successful/poor adjustment during the transition to university. Openness to experience, as was discussed by Costa and McCrae (1985), may be a variable worthy of further investigation in this area of research. Use of measures taken not only from the individual but also from a number of people with whom she/he interacts, could also improve substantially our understanding. Furthermore, given that the present research seems to support the high importance of Personality in the successful Adjustment to University life- and particularly the importance of how the individual perceives himself/herself, the others and the world in general-the controlled comparisons of the outcome of different approaches to counselling lonely/poorly adjusted students could be proved quite useful.

**CHAPTER 12: Main Findings, Practical
Implications and Recommendations for Future Research**

Main Findings and Discussion

The present work was set out to elucidate relationships between Personality and Demographic variables, Social Support, General Well-Being and Adjustment, in the context of the students transition to University life. To recapitulate, the primary aim of this thesis was to investigate the adjustment to University life of Home and non-Home students and in particular in relation to Demographic variables, Personality characteristics, and Social Support. In order to achieve this a number of cross-sectional studies and one longitudinal study was conducted. The purpose of this Chapter is to discuss the basic findings of the present work, to consider the extent to which the objectives were achieved, to note limitations and to indicate areas for further fruitful research. Although not a direct goal of the current research, the results of this enquiry may have relevance and implications for future research and in particular the use of certain methods of student Counselling.

The present work was partly an attempt: (a) to apply for the first time the very significant findings of recent research in the areas of Social Support, Personality, and Loneliness, to the study of students' psychosocial Adjustment to University life; (b) to re-investigate a number of issues that hitherto have produced contradictory conclusions regarding their role in the adjustment of students e.g. cultural dissimilarity, previous sojourn experience, decisional control over the move etc.; and finally, (c) to try to predict successful (or poor) psychosocial Adjustment to University life from a number of personality and situational variables. As it becomes obvious such results will have a number of implications for further research and for the Counselling of students.

The present work consisted of five cross-sectional studies and one longitudinal, as well as of a number of interviews. Subjects comprised home and non-home students at University of Stirling. A pilot study was conducted early on in order to ensure clarity, understandability and applicability of the measures intending to be used during the course of the studies. Data was mainly collected by means of a self-report questionnaire, and in a number of cases

together with a short interview. At all times (with the exception of the last stage of the longitudinal study, where participation in the study was part of the class requirements) involvement in the studies was voluntary, and no extra credit or payment was given in return. During the first part of this work the focus was both on home and non-home students. During the second part, as a consequence of a number of results from the first part, the focus of interest was on home, first year students only. The main findings of these studies can be summarized as follows:

(1) Prior to arrival at University, non-home students were found to be as a group highly motivated, having a positive perception of self, being more internal and having less belief in powerful others than home students. Furthermore, they reported being overall more satisfied with the quality of their lives, being less lonely and having more experience of living/working or studying away from home and/or in another country (other than their own) than home students. All of these variables have been linked post-hoc, in previous studies of successful Adjustment to University life. Despite the finding that non-home students appear well equipped in many social respects and personality attributes to cope with the transition, non-home students appeared to lack significant information about life in Scotland, and particularly about the academic standards of the Universities in the host country. It is argued that such lack of knowledge might adversely affect the non-home students' ability to cope with the academic demands.

(2) It has been argued that Expectations about future Adjustment to University life might be related to the students' eventual future Adjustment. In the present studies, it was shown that optimistic Expectations about future Adjustment after the relocation were positively related to Self-Esteem, perceived Social Support and General Well Being when students are still at home. For the non-home students, Expectations were also related to satisfaction with current life (including relationships with family, friends and spouse, residence, academic status and career opportunities), and with reported Loneliness. In other words, both for home and non-home students, Expectations about future Adjustment seemed to be related to personality,

perceived social support, and general well-being, prior to arrival at University.

(3) Regarding decisional control over the move, overwhelming majority of the students took the decision themselves. However, a higher number of non-home students were to attend the University of Stirling because of their family's, employer's or financial supporter's wish. Prior to arrival at University, no Personality differences or any other differences in relation to General Well-Being, Social Support, information they had about life in Scotland, or Expectations about life while at University were found between those who had or had not decided themselves. Moreover, no significant differences were found between these two groups regarding subsequent psychosocial Adjustment. In other words, students who took the decision themselves to come to the University were not better prepared for the transition nor better adjusted eventually than those for whom somebody else took the decision.

(4) For the majority of home and non-home students, the main motives for deciding to come to the University were academically related: e.g. 'in order to get a good degree', or 'in order to have more opportunities when going back'. These findings being in line with Klineberg and Hull (1979); the latter reason being especially relevant for non-home students. Moreover, a point that requires more attention is that although very few non-home students decided to attend University in order to avoid family pressures and demands, a noteworthy percentage of home students (approximately 20%-22%) decide to attend University for this particular reason. These students who attended University to avoid family pressure in comparison to those for whom this was not the case, had a lower degree of perceived Social Support, had a more negative perception of self, had a higher belief in Powerful Others, and were more lonely, prior to arrival at University.

(5) When students were asked prior to their attending the University, and during the first two weeks of being at University how optimistic they were about their future adjustment, home and non-home students who were optimistic differed significantly from those who were

pessimistic, with more pessimistic students having a higher score in Neuroticism and a lower score in Extraversion. Another point that merits attention is the finding that students who reported being dissatisfied by reality at the university had a higher score in state Negative Affectivity, a lower score in state Positive Affectivity and in Self-esteem, and at the same time they were experiencing more problems, were more homesick and overall less well-adjusted to University life.

(6) Comparison between the group of students with and without a great deal of previous sojourn experience, or experience living away from home, showed no significant differences prior to arrival at University in terms of self-esteem, general well-being or information/cultural knowledge and Expectations about University life. No differences were found in any of the Adjustment variables (homesickness, number of problems experienced, general well-being, loneliness etc.) during the academic year between these two groups.

(7) When home and non-home students were compared two weeks after arrival at University in terms of Personality, Social Support and Well-Being variables, a significant difference was found in Neuroticism and Self-esteem, with non-home students being less neurotic and having a more positive perception of self than home students. Non-home students, at this early stage of the transition, were not found to be more homesick than home students, neither were they more lonely. However, during the third study that took place approximately two weeks after the beginning of the second semester, non-home students were experiencing significantly more problems than home students, most of those problems relating to cultural dissimilarity such as problems with language, climate, food and so on. Finally, during this third study, two weeks after the beginning of the second semester, non-home students were more homesick and less well-adjusted to University life.

(8) In respect to homesickness, two weeks after arrival at the University, although a quarter of the students felt homesick 'occasionally', only a minority (8 %) were 'all the time'

homesick. In general, the percentages of students who were very homesick were between 8% and 12%. The highest percentage of students being homesick 'sometimes' (30.5%) and 'very often' (23.1%) were found in the study conducted two weeks after the beginning of the second semester. Most of the students who were homesick at that time were non-home students, many of whom did not had the opportunity to visit home during the six weeks of academic break after Christmas.

During this stage, shortly after Christmas and at the beginning of the 2nd semester, homesickness experienced by home students was found to be positively highly related to all personality measures (Neuroticism, Self-Esteem, Social Inhibition and perceived Social Competence, Interpersonal Mistrust), and highly related to overall psychosocial Adjustment to University life (Loneliness, number of problems reported and overall psychosocial Adjustment). However, homesickness was unrelated to personality for non-home students; the only relationship found was between Social Inhibition and perceived Social Competence and homesickness. However, for non-home students, homesickness did correlate quite highly with psychosocial Adjustment to University. In other words, homesickness seems to be a serious problem for both home and non-home students. Nevertheless, although for home students homesickness appears to be mostly related to Personality-Neuroticism, Extraversion, Social Inhibition and Interpersonal Trust- for non-home students, homesickness is most closely related to the cultural dissimilarity, to the problems that this may cause, and to the objective difficulties such as lack of frequent contact with family and friends back home due to financial and time pressures. In addition, whereas for home students the number of problems reported were related to Personality (Neuroticism, Extraversion, Social Inhibition, Self-esteem) and Social Support, for non-home students the number of problems reported was unrelated to Personality, and highly related to overall psychosocial Adjustment to University life.

(8) In terms of sex differences, no differences in motivation, or expectations were found

between male and female students prior to arrival, both for home and non-home students. Later on, female students overall were found to have a higher score in Neuroticism- in accord with the standardized data- as well as a higher score in perceived Social Support. In fact, in most of the present studies females were found to enjoy a higher degree of Social Support than men, in line with earlier research (Brewin, Furnham and Howes, 1989). Finally, in one of the studies conducted at the end of the academic year (May) female students were found to have a higher scores in perceived Social Support, lower scores in Loneliness and higher scores in overall psychosocial Adjustment to University life.

(9) The majority of students, in the very early stages of transition i.e. two weeks after arrival at the University, had managed to find somebody with whom they were getting along particularly well- a potentially good friend and confidant. More specifically, in all the present studies approximately 80% to 86% of students had found a fellow students, with no differences between home and non-home students. However, in each of the studies conducted approximately 15% to 20% of students reported not having developed such a relationship.

In almost all the studies a number of significant differences were found between the two groups in respect to Personality and also in respect to perceived Social Support and general well-being. Students who had not managed to develop a close relationship had higher scores in Neuroticism, state Negative Affectivity and State Anxiety; a lower score in Extraversion and Positive Affectivity; a higher score in Social Inhibition and perceived Social Competence as well as in perceived Social Support, and finally in Loneliness, and overall Adjustment to University life.

Moreover, students who had not manage to develop a satisfactory friendly relationship with another student, during the first weeks at the University, were prior to their arrival at the University, more introvert, more socially inhibited, more lonely, had a more negative perception of self, and perceived themselves as less socially supported than the students who

had manage to develop such a relationship.

(10) Cultural distance was found to be positively related to Social Inhibition and perceived Social Competence, and negatively related to Extraversion. Put differently, the higher the Cultural Distance between a student's culture and the host culture, the more likely it is for the individual to be more introvert and socially more inhibited, possibly because of the many cultural differences experienced. Moreover, given that Social Support appears to be so closely related to Extraversion, this relationship may indicate that for non-home students it might be more difficult to develop new relationships, at least during the early stages of the transition.

(11) One of the most significant findings of the present studies was the finding that Personality and Social Support were directly related to the successful psychosocial Adjustment to University life, for home and non-home students alike. Neuroticism, Extraversion, Social Inhibition, Interpersonal Mistrust and Self-esteem were significant predictors of Adjustment. In addition, Social Support was one of the best predictors of Adjustment to University life; Homesickness and the number of problems experienced were significant predictors of Adjustment to University life for non-home students only. Dysfunctional Attitudes were found to be highly negatively related to overall psychosocial Adjustment to University. Ways of Coping with the examination stress (Emotion-focused or Problem-focused) were not found to be related to successful (or poor) psychosocial Adjustment to University life.

(12) Another very significant finding was that academic performance was: unrelated to psychosocial Adjustment and to overall satisfaction with life at the University; unrelated to the basic dimensions of personality; unrelated to Achievement needs; unrelated to ways of Coping with the examinations stress; and unrelated to perceived Social Support. It appeared to be related only to one particular subscale of the Ways of Coping Scale, in particular 'distancing oneself' from the examination stress.

(13) Regarding the stability of Personality, Perceived Social Support and Loneliness over the first academic year, a significant change of the measures means was observed over time, both in Social Support and Personality, as well as in Loneliness between the beginning and the end of the academic year. There was an increase in the means of Extraversion and Social Support and a decrease in the means of Neuroticism and Loneliness. However, test-retest correlations were quite high, all reliably different from zero, ranging from .37 ($p < .001$) for Social Support to .69 ($p < .001$) for Neuroticism, indicating a relative stability of the variables. If a conclusion is to be reached in respect to the stability of Personality, Social Support and Loneliness, it can be argued that they tend to remain relatively stable over time, without arguing that absolute changes in terms of means changes do not occur. Even so, partly in agreement with the overall results reported by Jones and Moore (1987), the general pattern of results suggested considerable stability with respect to personality, social support and loneliness (eg. the longitudinal correlations suggested substantial rank order stability despite significant mean changes on the variables).

(14) Finally, at the end of the academic year two distinct groups could be identified, following Cutrona's (1982) methodology: one group of students who were lonely at the beginning of the year, but had overcome loneliness at the end of the academic year (transiently lonely), and another group who were lonely at the beginning of the year and they remained lonely at the end of the year (chronically lonely). Students who were lonely at the beginning of the year and were still lonely seven and a half months later had higher scores in Neuroticism, state Negative Affectivity, Social Inhibition and perceived Social Competence, lower scores in Extraversion, Positive Affectivity and Self-esteem, as well as lower scores in perceived Social Support and in general well-being than the first group of students who were lonely at the beginning but not at the end of the academic year.

The basic results are not difficult to summarize: Personality and perceived Social Support were highly and significantly related: to Homesickness; to the number of problems reported;

to optimism for future Adjustment; to satisfaction with reality after arrival; to the development of new satisfying relationships; to loneliness, general mental and physical well-being; to satisfaction with life at the University and to overall psychosocial Adjustment to University life. More specifically, the personality Traits of Extraversion and Neuroticism were found to be consistently highly related to all the psychosocial Adjustment variables. Although for non-home students factors such as cultural dissimilarity, homesickness and additional practical problems are significant factors in the eventual psychosocial Adjustment, Personality is still a very significant single predictor of Adjustment. Moreover, although some changes in absolute terms were observed during the academic year in respect to Personality, Social Support and Loneliness, in relative terms a significant stability of those variables was found, indicating that although the developmental pattern may be relatively stable, significant changes can not be excluded.

Most of the results of the present studies are based on correlations: most of which were statistically significant, of a high order, and in the expected directions. Although, as always correlations by themselves cannot be interpreted causally, they are compatible with the general hypothesis that: Personality and particularly Neuroticism and Extraversion, with the more extended concepts of Negative and Positive Affectivity, are highly interrelated with the development of satisfying relationships and the perception of the existing social networks as satisfactory. Moreover, both Personality and perceived Social Support are highly interrelated with Loneliness, happiness, mental and physical health, and finally with overall psychosocial Adjustment during a significant transition in one's life. In other words, it is reasonable to argue that Negative Affectivity, as well as Positive Affectivity are decisive factors in the development of relationships, in the positive or negative perception of these relationships, in the overcoming of occasional loneliness and in the overall successful Adjustment following a major transition. This is not to argue that other situational-environmentally determined factors do not affect psychosocial adjustment (such as financial difficulties, difficulty to visit home and family because of time and money pressures, class size, living in dormitories, lack

of academic counselling and guidance etc). However, Personality and Social support do seem to contribute to a high degree to the successful or poor adjustment following a transition. Obviously more research is needed to reach definite conclusions, but this hypothesis has already two considerable assets: logical coherence and compatibility with recent work in many areas of research. During the past twenty years a great deal of research has been done on the joint role of dispositional and situational factors in determining behaviour and adjustment. The results of the present studies underscore the importance of this interactional approach as can be shown by summarizing the findings under three headings, as has been suggested by Shaver et al (1986): normative, situationally induced changes (the transition); general socio-emotional correlates of key individual difference variables (Personality variables); and finally person-situation interactions (e.g. Social Support variables).

Practical Implications

For most students who enter University this is one of the major transitions in their lives. For first year students this transition involves the move from school to higher education and from the familiar home environment to the new and challenging environment of the University. For others, in pursuing their education, this transition may also include going abroad to another country of a similar or a very different culture. For most students this is a somewhat stressful experience at least at the beginning, given the many changes in their everyday life, plans and social relationships. Although for the majority of the students the lack of Social Support, the Loneliness and the uneasiness of the first weeks will be soon overcome, for a substantial minority of students, those feelings will stay with them throughout the academic year, if they remain unaided. Many of the poorly adjusted students were lonely and unsatisfied with their life and relationships even prior to arrival at the University. Most of them tended to have a number of predisposing personality characteristics (high Negative Affectivity, low Positive Affectivity, high Social Inhibition, low Self-esteem and many Dysfunctional Attitudes) which probably affect negatively not only the initiation and maintenance of relationships, but also the individual's perception of existing relationships, the quality of their lives, and their overall

psychosocial Adjustment.

Nevertheless, it has been shown that despite the stability of such predispositions there is potential for remarkable change, particularly during this dynamic developmental stage. Counselling could help a great deal towards this direction. Relatively recent articles in the *Counselling Psychologist* (e.g. Pedersen; Althen; Siegel; 1991) reveal on the one hand the growing interest on the topic of 'student Counselling' and on the other hand the confusion surrounding the approaches that could be of greatest benefit. The present work was an attempt to understand in more depth the factors that affect adjustment of home and non-home students in cotland today. All the results suggest that the following could help substantially students to adjust more satisfactorily after the transition: (a) more structuring of the University services; (b) more course guidance in the academic environment; (c) more information about the University standards prior to arrival; (d) more information about societies and the Counselling Service; and finally, (e) person-oriented approaches toward helping the individual to realize and alter negative predispositions and maladaptive cognitions. In addition social skills workshops could be very useful for non-home students in helping them understand more salient aspects of behaviour and lifestyle in the host country, as well as for home students who feel that they lack such social skills or who consider themselves to be socially inhibited. Peplau (1982) and Young (1982) give suggestions, and Jorm (1989) gives a very interesting, although rather limited, meta-analysis of therapy outcome studies, discussing the psychosocial therapies that are most effective in relation to the modifiability of trait anxiety and neuroticism. Shaver et al (1986) argue very positively that 'far from blaming the victim, such a person-oriented approach is a humane response to people whose needs are unlikely to be satisfied by situational remedies. When the causes of interpersonal problems really are 'internal', it makes sense to recognize that fact and undertake person-oriented change efforts'. Further research is required to investigate the effectiveness of different intervention approaches in enabling students to cope with major life transitions both in the short and long term.