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## Gender and SES Effects on Multidimensional Self-Concept Development During Adolescence

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2013-6

# GENDER AND SES EFFECTS ON MULTIDIMENSIONAL SELF-CONCEPT DEVELOPMENT DURING ADOLESCENCE

Patricia Orr [Thesis]  
*Dublin Institute of Technology*

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School of Social Sciences and Law  
Dublin Institute of Technology

**GENDER AND SES EFFECTS ON  
MULTIDIMENSIONAL SELF-CONCEPT  
DEVELOPMENT DURING ADOLESCENCE**

By

Patricia Meredith Orr

Supervisor: Dr. Dorit Wieczorek-Deering

Being a thesis submitted in fulfilment of the requirements for the Degree of  
Doctor of Philosophy by Dublin Institute of Technology

JUNE 2013

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## DECLARATION

I certify that this thesis, which I now submit for examination for the award of Doctor of Philosophy, is entirely my own work and has not been taken from the work of others, save and to the extent that such work has been cited and acknowledged within the text of my work.

The thesis was prepared according to the regulations for postgraduate study by research of Dublin Institute of Technology and has not been submitted in whole or in part for another award in any other third level institution.

The work reported on in this thesis conforms to the principles and requirements of the DIT's guidelines for ethics in research.

**Signed:** .....

Patricia Meredith Orr, BA (Mod.) Psych., MA.

## ACKNOWLEDGEMENTS

This research was jointly supported by the Post-Graduate R&D Skills Programme in Institutes of Technology (Technological Sector Research Strand I), Dublin Institute of Technology and Trinity College Dublin and I would like to formally thank them for their important collaboration.

I also wish to acknowledge the generous contribution of the following individuals:

Dr. Dorit Wieczorek-Deering, Academic Supervisor, whose enthusiasm as a developmental psychologist inspired me to pursue this course of study and also for her advice, guidance and support throughout the course of the research effort. Prof. Sheila Greene whose knowledge and experience were very valuable at critical stages during the lengthy gestation of this thesis.

Zoe Lipsom, who assisted me with the field work and with whom I shared many delightful conversations about our visits to the 72 families. Dr. Barbara Caska for her assistance with the statistical analyses.

My classmates in the postgraduate office in DIT who were wonderful colleagues during the early stages of this research and my DBS colleagues for their encouragement in recent times.

My mother Enid Meredith, who would have been the most amazing teacher had she been given the opportunity. My Dad, who sadly is no longer alive, but would be so proud of my efforts. My five sisters – Rosemary, Carol, Florence, Irene and Yvonne for all the fun and frolics we have shared together.

My husband John who encouraged me to go back to Trinity as a mature student and has had to suffer the consequences of my late academic career! My daughter Julie who has kept us all entertained along the way and my son Jonathan who wondered why anyone would ever choose to do more study!

All the researchers involved in the DCDS over the years and especially those who gathered the self-concept data at the 10-year stage.

Lastly, and especially, the 72 Mums and adolescents who participated at the 17-year stage - I think of you often and hope life is good for you!

*Patricia.*

## SUMMARY

The present study constitutes an integral part of the Dublin Child Development Study, a longitudinal study which began in 1986 and which has had eight waves of data collection since its inception. Using data collected during two of these waves, multidimensional self-concept status of 72 participants (F = 40, M = 32) was examined at 10 (T1) and 17 (T2) years of age. Longitudinal changes in multidimensional self-concept between T1 and T2 were also examined. The Shavelson Hubner and Stanton Structural Model (1976) was used as the theoretical basis for this research; this model emphasises the multidimensionality of the self-concept construct. The Piers-Harris 2 measure used was consistent with the multidimensional conceptualisation. The study also examined the influences of gender. The rationale for examining gender differences in multidimensional self-concept status and change over time was to redress the weaknesses of earlier research alluded to by Wiley (1979), Marsh (1990) and Crain (1996). Apart from a Canadian study by Shapka and Keating (2005), which used the Harter Self Perception Profile as its measure of self-concept, no previous research has included both age and gender in the one study. The influence of maternal socioeconomic status (SES) on self-concept at T1 and T2 was also examined.

With regard to the effects of gender, an interesting pattern of findings emerged. Of the seven self-concept variables examined at T1, females scored higher than males on six of the seven sub-domains, with gender differences reaching or approaching significance on four of the self-concept variables. The pattern was somewhat reversed at T2 where males scored higher than females on five of the sub-domains with significant or nearly significant gender differences being found for four of these. Further interesting patterns emerged when gender differences in self-concept change between T1 and T2 were examined. For females, Total SC, Freedom from Anxiety and Happiness and Satisfaction self-concepts decreased significantly between 10 and 17 years of age whereas for the males, Total Self-concept, Physical Appearance and Attributes and Popularity self-concepts increased significantly during the same period of time.

Analyses of SES effects at T1 found a main effect of SES on Physical Appearance and Attributes with 10-year-olds from a lower/working-class background having higher self-perceptions on this domain than their middle/upper middle-class peers. By 17 years of age (T2) any SES differences had dissipated.

The implications of these findings are discussed and recommendations are made with regard to further research and some possible intervention strategies.

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**CHAPTER 1**  
**INTRODUCTION**

Prior to the beginning of the 20<sup>th</sup> century, developmental research largely focused on the childhood stages. An important shift came when psychologist G. Stanley Hall (1904) put forward his rationale for including ‘adolescence’ as a distinct developmental stage, spanning the years 14-24. Perspectives on adolescent development evolved significantly during the ensuing decades. However, it was largely from the 1970s forward that a great deal of research in the developmental sciences became focused on the plethora of psychosocial changes that take place during the adolescent years.

The self-concept is one of the dynamic constructs that fluctuates much during this time. The development of a positive self-concept is a critically important component of adolescent psychosocial adjustment and it is necessary that further clarification, both theoretical and empirical, is the focus of future self-concept research. Studies providing further information regarding the patterns of self-concept development during adolescence will help to inform self-concept theory. In addition, new empirical research will help to elucidate the factors that moderate or mediate positive self-concept development. This important information will be beneficial to policy makers and service providers seeking to redress the damaging effects of early life experience on childhood and adolescent self-perceptions and to maximise the adaptive functioning of young people.

## **1.1 Irish Longitudinal Research – The Dublin Child Development Study 1986**

In 1980, the Irish Government's Task Force on Child Care Services identified the need to establish a national child development study to investigate the psychosocial development of Irish children. This prompted the instigation of the Irish Collaborative Infancy Study by researchers from the Department of Psychology, Trinity College, Dublin (TCD), the National Maternity Hospital, Dublin (NMH) and Harvard Medical School, Boston (HMS). In 1985, the study was renamed the Dublin Child Development Study (DCDS) and was implemented by Dr. Sheila Greene (TCD) and Dr. Kevin Nugent (HMS).

### *1.1.1 DCDS - Original Aims*

The DCDS was instigated in order to provide information about the psychosocial development of normal, healthy Irish children growing up in an urban setting (Greene, Wieczorek-Deering & Nugent, 1995). The study had five main objectives:

- (i) to provide longitudinal information about the psychosocial development of first-born normal Irish babies
- (ii) to determine the socioeconomic effects on psychosocial outcomes of the children participating in the study
- (iii) to identify parenting practices exercised by Irish parents in the mid-1980s
- (iv) to determine parenting practices which contributed to positive psychosocial outcomes for the children recruited into the study using Belsky's (1984) model as a guiding paradigm
- (v) to compare socioemotional development of children born to married versus single mothers.

### *1.1.2 DCDS - Original Sample*

In 1985, a written request from the senior researchers in the DCDS for permission to approach expectant Mums about participating in the study was made to Dr. John Stronge,



Master of the NMH. With his permission and support, 200 women aged between 14 and 35 years, attending the antenatal clinic and in the third trimester of a first uncomplicated pregnancy, were recruited into the DCDS. Women meeting the criteria for inclusion were approached consecutively by either of two research nurses until there were 100 married and 100 unmarried expectant mothers in the sample. The mean age for the total sample was 22.5 years; single expectant mothers had a mean age of 20 years and married expectant mothers had a mean age of 24 years. The married versus unmarried groups did not vary significantly in terms of educational level, which was three years in secondary school, or in terms of social class (Greene, Wiczorek-Deering & Nugent, 1995).

The original sample was categorised into four sub-groups:

- 50 expectant mothers who were over 18 and married
- 50 expectant mothers who were over 18 and unmarried
- 50 expectant mothers who were under 18 and married
- 50 expectant mothers who were under 18 and unmarried

### *1.1.3 DCDS Data Waves*

Since the instigation of the DCDS in 1985, seven data wave collection stages have been completed, with a number of different research assistants involved in gathering the data. However, it is important to highlight the fact that the present researcher was not involved in any of the first seven waves. Full details about these early waves are shown in Table 1.

**Table 1****DCDS Data Waves, Age, Developmental Stage and Location**

<i>Wave</i>	<i>Age</i>	<i>Stage of Development</i>	<i>Location</i>
1 (1985/6)	- 3 <sup>rd</sup> trimester of pregnancy	foetal	NMH
2 (1985/6)	- 3 days old	postpartum	NMH
3 (1985/6)	- 3 weeks old	postpartum	Home
4 (1987/8)	- 18 months old	end postnatal period	TCD
5 (1990/1)	- 5 years old	early childhood	Home
6 (1994/5)	- 8-9 years old	middle childhood	Home
7 (1996/7)	- 10-11 years old	late childhood	Home

In 1995, Dr. Dorit Wieczorek-Deering from the Dublin Institute of Technology (DIT) became involved in the DCDS. She collaborated with TCD in the planning and execution of the data collection at the 7th stage when the children were 10-11 years of age.

*1.1.4 DCDS – Sample Attrition*

Between 1985 and 1996, the number of DCDS participant mother/child dyads declined from 200 to 96. The pattern of attrition is summarised in Table 2.

**Table 2****Pattern of Attrition across all DCDS Waves**

<i>Wave</i>	<i>Dyads</i>	<i>% Lost between Waves</i>	<i>Cumulative % Attrition</i>
1	200	-	-
2	193	3.5	3.5
3	142	26.4	29.9
4	124	12.7	42.6
7	96	22.6	52.0

Unfortunately six of the babies died in the perinatal period which largely explains the attrition between waves one and two. The high attrition rate between waves two and three was due to the fact that 26 of the unmarried mothers chose to give their babies up for adoption. Between waves three and four, relocation to new addresses within Ireland and abroad was the main explanation for attrition. By the time the children were 10 years of age, 52% of the original families were lost to the study, with 96 mother/child dyads still actively involved. These 92 dyads formed the basis for the sample used in the present research.

By 2002, no DCDS data had been gathered after late childhood when the children were 10 years of age. This prompted Dr. Wieczorek-Deering to initiate an 8<sup>th</sup> wave and to gather data at a time when the participants were 17 years of age. It was then that this researcher became involved. The 8<sup>th</sup> wave extends the study to the late adolescence stage and the present research uses some of the data collected during this stage. (Further details about the 8<sup>th</sup> wave are presented in Chapter 7 (pp. 156-183).

#### *1.1.5 DCDS – Primary Findings and Current Status*

This section lists some of the pertinent primary findings from research involving the participants in the DCDS.

Wieczorek-Deering, Greene, Nugent and Graham (1991) found that stability in family of origin, emotional stability at three weeks, as well as maternal empathy and confidence predicted infant-mother attachment security at 18 months. There was some evidence of a

relationship between paternal support and infant-mother attachment security and between maternal reports of neonatal fussy-difficultness and caretaking problems and insecure-resistant attachment.

Reporting on the overall functioning of the children at 18 months, Greene, Nugent and Wieczorek-Deering (1995) found that most of the children were functioning well. High levels of attachment security were found as well as above international norms on intellectual and motor competencies. In addition, there was evidence of temperamental and emotional stability in the 18-month-old infants. These overall findings suggested that infants growing up in homes where the mother had strong psychological resources and good social support had good outcomes.

In 2007, DCDS researchers examined the link between infant attachment and emotional closeness in late adolescence (Wieczorek-Deering, Greene, Lonergan, Orr & Nugent, 2007). No significant link was found between infant-mother attachment security at 18 months and emotional closeness of the adolescent-mother dyadic relationship at 17 years.

Regarding the current status of the DCDS, no further waves are planned at this stage but the information that has been collected over the first eight waves provides a rich database for researchers to use now and in the future.

### *1.1.6 DCDS and Growing Up in Ireland Study*

It is important to point out that, even though the DCDS was not a nationally based study, this exploratory study provided important historical information that informed the Growing Up in Ireland Study (GUI) instigated in 2006. The GUI is the first Irish nationally based longitudinal study funded and overseen by the Department of Children and Youth Affairs. It is led by a consortium of researchers from the Economic and Social Research Institute (ESRI) and the Children's Research Centre, Trinity College. The overall aim is to find out about the individual, family and broader social and environmental factors that affect children's development.

The first phase of the GUI is planned to last seven years and includes two cohorts:

- (i) c.11,000 9-month-old children and their families, reinterviewed at 3 years of age
- (ii) c.8,500 9-year-old children and their families, reinterviewed at 13 years of age.

Findings have been reported for both GUI cohorts but only the findings for the older age group are relevant to this research. Comparisons between GUI results at 9 and 13 years of age and findings for this research are considered later in this dissertation.

### **1.2 Contextualising this Research**

The Irish children who took part in this research were all born in 1986. During the first decade of their lives, these children were maturing at a time when Ireland was experiencing an economic recession. However, by the mid-1990s, Ireland's economic position had improved and the country was entering a period of economic boom

commonly referred to as the ‘Celtic Tiger’ era. In the main, children from a lower socio-economic background would have experienced a gradual rise in their families’ standard of living, largely due to the increased availability of employment. Apart from these economic influences, there are other important sociocontextual factors that probably impacted on these developing children and their families.

In mid-1980s Ireland, most infants and young children were cared for by their mothers in the family home. However, by the mid 1990s, this pattern was changing with maternal employment on the increase, rising to 43% in 1996 (O’Connor, 2008, p. 5). Typically the children participating in this research would have experienced full-time maternal care and therefore would not have entered formal schooling until about 5 years of age. Irish education between the ages of about 5 and 18 is state funded. The primary school system is largely responsible for educating children between the ages of about 5 and 12 years and after that time children typically transition into the secondary school system. Secondary schools are largely funded by the state but many have a religious ethos. During the last decades of the 20<sup>th</sup> century typically those schools with a strong religious involvement were affiliated to the Roman Catholic Church, since 95% of the Irish population were Roman Catholic at this time. At the end of secondary school, at around 18 years of age, young persons complete a very important state examination known as the Leaving Certificate. Results in this state exam determine an adolescent’s options with regard to further education and training.

The young people involved in this research would largely have been educated at their local primary and secondary schools with peers from a similar social class background. They would also have been maturing in families that were well embedded in the larger social context.

With regard to the DCDS, the availability of data from a longitudinal study that had begun 17 years previously is a rare privilege for any developmental psychologist. The fact that data regarding multidimensional self-concept had been collected by other DCDS researchers at 10 years of age enabled this researcher to design a study aimed at redressing some of the weaknesses of previous self-concept research.

The rationale for the present research is briefly outlined in the next section.

### ***1.3 Rationale***

Having become increasingly convinced about the salience of a positive sense of self for healthy psychological development, the researcher's interest in the self-concept as a key indicator of psychosocial adaptation intensified. Further reading on the importance of developing accurate and positive self-perceptions during late childhood and adolescence contributed to the researcher reviewing previous empirical studies that had examined self-concept status and change during these developmental stages. It quickly became clear that several limitations in past self-concept research had been identified but these had not been specifically addressed. Efforts to redress some of these limitations formed

the primary motivation for the current research. The limitations which this study hoped to address include:

- lack of a longitudinal perspective (e.g. Crain, 1996; Marsh, 1996). Getting a more accurate account of developmental change in self-concept over time requires a longitudinal methodology that examines the exact same cohort at different developmental stages (Marsh, 1989).
- limitations of using a unidimensional conceptualisation. Studies that examine only a global measure of self-concept are flawed because masking effects within the sub-domains are not detected unless a multidimensional conceptualisation is used. Marsh (1999, p. 147) emphasised that the self-concept cannot be adequately understood “if its multidimensionality is ignored and researchers continue to rely upon single indicators of self-concept”. The result is that self-concept development may appear stable when in fact many different rates and patterns of change are taking place (Young & Mroczek, 2003; Cole, Maxwell, Martin, Peeke, Seroczynski et al., 2001; Byrne, 1996; Crain, 1996).
- failure to consider gender and SES as important determinants of adolescent self-concept development (Gentile, Grabe, Dolan-Pascoe, Twenge, Wells et al., 2009; Shapka & Keating, 2005; Crain, 1996).
- a need to expand self-concept research across cultures (Asci, 2002; Mboya, 1999). Over the last 20 years there has been considerable sociological change taking place in Ireland. Some of these changes have had significant effects on family environments. There is a need to record and examine the influences of these



societal changes on the way young people view themselves in contemporary Ireland.

In attempting to redress earlier limitations, the researcher hoped to provide greater clarity regarding the development of multidimensional self-concept in late childhood and adolescence and to provide some important information regarding the influences of gender and socioeconomic status on self-concept developmental patterns.

The next section briefly summarises the aims and research questions pertinent to this research.

#### **1.4 Aims and Research Questions**

This research investigated age, gender and SES effects on multidimensional self-concept in a sample of 72 Irish young people growing up in an urban area between 1986 and 2003. Self-concept was operationalised using the Piers-Harris 2 Scale, a multidimensional instrument that measures self-perceptions of Total Self-concept, Behavioural Adjustment, Intellectual and School Status, Physical Appearance and Attributes, Freedom from Anxiety, Popularity and Happiness and Satisfaction.

This study had two main aims:

- (i) To provide empirical understanding of the multidimensional self-concept status of Irish 10 and 17 year-olds and the patterns of change between those same time points.
- (ii) To examine the influences of gender and family SES on multidimensional self-concept status in late childhood and late adolescence in an Irish sample.

The main research questions were as follows:

- (1) What is the multidimensional self-concept developmental status at 10 and 17 years of age and what are the patterns of change during that time?
- (2) To what extent does gender predict differences in multidimensional self-concept status and change at and between 10 and 17 years of age?
- (3) To what extent does family SES at birth predict self-concept status at 10 and 17 years of age?

The methodology used in this research is briefly outlined in the following section.

### ***1.5 Overview of Methodology***

Since the data gathered at the 17-year stage had to be compared with data collected by other researchers when the children were 10 years of age, the methodology used in this research had to be compatible with the methodology used in the previous wave. In addition to the original between-subjects design a within-subjects design was added, due to the focus on examining self-concept developmental change between 10 and 17 years of age.

For the 72 participants in this research (F=40; M=32), data regarding age, gender and SES at birth were available from earlier waves of the study. At the 10-year stage, self-concept data had been gathered using the very well respected Piers-Harris Scale (1964). For clarity and consistency, the revised version of this same multidimensional instrument, the Piers-Harris 2 Scale (2002), was used to gather the self-concept data at 17 years of

age. During the visit, additional data on a number of different aspects of functioning were collected to update the previous waves. Some of this data has already been used by other researchers (e.g. Wieczorek-Deering, Orr, Greene & Nugent, 2006; Wieczorek-Deering, Greene, Lonergan, Orr & Nugent, 2007). This researcher anticipates that the additional data, gathered at the 17-year stage and not used in this research, will be used in future studies.

Once contact had been made with the participant families, the adolescents and their mothers were interviewed in the family home, with the typical visit lasting about 1 hour 45 minutes.

Data were scored and then entered and analysed using SPSS 17.

### **1.6 Brief Overview of Literature**

Theories relevant to the development of self and identity are detailed with a particular focus on the work of Erikson and Marcia. Attention is paid to Bronfenbrenner's ecological theory and influences on development from proximal and distal environments. Risk and protective factors influencing development are outlined briefly before highlighting the growing consensus in developmental science of the need to consider the different experiences of young females and males (e.g. Greene, 2003). With particular regard to self-concept research, similar criticisms have been made by Gentile, Grabe, Dolan-Pascoe, Twenge, Wells et al. (2009), Shapka and Keating (2005) and Crain

(1996) about past failure to consider the constitutional factors of age and gender as essential variables for examination.

The dissertation considers important methodological issues regarding the conceptualisation and measurement of self-concept and the need to embrace a multidimensional perspective as emphasised by Shavelson, Hubner and Stanton (1976). In terms of empirical findings regarding patterns of development for the self-concept sub-domains, the meta-analysis by Wilgenbusch and Merrell (1999) provided a useful summary of previous research findings regarding age and gender related changes in self-concept development. More culturally relevant was recent Irish research by O'Connor (2008), Hanafin, Brooks, McGee, Brady, Roche et al. (2007), Lalor, de Róiste and Devlin (2007), de Róiste and Dineen (2005) and Kelleher (2003). The sociological approach used by these researchers for explaining stereotypical patterns of psychosocial development amongst adolescents and Irish statistics were especially relevant to this research.

Empirical findings regarding the influence of age on multidimensional self-concept are considered in detail with the overall finding suggesting that, during adolescence, domain-specific self-conceptions appear to be less stable than global self-perceptions (Shavelson & Bolus, 1982) and patterns differ according to sub-domains (Cole et al., 2001; Bolognini et al., 1996; Wigfield et al., 1991; Eccles et al., 1989; Marsh, 1989).

In terms of the relationship between gender and multidimensional self-concept development, there is a recent lack of support for earlier empirical findings, indicating that differences in self-conceptions between females and males are small. In particular, meta-analysts Gentile et al. (2009) highlight the need to examine the effects of gender on the sub-domains to make sure that counterbalancing effects are unmasked in contemporary self-concept research. The recommendation made by Gentile et al. is especially salient given evidence from Irish research of a trend towards greater gender inequality in post-modern Ireland (e.g. Lalor et al., 2007).

Methodological issues relating to conceptualising and operationalizing SES are addressed, with recent support for a composite approach over a unifactor conceptualisation (Sirin, 2005). A review of previous research by Bridgman (2011) provides evidence of the importance of the resources in children's homes for supporting healthy socioemotional development. On a positive note, Masten and Coatsworth (1998), Garmezy (1993, 1985) and Rutter (1990) found that high self-esteem and self-efficacy moderated the negative effects of low SES during childhood and adolescence. In research examining whether SES effects intensify as children mature, Twenge and Campbell (2002) and Rosenberg and Pearlin (1978) found increasing effects as children move from childhood into adolescence. With regards to whether SES influences self-concept development in ways that are gender specific, meta-analysts Gentile et al. (2009) and Twenge and Campbell (2002) have been unable to clarify the links, due to the omission of these important variables in past self-concept research. The lack of empirical findings regarding SES, gender and multidimensional self-conceptions encouraged this researcher to examine possible links from studies incorporating

behavioural indicators of the various self-concept sub-domains. This approach was validated by empirical evidence indicating that behavioural indicators are reflected in domain-specific self-conceptions (e.g. Moeller, 1999).

### **1.7 Chapter Outline**

A brief synopsis of the issues examined in the various chapters is given in this section.

**Chapter 2** begins with a definition of adolescence before going on to examine psychosocial change, with a particular focus on the development of identity during this important stage in the lifespan. Proximal and distal influences on adolescent development are discussed, as well as reference to risk and protective factors. The chapter concludes with an examination of gender differences in psychosocial development during these formative years.

**Chapter 3** briefly considers issues regarding the philosophy and psychology of self and examines a number of self-theories in Psychology. It refers to empirical findings regarding self-evaluation and self-concept differentiation in late childhood and adolescence.

**Chapter 4** considers previous approaches to examining age differences in self-concept status and development before providing in-depth analysis of findings from past research regarding age effects on Total Self-concept and the six sub-domains.

**Chapter 5** discusses stereotypical patterns in the development of self-conceptions, with particular reference to the differing experiences of young females and males growing up in contemporary Ireland. The chapter then examines empirical findings regarding gender effects on self-concept status and development.

**Chapter 6** focuses on another of the key predictor variables, SES. Having more generally considered some of the proximal and distal ecological influences on children growing up, the focus shifts to some discussion regarding how SES has been conceptualised and operationalised in past research. The chapter then outlines some of the theoretical models regarding SES and developmental outcome. Empirical findings regarding the links between SES, age and gender and multidimensional self-concept development are then analysed.

**Chapter 7** provides important information regarding the design for the current research, the participant sample and the measures and procedures employed. Having explored a number of issues regarding reliability and validity, this chapter provides information about the data triangulation exercise carried out in this research, with a view to enhancing claims regarding the robustness of the data and findings.

**Chapter 8** presents the results of the data analysis using t-tests, paired sample t-tests and repeated measures ANOVAs. Patterns of change between 10 and 17 years of age in Total Self-concept and the six sub-domains are presented graphically.

**Chapter 9** compares the findings of this research with previous empirical studies. At the two time points, both intra-group patterns and gender differences are considered for Total Self-concept and the sub-domains. SES effects at 10 and 17 years of age are also considered. The chapter concludes with a summary of the findings and clarification of the themes that emerged. It outlines some limitations before making important recommendations regarding future empirical research on the development of self-concept and how best to measure it.



## **CHAPTER 2**

### **PSYCHOSOCIAL DEVELOPMENT DURING ADOLESCENCE**

The future of any society rests with its young people. The current generation of children and adolescents constitutes the future cohort that will eventually assume responsibility for themselves, their families, communities and society. It is therefore vitally important that efforts are made to maximise the levels of developmental adaptation of a nation's young persons in order to facilitate their positive contribution to the sociohistorical context within which they are developing. Research that augments our understanding and knowledge about psychological functioning beyond childhood and into adolescence is vitally important. Empirical findings that contribute to successful developmental outcomes for young people are ignored with great societal risk.

This chapter begins with a contemporary definition of adolescence and briefly refers to current trends in adolescence research. The main focus then shifts to the psychosocial changes that typically take place during the teenage years and to important psychological theories regarding the development of identity. Influences from proximal and distal environments are discussed and the chapter finishes with consideration of risk and protective factors that may moderate or mediate environmental influences.

#### **2.1 Defining Adolescence**

Adolescence is generally understood as the period of transition between childhood and adulthood that ends in the late teenage years. Due to the earlier onset of puberty, menstruation and sexual maturation, which shifted downwards over the course of the 20<sup>th</sup> century from about 15 years of age to 12.5 years of age (Brooks-Gunn & Paikoff, 1997),

more contemporary researchers suggest that adolescence spans most of the second decade of life. Arnett (2000) argues that, as a result of the demographic shifts which are particularly evident in western cultures and more affluent societies, it makes sense to define adolescence as spanning 10-18 years since, during this life stage, young people are still living at home with parents, going through puberty, attending secondary school and part of a school-based peer culture. Arnett (2000) says that at 18 years of age none of these criteria remain normative and there is a distinct shift to what he terms the 'emerging adulthood' stage.

## **2.2 Contemporary Adolescence Research**

Currently there is a great amount of research interest in the adolescent developmental period, highlighting the importance of adolescence research, not just for providing stage relevant findings, but also for informing development more generally (Petersen, 1988; Dornbusch, Petersen & Hetherington, 1991). Steinberg and Lerner (2004) have highlighted how adolescence research has become an exemplar in the developmental sciences due to its emphasis on a person-centred approach to research on human development and its focus on diversity.

In their brief history on the study of adolescence, Steinberg and Lerner (2004) identified three phases of scientific research. The first phase was an atheoretical phase that began early in the 20<sup>th</sup> century and lasted until the 1970s; it was characterised by grand scale theoretical models that related to all facets of development during adolescence. The second phase began around the mid-1970s. There was much more emphasis on hypothesis testing and the application of research to real life situations to the extent that the second phase witnessed a narrowing of the gap between theory and empirical

research. The essence of the contemporary third phase is a reciprocal collaboration between researchers, practitioners and policy makers, with the goal of informing policy and practice in order to promote positive development, both at the individual and the societal level. In this third phase, adolescence research serves as an exemplar of a developmental science wherein “excellent conceptual and empirical work is undertaken with a collaborative orientation to making a contribution both to scholarship and to society” (Steinberg & Lerner, 2004, p. 52).

Whilst Steinberg and Lerner (2004) focus on phases in adolescence research, Compas, Hinden and Gerhardt (1995) take a more thematic approach. They have identified three broad themes in research and theory on adolescence. One of these emphasises the need to identify patterns of psychological change that are linked to prior growth during childhood. This theoretical approach recommends adherence to a developmental perspective that captures both the continuities and discontinuities of individual development. It is often favoured in adolescence research as it allows for the investigation of delineated aspects of adolescent functioning. Many adolescents are without any major psychological or behavioural difficulties, but a growing segment of the adolescent population appear to be presenting with brief or enduring problems (e.g. Achenbach & Howell, 1993; Leventhal & Keeshan, 1993).

### *2.2.1 Longitudinal Methodology and Adolescence Research*

In his 2008 paper, Lerner credits the intellectual prowess and professional leadership of Paul Baltes as major influences on the reassessment of current methods used for studying human development. Baltes placed a lot of emphasis on longitudinal methodologies for studying changing relations between individuals and their contexts. Longitudinal studies

provide the only methodology that can chart inter-and intra-individual psychological change through time. The inclusion of the longitudinal perspective provides a more complete and robust understanding of normative and atypical stability and change during adolescence. Longitudinal analysis can also help to identify risk and protective factors influencing the psychosocial development of adolescents from specific sociohistorical, sociocultural and socioeconomic contexts.

In a recent paper focusing more specifically on gender, Perry and Pauletti (2011) have correctly emphasised the need for longitudinal studies in order for researchers to be able to test the extent to which gender phenomena, experienced in the pre- and post-adolescence developmental stages, are mediated or moderated by gender phenomena experienced during adolescence. These same researchers have also highlighted the need to develop theories about ways in which gender related phenomena interconnect across childhood, adolescence and into adulthood. Findings from robust longitudinal studies would add to developmental science's understanding regarding the extent to which adolescence is "the crucial bridge between childhood and adulthood it is reputed to be" (Perry & Pauletti, 2011, p. 70).

It is now considered best practice for countries to implement nationally based longitudinal studies. A number of countries including America, Australia, Canada, Ireland, New Zealand and the United Kingdom have all instigated nationally based longitudinal studies involving large cohorts of children. One of the first was the New Zealand Dunedin Study which was implemented in 1972/1973 with a sample of c.1,000 infants. It has had 12 data waves to date, the most recent wave being carried out at 38 years of age ([www.dunedinstudy.otago.ac.nz](http://www.dunedinstudy.otago.ac.nz)). The United Kingdom has implemented

three birth cohort studies to date. The National Child Development Study (NCDS) was introduced in 1958 with an original sample of 17,000 and the 9<sup>th</sup> sweep is scheduled for 2013 when the cohort members turn 55 years of age. The second study was called The 1970 British Cohort Study and has followed the lives of 17,000 people born in England, Scotland and Northern Ireland. It has had seven sweeps to date. A more recent nationally based longitudinal study is the United Kingdom's Millenium Study which recruited 19,000 children born in 2000-2001 and which has had five waves to date at 9 months, 3, 5, 7 and 11 years ([www.cls.ioe.ac.uk](http://www.cls.ioe.ac.uk)). The GUI study already referred to in Chapter 1 (p. 12) constitutes a major step forward in this country. Four reports have already been issued covering different aspects of the lives of Irish infants and children, the most recent being in September 2012.

The next section examines the typical changes that occur as youths transition through adolescence.

### **2.3 Biopsychosocial Change during Adolescence**

All new biological, psychological and social experiences shape psychological functioning. During adolescence, typically these new experiences include:

- biological changes - e.g. puberty
- psychological changes - e.g. cognitive change, increased self-definition and identity development
- social change - e.g. increased time spent with peers and decreased time spent with parents as well as multiple life events (Paikoff & Brooks-Gunn, 1991).

### *2.3.1 Biosocial Change*

While not a main focus in this research, puberty typically begins in early adolescence and lasts for about four years. In a study, conducted at the National University of Ireland, Galway, NicGhabhainn (2006) found that menstruation began at an average of 12 ½ years of age with slightly earlier onset amongst Dublin girls. Pubertal onset for boys typically happens later than for girls. However, puberty, with its accompanying major changes in hormonal output and bodily configuration, is not merely a biological event; physical and biological processes interact with psychosocial variables and all impact on individual development.

A longitudinal study (N=300) by Petersen and Crockett (1989) examined the psychological effects of puberty from 12 to 18 years of age. Leaving aside issues to do with early and late maturation, which that study also examined, the main findings regarding pubertal effects for both sexes were that early adolescence was trouble free for over 50% of the participants, about 30% experienced intermittent problems and about 15% seemed to be caught in a downward spiral of trouble and turmoil. In a review of the literature exploring levels of maladjustment during adolescence, Hauser and Bowlds (1990) found that the group who experienced adjustment difficulties had experienced difficulties in earlier phases and so problems were not a result of pubertal change per se.

In any event, adopting 10-18 years as the adolescence stage (Arnett, 2005), the 10 year-olds in this research would be pre-pubertal and the 17 year-olds post-pubertal, so arguably any adjustment difficulties that might directly ensue from biological maturation would not exist at 10 and would be resolved by 17 years of age. This position has been supported by Moneta, Schneider and Csikszentmihalyi (2001) who examined changes in

self-perceptions during adolescence and found that the early pubertal swing had readjusted by late adolescence.

### *2.3.2 Psychosocial Change*

The transitional period between childhood and adulthood involves many psychological and social relationship changes. For most of the last century, adolescence was viewed as a period of crisis and psychological turbulence. The current opinion is that the extreme storm and stress view of G. Stanley Hall (1904) overestimated the levels of stress experienced by adolescents (Offer & Schonert-Reichl, 1992; Hauser & Bowlds, 1990; Brooks-Gunn, 1989; Holmbeck & Hill, 1988). In his article entitled ‘Adolescent Storm and Stress, Reconsidered’, Arnett (1999) re-examined three aspects of the traditional storm and stress theory put forward by Hall – conflict with parents, mood disruptions and risk behaviour. His modified storm-and-stress view concludes that not all adolescents experience storm and stress but that this pattern is more likely to happen during the adolescence stage than during any of the other stages.

Lerner (2007) has also debunked the storm-and-stress view and challenges the consensus that adolescence is a difficult stage. He has highlighted the destructive effects that socially-constructed negative perceptions have on an adolescent’s sense of self and promotes the term the ‘good teen’ in order to emphasise the need for a shift towards a more positive view of adolescents as they develop during this stage. Contemporary developmental theorists tend to emphasise the ‘good teen’ perspective, regarding adolescence as a time of transition and change with major opportunities for growth, maturation and learning.

However, considerable changes in the daily interactions that adolescents have with their families and friends may result in adjustments to their psychological and social identities that may be accompanied by heightened levels of risk (Eccles, Midgeley, Wigfield, Buchanan, Reuman et al., 1993). A cross-cultural study by Steinhausen, Offer, Ostrov and Howard (1988) found that 73% of adolescents had positive self-images and were confident and optimistic about the future. In a later study, these same researchers found that 80% of teenagers do not experience much psychological disturbance and show a smooth transition through the adolescent phase (Offer et al., 1992).

Evidence that adolescent problems are on the rise comes from longitudinal research which indicates an increased prevalence of emotional and behavioural problems in adolescents (Achenbach & Howell, 1993; Leventhal & Keeshan, 1993). Of particular concern is the fact that, in contemporary Ireland, there are indications that adolescent functioning is becoming increasingly maladaptive, with violence and youth suicide on the increase (Stanley, 2001). A link between suicidal ideation and self-concept was cited in a Singapore study by Wong, Ang and Huan (2007) who found that negative self-concept predicted suicide in male adolescents. More research on these issues is required to identify any links between self-concept, adolescent maladjustment and youth suicide within the contemporary Irish context. Attention must also be paid to the modern paradox evidenced by the fact that a better research based understanding of the psychology of adolescence appears to be accompanied by a decline in their overall psychosocial well-being (Compas, 1995). This evidence suggests a disconnection between research findings and policy interventions which is worrying. Steinberg (2007) has alluded to the fact that, where interventions have been introduced, they have largely been of an educational nature and the success rates have been poor. His explanation for this lack of success is



neuroscientific. Steinberg has suggested that the temporal gap between puberty and concomitant increase in risky behaviours, and immaturity of the cognitive control system that should regulate these impulses, heightens the adolescent's vulnerability for engaging in these risky behaviours. Steinberg's 2008 paper highlights the changes that take place in the brain's socioemotional system that lead to increased reward seeking behaviours which are fuelled by a dramatic remodelling of the dopaminergic system. Based on the fact that these neurobiological changes that predispose adolescents to engage in more risk-taking behaviours are a normal part of adolescent development, Steinberg suggests that interventions aimed at changing the contexts wherein risky behaviours occur may be more successful than interventions to change the way adolescents view risk.

Disputing any idea of adolescent development as a single transition, Coleman and Roker (1998) have suggested that it is a period of multiple transitions that may hinge on education, training, employment, unemployment and transitions from one living circumstance to another, usually outside the adolescent's control. Any or all of these transitions may impact on development either positively or negatively, depending on individual circumstances (Graber & Brooks Gunn, 1997). Coleman's (1974) 'focal model', although criticised for the fact that it had no longitudinal dimension and paid no attention to contextual factors, proposes that adolescents progress from one focal concern to another, with no fixed sequence and often without adverse effects. How an adolescent negotiates these challenges depends on individual experience and the psychological resources available for dealing with these experiences (Coleman & Roker, 1998). However, when more than one important issue has to be faced simultaneously, there are increased levels of risk - e.g. lack of family resources + new school + new peer group. Adolescents may have sensitivities and vulnerabilities deriving from the psychological

processes emerging at the time (Rutter, 1989). Some may have good self-confidence and be very resilient whilst others may have more limited personal and psychological resources. Support, especially from within the microsystem (Bronfenbrenner, 1986, 1979), helps adolescents negotiate difficult periods. However, where this support is absent, levels of risk increase.

### *2.3.2.1 Identity Development*

The key psychological task of the adolescence stage is identity formation (Erikson, 1968; Marcia, 1980; Adamson & Lyxell, 1996; Masten & Coatsworth, 1998). Erikson's epigenetic model provides the researcher with an organising heuristic for identifying the salient issues involved in psychosocial development. His 5<sup>th</sup> stage stresses the critical importance of identity development and individuation during the adolescent years. For Erikson, this major developmental task involves the integration of concept of self, body-image changes, sexuality, intimacy and other more minor psychosocial changes. The peer group is the main social mechanism which mediates the individuation process. Where the values of the peer group are consistent with important others, such as parents and teachers, the individuation process is relatively more straightforward. However, contemporary western society is very complex with a myriad of possibilities as to what is acceptable and so there may be considerable inter- and intra- individual differences in the individuation process.

Building on Erikson's work, Marcia (1980) identified four identity statuses typical of the second decade of life. They include identity achievement, identity foreclosure, identity moratorium and identity diffusion. An adolescent's status may differ depending on the particular domain of development in question. Some may be well advanced in one

domain but very delayed in another. Typically a coherent sense of identity does not occur before late adolescence and identity continues to undergo modification across the lifespan.

Shirk and Renouf (1992) have emphasised how the process of identity formation during adolescence encompasses a number of uniquely different challenges that present themselves at different times. They also pointed out how resolution of these tasks has important implications for later psychological well-being. Coleman and Roker (1998) suggested that the challenges regarding identity formation during adolescence should be receiving more attention in contemporary research. Highlighting the importance of adolescents reassessing life choices and supplanting a choice biography for a standard one, Beck and Beck-Gernsheim (2002) found that many young persons were fearful about their futures and wished to postpone life choices.

In an Irish study, O'Connor (2008) examined the biographical narratives of 10 to 17 year-olds growing up at the turn of the millennium, a period when Irish society was changing culturally, socially and economically. Having analysed the texts written by these young persons, O'Connor found that the 10 to 12 year-olds were more confident about a predictable future than the 14 to 17 year-olds. The older group expressed the wish to hold the future at bay and to avoid commitments, a pattern of behaviour synonymous with the identity moratorium stage. Some gender differences emerged, with female narratives containing more expressions of fear and anxiety about their life course than male narratives. O'Connor questioned whether the findings reflect differences in age, with the older group using more reflexivity, or whether the different societal context is the explanation. She also suggested that the reluctance of the older group to reassess and

make life plans may be a characteristic of adolescent identity development in post-modern Ireland.

Recent evidence that the lack of confidence in the future reported by the 14 to 17 year-olds in the O'Connor textual analyses (2008) may become reversed as young people transition from adolescence into emerging adulthood comes from a report called *Being Young and Irish* (2012). This report was compiled by researchers from The Centre for Social and Educational Research, Dublin Institute of Technology. It collates the results of a consultation process, initiated by the current President of Ireland, Michael D. Higgins. This process took place between May 25th and September 29<sup>th</sup> 2012 and involved verbal and written contributions from 775 young persons aged 17-26 years. The overall finding was that the views of these young people were “steeped in positive images, thoughts and feelings about Ireland, the Ireland that they want to see come back to take a central place in Europe and the world or to take a new place in the world of the future” (Office of the President, *Being Young and Irish 2012*, p. V). These are encouraging findings from the slightly older age group, given the challenges being faced by young people in post-modern Irish society.

#### *2.3.2.2 Identity Development and Post Modernity*

In the past, adolescents felt strong ties with family and other social and cultural categories such as nationality, religion, gender and social class. However, there are indications that, in the modern era, the salience of these categories is no longer clear and they are in danger of becoming irrelevant. Beck and Beck-Gernsheim (2002) talked about the experience of fragility and vulnerability that is typical of the post-modern era, due to increased individualisation and the fast changing nature of the social and cultural milieu.

They also mentioned the processes whereby adolescents are becoming dis-embedded from social structures that are no longer meaningful to them as they negotiate their paths in life. Beck and Beck-Gernsheim have also suggested that contemporary young people see themselves as having more freedom of choice. They identify less with societal norms with the result that adolescent identity is becoming less and less ascribed.

However, the constant need to create and re-create the self can create existential anxiety, with the result that adolescents are forced to turn inwards and focus more on their internal emotional states. As a consequence, the challenges involved in negotiating the adolescence stage of development are being met without the adolescent feeling embedded in social structures that provide some levels of existential confidence and security. In addition, the extent to which gender narratives are constructed by individuals themselves, or as a result of societal hegemony, is dependent on the extent to which each young person feels embedded within or dis-embedded from societal structures relevant to their life experience.

### *2.3.2.3 Identity and Peer Influence*

Typically during the teenage years there is a gradual detachment from parents, with the adolescent spending an increasing amount of time with peers. The development of strong peer relationships is the most important social task to be achieved during adolescence (Erikson, 1968) and peer approval and support become increasingly salient (Santrock, 2008). The peer group is an important social mechanism that mediates the individuation process, particularly during adolescence when same and opposite sex relationships become more intimate. Erikson has suggested that, during adolescence, the goal of individuation is to align the sense of one's own identity with one's social relationships.

Where the values of the peer group are consistent with important others such as parents and teachers, the self-concept develops in a relatively straightforward way. Where the values are significantly different, the process is more conflictual.

As a consequence of peer relationships becoming more salient during adolescence, feedback from this group impacts on identity and the maturing self-concept (Adams & Gullotta, 1983). Good peer relationships have been associated with more positive identity and enhanced self-concept (Hirsch & DuBois, 1991; Savin-Williams & Berndt, 1990) while poor peer relationships have been associated with low self-concept (Demo & Savin-Williams, 1992). Importantly in terms of psychological development, adolescents with low self-concept attempt to gain peer approval by giving in to peer pressure and conforming to perceived peer norms. The result of this conformity may be a short-term positive effect on self-concept due to those adolescents feeling validated and less rejected (Epstein, 1986) but the long-term effects are worrying.

#### *2.3.2.4 Identity and Self-concept*

Whilst identity and self-concept are different constructs, they are related. Interpersonal theory (Benjamin, 1974) subdivides identity into 'self-concept' and 'introject' and accepts that early life experience is a critical factor in the development of the self-concept and the introject (Grotevant, 1986). Increased focus on the self during adolescence leads to changing self-perceptions and modification of the identity status, a process known as individuation. The individuation process, which is influenced by a number of different determinants, involves a gradual assimilation of all the various images and feelings that an individual has about her/himself into a unified functioning whole termed the self-concept. Asci (2002) affirmed how the self-concept is a good rubric for examining

individuation and maturation of the self-system.

## **2.4 Proximal and Distal Influences on Psychosocial Development**

Both good and bad experiences influence development. Importantly, adverse experiences do not always have a negative effect. They can contribute to positive developmental outcomes, because adversity can help young persons to build coping skills and resilience that may constitute protective factors in the longer term. Elder (1979) gave the example of how, during the economic recession of the 1930s, older children were given more duties and responsibilities which proved adaptive, since the long-term outcome was that they developed new coping capacities and skills.

Since the dynamic processes of complex interactions and developmental outcomes are multiply determined it is imperative to move away from a single determinant perspective. Socioemotional development is influenced by many different factors. These multi-determinants include both proximal and distal influences from the social, economic and physical environments in which children develop (Berkman & Kawachi, 2000).

### *2.4.1 Proximal Influences*

In attempting to identify the more salient influences, Sameroff (2009) argued for the importance of the immediate proximal environment as a primary influence on a young person's psychosocial development. He emphasised the need to examine the microsystem characteristics (Bronfenbrenner, 1979) that contribute to positive or negative outcomes. The family is a key microsystem influence on adolescent functioning and intraindividual change.

### *The family as context*

Characteristics of the immediate family environment may be favourable, unfavourable or even highly adverse. Chronic adversity is mediated by idiosyncratic characteristics of the family environment and family economic hardship has been directly linked with symptoms of psychological distress among adolescents (Conger & Conger, 2002). Ge, Conger, Lorenz and Simons (1994) examined indirect links between chronic adversity and adolescent psychosocial functioning and found that economic hardship impacted on the quality of the parents' marital relationship and parent/child relationships. Sameroff (2009) has highlighted how family SES, a strong determinant of parental sociocultural values, impacts considerably on psychosocial development, with low SES a risk factor.

In contrast, focusing on protective factors, Grotevant and Cooper (1986) proposed that an adaptive psychosocial outcome is more likely if

- the family shows warmth, harmony and cohesion
- adequate social supports are available
- the child has positive characteristics such as high self-esteem and a positive social orientation.

Social supports in the form of relationships with parents and peers are important proximal protective factors. However, other forms of social support from more distal environments also impact on development.

#### *2.4.2 Distal Influences*

Based on Bronfenbrenner's theorising (1979), characteristics of the sociocultural and sociohistorical contexts constitute important macro- and chronosystem influences on development. Whilst these more distal influences are harder to identify and quantify, they



nevertheless impact on a young person's psychosocial maturation. Phinney and Goosens (1996) emphasised the importance of the dynamic interplay between social context and identity formation and pointed out that too little attention has been paid to the way in which cultural, ethnic and geographical contexts influence psychosocial development. Wichstrom (1998) alluded to the way in which psychological growth is affected by culturally defined standards of what constitutes normal development. Predominant cultural values and ideals are internalised, influencing how young persons view themselves and priming them to act in certain ways. Societal expectations reinforce behaviours, often leading to further internalisation of these stereotypical behaviours and expectations.

Social changes in western countries over the last two decades have had profound effects on the psychosocial development of young people. Coleman (1997) has referred to the fact that, growing up in environments that include marital instability, social exclusion, earlier sexual activity, substance use and heightened media influence, may challenge the adolescent's ability to cope during this transitional time and may impair self-concept development.

Some of these challenges have been evident during the last decade of the 20<sup>th</sup> century and the early years of the 21<sup>st</sup> century in Ireland, where a great deal of economic and social change has been experienced. These changes include:

- a period of sustained economic growth known locally and internationally as the 'Celtic Tiger'
- a shift from high levels of unemployment to almost full employment, with both parents and all members of a family over 16 years of age potentially able to work either full time or part time
- changing norms and expectations

- stronger media influence.

The effects of the above differ depending on family characteristics and the intra-individual propensities of adolescents. In some cases these societal changes have had positive sequelae, but in other cases the results have been more negative. On the positive side, young people have more disposable income to socialise with friends and to purchase self-enhancing items such as clothes and cosmetics. On the negative side, there is less time for parenting due to work pressures and, in some cases, the increased wealth may have led to more substance use and abuse (e.g. Flanagan et al., 2002).

In the 1990s, American researchers Achenbach and Howell (1993) found longitudinal evidence that adolescent emotional and behavioural problems were on the rise. Nearly a decade later, Irish research found a similar increase in adolescent dysfunction, with recorded increases in youth suicides and violence (Stanley, 2001). Stanley offers some possible explanations for this increase including the gap in literacy between high/low SES groups, changes in family functioning in terms of divorce/repartnering and the increased media power and influence on adolescents in contemporary Irish society.

Having examined some important research findings regarding biopsychosocial change during adolescence, the next section focuses on patterns of stability and change during the adolescence stage.

### **2.5 Continuity and Change in Development**

Developmental psychology emphasises how current socioemotional functioning is influenced not just by immediate experience but also by the cumulative effects or

'sequelae' (Rutter, 1989) arising from positive or adverse experiences during earlier developmental periods. The chain effects of these earlier influences may be considerable.

### *2.5.1 Continuity and Change*

A recurring debate within developmental science is about continuity and change and, for many psychological constructs, there is evidence of both. Greene (2003), while acknowledging that developmental psychology seeks to describe behaviours that are changing constantly, emphasises the importance of explaining continuity as well as change. Continuities occur as a result of earlier learning and earlier structural and functional change and, in general, child behaviour predicts adolescent behaviour. The effects of early childhood experience may not be as salient for immediate behavioural change as it is for chain effects (Sameroff, 1993; Rutter, 1989). Rutter highlighted the importance of elucidating the processes and mechanisms involved in such direct and indirect effects. This led to increased differential research into paths of development from childhood through adolescence (Caspi & Moffitt, 1993; Rutter & Rutter, 1993).

Greater clarification of developmental pathways may result from studying the ways by which individuals maintain stability or change at various developmental periods, as well as from examining the concomitants and antecedents of continuities and discontinuities (Block & Robins, 1993). Whilst identifying the precise chain effects extending from antecedents to consequences is not scientifically feasible, it is possible to investigate the pathways that stretch from childhood through adolescence by analysing some of the complicated linkages that have built up over time. Investigation of self-concept developmental patterns between late childhood and late adolescence is a primary focus of this research.

### *2.5.2 Developmental Pathways*

Compas (1995) suggested that pathways involving significant change during adolescence are rarer than stable trajectories but may reveal more about the personal and contextual factors that account for developmental patterns. Most children grow up in environments that foster positive growth. However, some are adversely affected by impoverished physical or psychological environments that may impact at one or all of the stages. The demands of negative life events on the young person may encourage new competencies or may overwhelm her/him, resulting in high levels of distress and disorder. Mismatches between the demands of the environment and the adaptive capacities of the individual are borne out in later psychosocial adjustment and may have different short- and long-term effects.

Since experiences of earlier stages impact cumulatively on later functioning, it is always desirable to measure developmental status at more than one point in the lifespan to date. This has led to longitudinal research examining individual differences in pathways of development from childhood through adolescence (Moffitt, 1993; Rutter & Rutter, 1993; Sameroff et al., 1993; Alsaker & Olweus, 1992; Petersen, Sarigiani & Kennedy, 1991; Rutter, 1989). This research has found a great deal of individual variation in developmental pathways, resulting in diverse outcomes.

With regard to antecedent and concurrent influences of risk, Moffitt (1993) suggested 2 distinct pathways

- (i) pathway between early life risk factors and a chronic, persistent life course trajectory
- (ii) pathway between contemporary risk factors and maladjusted behaviour

that is confined to a specific life stage.

The first pathway has long-term consequences and is arguably the more serious. The second pathway has more short-term consequences and may include behaviours such as delinquency or short-term substance use that are specifically related to the adolescence stage. Moffitt provided some examples of short-term consequences such as boys with antisocial behaviour problems becoming temporary role models to other more well-adjusted boys who are seeking self-definition and mature status. Moffitt also talked about the 'maturity gap' created by the incongruity of achieving biological maturity at adolescence without recognition of adult status. She pointed out that adolescent delinquency constitutes an adaptive attempt to bridge the gap between changing self-perceptions and circumscribed social roles. It is a maturity substitute found in industrialised cultures and arises as a result of the search for self-definition and expression of autonomy.

In her model of adolescent offending, Moffitt identified two subgroups. The first concerns youths who experiment with risk-taking behaviours that are limited to adolescence. The understanding is that these behaviours may be specific to the adolescence years and do not reflect the development of a broader deviant lifestyle. In the second subgroup, adaptive development during childhood is followed by a persistent decline in functioning during adolescence. The negative trajectory is likely to be explained by exposure to dramatic changes in proximal or distal environmental circumstances that have had a negative effect on psychosocial adjustment.

In a different model, Compas (1995) identified five developmental trajectories during

adolescence which may be either normative or problematic:

- (i) **stable adaptive functioning** - defined as the absence of involvement in delinquent, antisocial activities or serious emotional problems and a positive sense of self. This trajectory is usually reflected in youths from low-risk environments and is the one observed in most adolescents
- (ii) **stable maladaptive functioning** - typified by a history of aggressive, antisocial behaviour during childhood and adolescence. Young persons in this category have been exposed to chronic stress and adversity in the absence of resources to mitigate against these risks
- (iii) **adolescent turnaround** - with this trajectory, a negative developmental pathway is reversed during adolescence due to important life events and opportunities
- (iv) **adolescent decline** - typified by the appearance of some type of dysfunction that had not previously been observed
- (v) **temporary deviation** – this trajectory assumes that adolescence is a time of experimentation and risk taking which may be frequent, normal and even adaptive, but the problem is only temporary.

In their critique of recent trends in adolescence research, Perry and Pauletti (2011) have highlighted the need for researchers to consider development across different stages and have cautioned against considering adolescence as an isolated stage. They recommend that researchers adopt a more continuous approach by linking developments in adolescence with earlier and later stages in the lifespan. They discuss how social behaviour in adolescence that appears divergent from patterns in childhood may in fact be linked to the earlier stage but that the different challenges experienced during adolescence lead to those earlier patterns being expressed in different ways.

## **2.6 Risk and Protective Factors and Psychosocial Development**

Risk factors include characteristics of the person or environment that mediate maladaptive developmental outcomes. Protective factors moderate negative outcomes under conditions of high risk but do not show in association with developmental

outcomes under low risk (Compas, 1995). Leadbeater, Blatt and Quinlan (1995) and Nolen-Hoeksema and Girgus (1994) differentiated between static and nonstatic risk factors. Static risk factors include gender and SES whereas nonstatic risk factors include more temporary sporadic episodes such as exposure to traumatic life events, teenage motherhood and maternal marital status.

Rutter (1989) emphasised the importance of risk and protective factors and how changes in the level of risk and protective factors, in earlier stages as well as concurrently, influence socioemotional adjustment. There is a myriad of individual differences in developmental pathways through childhood and adolescence; this makes it incumbent on researchers to attempt to explain the processes or mechanisms that account for positive and negative outcomes. Based on the assumption that development during adolescence is linked to prior growth during childhood, attention to specific proximal and distal risk and protective mechanisms is important for understanding psychosocial adaptation (Garber & Hollon, 1991). Explaining these processes requires identification of factors that have placed some young persons at risk of a negative trajectory and factors that have protected others from negative paths in spite of exposure to known sources of risk (Compas et al., 1995; Rutter & Rutter, 1993; Anthony & Cohler, 1987; Garmezy, 1985).

It is however important to reaffirm that the effects of risk and adversity are not always negative. Sometimes adverse experiences are protective and adaptive in the longer term, since they help to build coping skills and resilience. Haggerty et al. (1994) described large-scale studies of factors affecting resilience in populations considered to be at risk. Developmental outcome depended on the number of risk and protective factors, as well as on individual resilience. The presence of one significant adult, attachment to family

and positive social networks were found to be critical protective factors during the second decade of life. Coie, Dodge and Kupersmidt (1990) found that interventions aimed at strengthening some of these protective factors reduced the likelihood of negative developmental outcome among adolescents who were most at risk.

### **2.7 Gender Difference and Psychosocial Development**

Gender as a mediating factor is receiving increased attention in adolescence research. There is a growing consensus that the different experiences of young females and males need to be addressed (Greene, 2003; Findlay & Wright, 1994; Lees, 1993). In their recent paper, Perry and Pauletti (2011, p. 61) listed some of numerous challenges adolescents face including “abrupt changes in their bodies, managing their sexual interests, forming new kinds of relationships and planning their academic and occupational futures”. They emphasised how gender influences the ways in which youths manage these various challenges. This is because the psychosocial changes experienced during adolescence are usually different for both genders and are likely to vary according to the construct being measured.

Evidence of timing on gender variations in psychological adjustment in adolescence come from research by Ebata et al. (1990). They found that where adolescent boys were identified with psychological problems, the problems preexisted the adolescent phase but that adolescent girls manifested psychological difficulties for the first time during adolescence. Rutter (1986) also found gender variation when he confirmed that only girls showed increasing depressive affect over the adolescent period.



## **2.8 Summary and Implications**

During adolescence there is further maturation of the self and identity with evidence of both continuity and change in development. This maturation is influenced by proximal and distal influences from the various contexts within which young persons are developing. Some researchers focus on the fact that adolescent emotional and behavioural problems are on the increase in post-modern societies whereas other researchers adopt the 'good teen' approach and prefer to emphasise the positive socioemotional changes that take place during this developmental stage. With regard to risk, there is evidence that some adolescents develop resilience as a result of more negative experiences. However, where there is too much adversity and too little support, young persons may experience difficulties in negotiating their way through this important stage in the lifespan. In addition, how adolescents negotiate their way through this important developmental stage may be gender neutral or gender specific. These factors reiterate the need for self-concept researchers to examine age and gender differences in the development of self and identity during adolescence.

## **CHAPTER 3**

### **THE SELF-CONCEPT**

#### **DEVELOPMENT, CONCEPTUALISATION AND MEASUREMENT**

Following reference to philosophical and psychological understandings of the self, this chapter examines a number of psychological theories relevant to the development of a sense of self. It discusses the emergence and maturation of the self-system, with particular reference to the reassessments that take place during adolescence. The chapter then defines the psychological construct known as the self-concept and discusses the relationship between a positive and well-differentiated self-concept and adolescent socio-emotional adjustment. Important recommendations arising from the research by Shavelson et al. (1976) with regards to conceptualising and operationalising the self-concept construct are outlined. Background information regarding the self-concept measuring instruments designed by Piers and Harris in 1963 and 2002 is provided.

#### ***3.1 Philosophy of Self***

Philosophising about the self has a long tradition. The earliest account dates back over 2,500 years to the famous Greek aphorism ‘know thyself’ carved into the lintel of the Temple of Apollo at Delphi. In Aristotelian philosophy, what distinguished humans from animals was consciousness of self. It was during the 17<sup>th</sup> century that the idea of a self began to take a central place in Western Philosophy.

This concept of an autonomous self was hotly debated by the 17<sup>th</sup> century empiricist and rationalist philosophers. Important philosophers in the empiricist camp included John Locke and David Hume. Locke placed his emphasis on the socially constructed nature of the self. Hume was a more rigid empiricist, and philosophised about the very genesis of the idea of self. Hume postulated that all ideas derive from sense impressions and therefore the very idea of the self having an impression of itself was unintelligible and “just an illusion” (Howell, 2010, p. 460). Hume’s next challenge was to explain why and how he and everyone else had some idea of an abstract self. His response was that the self is made up of sense impressions and that these thoughts or sensations combine to create an elusive, abstract self. Coming from the rationalist camp, Descartes focused more attention on mental processes and affirmed that the self is involved in every mental act. His statement ‘cogito ergo sum’ gives implicit recognition of an independent ‘self’ or ‘I’ in this process.

The equivalents of these 17<sup>th</sup> century philosophers in the modern era fall into two categories. The first category includes the ‘logical positivists’ and ‘analytic philosophers’ such as Russell, Ayer and Ryle (Levin, 1992, p. 125) who maintain that the self is only an illusion and questions about it are meaningless. The second category includes the ‘phenomenologists’ and ‘existentialists’ such as Husserl, Heidegger and Sartre (Levin, p. 125) who place the self at the centre of their philosophies. Other contemporary philosophers who have contributed to the debate include Wittgenstein who, to some extent, adopts both views in that he is a positivist but allows the phenomenal.

Historically, discussion about the self extended beyond Philosophy to disciplines such as Theology and Metaphysics. Contemporary contributors to the debate come from a wider community which includes a number of sub-disciplines in Psychology including cognitive psychology and neuroscience.

The next section moves from a philosophical approach to more psychological understandings of the self.

### **3.2 Psychology of Self**

What is undeniable is that Psychology's interest in the self is rooted in the philosophical tradition. The level of interest in this existential issue tends to fluctuate according to context and historicity and according to the psychological paradigm dominating the field at the particular time. Towards the end of the 19<sup>th</sup> century, William James included a full chapter on the self in his two volume book *The Principles of Psychology* (1890/1983). In this chapter, James makes the basic distinction between the self as 'knower', the subjective self or 'I' and the self as 'known', the objective self or 'me'. The 'I' organises and interprets experience in a purely subjective manner and continuously provides us with a particular identity. The 'me' is the object of our perception when we reflect on ourselves. It equates to self-awareness and includes all categories by which we define ourselves including for example age, gender, mother and teacher ( Schaffer, 1996).

James's focus on the self was not sustained and psychological interest in the self declined during the early part of the 20<sup>th</sup> century. This decline was largely due to the rise

of Behaviourism, a school within Psychology that primarily focused on the objective measurement of observable behaviour. Behaviourism dominated the discipline of Psychology for the first 40 years of the 20<sup>th</sup> century. However, following important contributions made by Carl Rogers and the other humanistic psychologists in the middle of the 20<sup>th</sup> century, the last 60 years have witnessed increased psychological focus on the self. It is no longer perceived as a metaphysical issue but as a legitimate psychological construct, or a complex system of different constructs, which psychologists attempt to measure empirically (Schaffer, 1996).

Over time, the labels and precise definitions have changed. More recently, Neisser (1988) has used the term ‘conceptual self’ and Gallagher (2000) the term ‘narrative self’ to describe a more or less unified, coherent self that is extended in time to include memories of the past and intentions toward the future. This sense of an elusive, abstract entity, providing continuity between past and future, is common to both historical and contemporaneous psychological and philosophical understandings of the self.

### *Psychological Definition of Self*

The self is the component of consciousness that gives us a sense of personal existence. It is made up of our subjective experiences and constitutes the central core of our identity. This “distinctive centre of our experience and significance” (Hamachek, 1992, p. 4) contains our basic beliefs, attitudes and values and evolves over time as a result of a complex process of interaction between genetic potentials and environmental experiences. The self gets increasingly complex through a gradual process of “increasing

differentiation of self from others and a progressive freeing of self from contextual and social constraints” (Hamachek, 1992, p. 4). This process involving the formation and maturation of the self during childhood and adolescence is influenced by the level of individual cognition as well as social experience.

### **3.3 Self-theories in Psychology**

Self-theories of personality are based on the premise that subjective perceptions determine behaviour, that the way in which individuals perceive events determines the way in which they act. At the turn of the 20<sup>th</sup> century, Cooley (1902) used the term ‘looking glass self’ to help describe how a person’s view of her/himself reflects other people’s perceptions and opinions.

Over the intervening century, a number of theoretical approaches to understanding the primary sources of self-evaluation have been put forward. These different theories are summarised briefly in the next section and pertinent research that has been informed by the different theoretical perspectives is briefly mentioned.

#### *3.3.1 Social Comparison Theory*

According to social-comparison theory (Festinger, 1954), humans evaluate themselves by comparing themselves with referent others. Focusing specifically on the adolescence stage, Whitbeck, Simons, Conger, Lorenz, Huck et al. (1991) have suggested that differences in family socioeconomic status, arising from economic hardship and reflected in dress code, living conditions and parental employment status, become especially

important during this developmental stage. This is because adolescents become more aware of the indicators of economic disadvantage and compare themselves positively or negatively against someone who is similar in background, ability or opinion. Alcock, Carments, Sadava, Collins and Green (1997) highlighted the importance of self-reference, pointing out that when the goal is self-assessment, young persons compare themselves with someone who is their equal, when the goal is self-improvement they compare themselves with someone better and when the goal is self-enhancement they compare themselves with someone inferior. Any of these comparisons influence developing self-conceptions.

### *3.3.2 Reflected Appraisals Theory*

Reflected appraisals theory was put forward by Harry Stack Sullivan in the 1940s. It is a philosophical non-clinical theory which postulates that, from birth, children are subjected to a constant flow of reflected appraisals from the reactions of others and, as a result, their concept of self is based on others' opinions and perceptions. This theoretical understanding is consistent with the earlier view of Cooley (1902) who also argued that a child's sense of self is influenced by the appraisals of important others. Appraisals that have been critical, judgemental and hostile threaten the self-image which mirrors these negative appraisals whilst appraisals that have been positive and constructive create a self-image which is much more positive and approving. The emerging sense of self is thus the dénouement of all the positive and negative messages that have been experienced, particularly from significant others - people whose opinions are especially valued.

In young persons, reflected appraisals, particularly those of parents, lead to the formation of private mental images of the self. These acquired positive and negative images impact considerably on socioemotional development. Reflected appraisals theory acknowledges that a positive self-image is an important aspect of mental health because it influences, and is influenced by, inter- and intra-personal experiences. With regard to gender effects, Mead (1934) had previously highlighted how reflected influences from the sociocultural environment, particularly the extent to which societal standards and expectations are different for females and males, contribute to gender differences in self-definition. Examples of these reflected influences in contemporary society include sexism and media influence, both of which reinforce stereotypical gender patterns.

### *3.3.3 Self-attribution and Competency Beliefs Theory*

Self-attribution theory, put forward by Kelly in the 1960s, emphasises how self-evaluations of one's own behaviour reflects an individual's appraisal of her or his achievements and competencies. The competencies model, first put forward by William James in 1890, posited that people base their self-conceptions on their beliefs about their accomplishments in certain areas. Competency beliefs theory is very closely related to self-attribution theory because it emphasises the close connection between competency-related beliefs and the self-system. Future success in specific areas is influenced by how good a young person thinks she/he is in relation to others on various tasks. This influences the confidence a young person has in her/his ability to develop new skills and abilities and anticipation of future success. Supporting evidence comes from Shore,



Massimo and Ricks (1965) who found that positive changes in competence preceded self-concept reassessment in a positive direction.

Researching the period during late childhood and adolescence, Marsh (1989) and Shavelson et al. (1976) found that perceived self-competency declined and Marsh, Craven and Debus (1998) showed that these downward trends were consistent across self-concept domain, cohort and longitudinal comparisons.

#### *3.3.4 Self-perception Theory*

This theory, put forward by Bem (1972), posits that a young person's self-perceptions influence expectations and in turn influence behaviour. As a result of observing their behaviour, young people develop an awareness of their individual attitudes, feelings, values, dispositions and other internal characteristics which contribute to increasingly accurate self-perceptions and on-going maturation of the self-system. Hamachek (1992) used the example of how young people welcome a challenge when they feel confident about their ability to meet that challenge whilst those who are not confident fear the same challenge.

#### *3.3.5 Behavioural Consistency Theories*

Lecky was an early theorist who, in the 1940s, postulated that humans strive towards consistency in all aspects of their lives and tend to behave in ways that are consistent with their self-perceptions. As a consequence, these self-perceptions are transformed into self-fulfilling prophecies by persons behaving in a manner consistent with their self-image.

Preconceptions prime young people to act in a certain way. Importantly, once a stereotype is formed there are consistent reactions which shape that stereotype. Proximal and distal influences often reinforce these behaviours and in this way self-fulfilling prophecies are realised.

### *3.3.6 Social Identity Theory*

This theory emphasises how the social groups and categories to which one belongs influence self-perceptions. Due to the sense of belonging to a particular group, the behaviours, attitudes and norms that pertain to that group influence individual behaviour and result in conformity with the group stereotype (Alcock et al., 1997).

### *3.3.7 Summary*

The aforementioned theories provide a basis for understanding some of the different conceptualisations that Psychology has regarding the way in which the self develops through on-going reevaluation of the self-system during childhood and adolescence. Whilst the precise emphases may differ from theory to theory, common themes include self-reference, competency beliefs and social comparison.

The next section focuses on the emergence of the self-system in infancy and childhood.

## **3.4 Self-evaluation and Early Foundations of the Self**

Early foundations of the self emerge with the development of a primitive sense of separateness evident in the 3-month-old infant. Awareness of a sense of self-permanence

happens at around nine months as a consequence of the infant's cognitive ability to understand object permanence. From this point forwards, the infant becomes increasingly aware of her/himself as a conscious person with continuity of memory and experience through hearing a name applied to her/himself and to actions and possessions (Allport, 1961). The first signs of the categorical self, manifest in self-recognition, can be seen in the behavioural responses of toddlers aged between 18 and 24 months in the classic 'red dot on the nose' and mirror experiment (Lewis & Brooks-Gunn, 1979). This is the stage when toddlers begin to use their own names and are able to categorically define themselves in terms of age, sex and size. With regard to the self-evaluations of very young children, Stipek (1984) concluded that, not only were their evaluations inaccurate, but they typically overestimated their abilities and competencies.

During the middle childhood stage a global sense of self emerges and the basic foundations of the self-system are laid. Harter (1986a) suggested that, as a result of cognitive maturation and the child's emerging ability for less concrete evaluations, children at the middle childhood stage begin to make psychological as well as physicalist self-evaluations. Similarly, Phillips and Zigler (1980) pointed out how cognitive changes, including the increasing sophisticated use of language, result in increased self-reflection. The acquisition of new skills underpins the increased ability to differentiate between realistic and idealistic self-evaluations during this developmental stage. Shirk and Renouf (1992, p.67) say "there is little doubt that the differentiation of competence judgements during middle childhood reflects the overall differentiation of the child's cognitive

system”. During these middle childhood years, it is critically important that the maturing child align her/his concept of self with the various competencies that are developing.

When development during childhood proceeds normally and the basic foundations of trust, autonomy, initiative and industry have successfully been laid (Erikson 1968), the overall personality structure contains a healthy and positive self-concept. However, adverse influences during these early stages may give rise to restricted development of the self-system, with experiential components which are growth inhibiting and negatively defined.

The next section focuses on the late childhood and adolescence stages.

### **3.5 Self-evaluation in Late Childhood and Adolescence**

As previously stated, for any research investigating psychosocial change across different developmental stages, Erik Erikson is a very important theorist. His epigenetic model (1968) posited that mastery and identity development represent stage salient developmental tasks. He identified four sub-tasks that are especially relevant to late childhood and adolescence:

- (i) accuracy in self-evaluation
- (ii) coordination of self-worth with perceived competence
- (iii) conservation of the self
- (iv) maintenance of self-esteem.

There is much evidence that a child's ability to adopt a more realistic perspective of her/his thoughts, emotions and behaviour increases significantly during late childhood and adolescence (Edelstein, Keller & Whalen, 1984; Selman, 1980). The developmental progression is from an understanding based on behaviours, physical attributes and physical competencies to one based on psychological attributes. This progression is underpinned by cognitive maturation and, in particular, the Piagetian shift from concrete operational to formal operational thinking. Developmental psychologists use this shift as a valid explanation for the coincident modification and differentiation of self-perceptions during late childhood and adolescence. As they mature, children no longer evaluate themselves in terms of global self-perceptions, but begin to differentiate between their abilities in a number of domains (Harter, 1999, 1996; Marsh, 1989; Marsh & Shavelson, 1985). This pattern of differentiation continues throughout adolescence (Mullener & Laird, 1971). A positive and well-differentiated sense of self is an established correlate of psychosocial adjustment and an important measure of adaptive functioning in late childhood and adolescence.

### ***3.6 The Self-concept as a Valid Measure of the Self-system***

In the literature, the different terminologies used for self-related constructs lead to much confusion. The term 'self-concept' is frequently used to indicate several different constructs including self-esteem, self-worth and self-acceptance. Over a quarter century ago, Shavelson, Hubner and Stanton (1976) emphasised how definitions of self-concept were imprecise and varied from one study to the next. The most common confusion seems to happen between self-concept and self-esteem. Some researchers have taken the

view that these are conceptually and empirically distinct (Fleming & Courtney, 1984), that self-concept is the cognitive component of the self and self-esteem the evaluative component (Callan, Gallois & Noller, 1992; Greenwald, Bellezza & Banaji, 1988). Others contradict this view, stating that there is no clear distinction between self-cognition and self-evaluation (Shavelson et al., 1976).

In spite of Hattie and Marsh (1996) highlighting the importance of providing meaningful distinctions between self-concept and self-esteem in future research, there are as yet no studies in which the distinctions have been operationalised. However, the issue has largely been resolved by meta-analysts Wilgenbusch and Merrell (1999) who claim that general self-perceptions are synonymous with self-esteem and that self-esteem comprises a global evaluation of positive and negative self-attributions similar to what is understood by the term global self-concept.

Whilst great advances have been made in defining the characteristics of self-concept, the confusion of terms that still exists makes it imperative for researchers to define precisely their understanding of the term self-concept within the focus of their research. Arguably, the best way of defining the construct is by examining how it was conceptualised in past psychological research. Huitt (2009) and Purkey (1988) conceptualised the self-concept as the totality of a complex, organised and dynamic system of learned beliefs, attitudes and opinions that each person perceives as being true about her/himself. Their conceptualisation is integrated into the author's definition of self-concept as:

*the organised cognitive structure of the self, comprising a collection of beliefs about the kind of person one is, derived from the sum total of all experiences. This organised*

*cognitive structure constitutes the fundamental organising code that filters and mediates all thoughts, feelings and behaviours. Each individual evaluates her/his experiences in relation to the self-concept which filters and holds together all the psychological functions of that individual.*

With regard to the self-esteem/self-concept dilemma, bearing in mind the recommendations of Wilgenbusch and Merrell (1999) and the fact that there is as yet no empirical proof that global self-concept and self-esteem are qualitatively different constructs, the author believes that the terms can legitimately be interchanged in self-concept research.

### **3.7 The Self-concept as Process or Structure**

In developmental science, the self-concept is a recognised psychological construct and an important measure of psychosocial adaptation. However, the role played by the self-concept in social and psychological processes has been conceptualised differently by psychologists over the past three decades. The predominant theoretical paradigm regarding the genesis of self-concept is psychodynamic, due to the emphasis on the transactional ways in which the self-concept and behaviour interact at the level of the individual as well as at the level of the individual and the environment.

A central debate has been about whether the self-concept should be viewed in terms of 'process' or 'structure'. Some researchers view the self-concept as a process because it changes dramatically depending on the situation and the particular cues present in that

situation. Other researchers emphasise its cognitive structure and focus on the representational ideas that develop as a consequence of the ongoing monitoring, reflection and evaluation of experiences that take place during childhood.

Supporting the latter position, Epstein (1973, p. 407) has defined the self-concept as “a subsystem of internally consistent, hierarchically organised concepts, contained within a broader conceptual system”. Markus (1977) and Markus and Sentis (1982) also embraced the structural view with their focus on mental constructs or schemas that evolve over time, through the adaptive cognitive processes of assimilation and accommodation. These self-schemas constitute cognitive generalisations about the self, derived from past experiences. Schemas help organise self-related information, guide individual self-perceptions and mediate the cognitive construction of a reasonably stable sense of self that is crucial to psychological adjustment. Based on their self-schemas, children develop primary dispositions and response styles that are manifest through their behaviour consistently (Burns & Seligman, 1989). The constancy of these characteristics permits the growth of a central core of characteristics that is the basis of the self-concept.

Support for the structural view is prevalent amongst contemporary developmental psychologists who perceive the self-concept as a relatively stable cognitive structure, comprising a myriad of hierarchically organised concepts or domains that influence the processing of information in a number of different ways (Anderson, 1992). The emphasis is on how newly acquired abilities, arising as a function of age and maturation, provoke changes to the structure and content of the self-concept.



The following section deals with issues relating to the conceptualisation and measurement of the self-concept construct.

### **3.8 The Self-concept Construct - Conceptualisation and Measurement**

During the 1970s and 1980s, self-concept research was primarily focused on academic self-concept. Psychologists interested in educational evaluation and research began to consider the salience of academic self-concept in moderating and mediating developmental outcome. The result was a broadening of the research focus to the relationship between academic and non-academic self-perceptions and general self-concept and an increase in the number of published studies. Unvalidated assumptions made by self-concept researchers at that time were challenged in the seminal paper, published in 1976, by Richard Shavelson, Judith Hubner and George Stanton. This paper highlighted the need for an in-depth exploration of important theoretical considerations regarding how the self-concept construct was conceptualised and measured.

Prior to the Shavelson et al. (1976) paper there was no validated definition of the self-concept construct. In addition, researchers tended to develop their own measuring instruments which yielded an increasing number of idiosyncratic measures. Most of these would have failed to meet the stringent psychometric standards applied to contemporary instruments. Recognising this lack of clarity regarding construct definition and measurement of the self-concept, Shavelson et al. highlighted the need for researchers to move from an informal, intuitive definition of self-concept towards what

they term a “mature construct definition” (1976, p. 410). These researchers pointed out how, in the absence of a mature definition, research findings were likely to be spurious and ambiguous, permitting no confidence in terms of generalisability.

Concerned about equivalence across different measurement instruments, and the different facets used in different instruments, Shavelson et al. (1976) cross-referenced five of the most prestigious instruments available at that time, including the Piers-Harris Scale (1964). They found evidence supporting the inclusion of non-academic dimensions including social, emotional and physical domains.

Following the cross-referencing of these instruments, Shavelson et al. (1976) also put forward a composite definition of the self-concept construct that combined seven properties which are listed here:

- 1. Organised** - meaning that children organise their experiences into mental categories or schemas
- 2. Multifaceted** - category systems are reflected in facets that are individual but also common across comparable groups
- 3. Hierarchical** - there is an order to the category system with general self-concept at the apex and facets/sub-facets at lower levels in the hierarchy with increasing situational specificity as one moves to lower levels
- 4. Stability** - general self-concept is viewed as being more stable than domains of self-concept which become increasingly unstable as one moves down the hierarchy
- 5. Development** - there is a shift from undifferentiated self-conceptions in childhood to a more differentiated sense of self as children progress through adolescence and into adulthood
- 6. Evaluative** - people form evaluations about themselves in specific situations and compare themselves with other reference groups or norms

**7. Differentiable** - self-concept is distinct from other constructs to which it is theoretically related.

The Shavelson et al. (1976) definition of the self-concept construct was an important milestone in the history of self-concept research. Having clarified the essential parameters, these researchers affirmed that, when the self-concept is well defined and robustly measured, it is an important rubric for measuring achievement outcome. They did however caution researchers to be aware of cultural differences and how these might influence measurement and interpretation.

In spite of the empirical support offered, this first comprehensive definition was criticised by Marsh (1990) for being largely intuitive and heuristic and, six years later, Shavelson himself with Bolus (1982) criticised the methodology for using only correlational analyses without also examining covariance. Subsequent research by Shavelson and Bolus (1982) set out to test the assumption of a multifaceted, hierarchical structure with increasing stability towards the apex. They replaced the original correlational analyses of self-concept sub-domains with covariance analyses. Using this different methodology, Shavelson and Bolus found that the self-concept is multifaceted but that general self-concept may not be just a summation of all the sub-domains but may be a more distinct entity. This later research also showed that there was a similar level of stability for the facets measured in their study. However, Shavelson and Bolus found less support for increasing stability in self-concept as one moves up the hierarchy towards the apex. Their claims about the stability and entity status of general self-concept were challenged on the

basis of the small sample size (N=99) and the very short six-month time lapse between T1 and T2 data collections. This led to further research by Shavelson and Marsh (1985).

Focusing on the hierarchical definition, and aware of the lack of empirical verification of the hypothesised construct structure proposed in 1976, Marsh and Shavelson (1985) examined a number of studies that had been carried out in the intervening years. They found support for the hierarchical classification and also for increased differentiation with age. These researchers graphically represented their multidimensional conceptualisation in a hierarchical model with total self-concept at the apex and sub-domains lower down the hierarchy. This representation, published in their paper (1985, p. 410), is reproduced in Appendix 1. Due to Marsh and Shavelson being particularly interested in educational evaluation, the appended hierarchy shows an intermediate layer labelled Academic Self-concept and Non-academic Self-concept. The latter category subsumes self-concept facets that frequently appear in measuring instruments including Peers, Emotional States and Physical Appearance and Ability. Models that are not so education focused dispense with the Academic/Non-academic level in the hierarchical classification.

Referring specifically to the multifaceted dimension, and having corroborated the findings of the Shavelson and Bolus study (1982), Marsh and Shavelson (1985) suggested that, by late adolescence, the structure had become more complicated than was originally suggested and that the correlations between the facets were much lower than at the preadolescence stage. They also emphasised the need to prescribe a validated generic

pool of self-concept facets or domains to be used by varying instruments for data collection.

This early research by Shavelson et al. (1976), Shavelson and Bolus (1982) and Marsh and Shavelson (1985) all contributed to the clear, robust definition of the self-concept construct that is used by contemporary researchers for guiding measurement instruments and data collection methodology. It allows domain areas to be specified - academic/social/physical/emotional. It also guides researchers by indicating how responses may be compared with others in a group or against some absolute norm or both.

It is interesting to note that some 20 years later Bracken (1996) put forward a conceptualisation that includes almost identical components:

- (a) theoretical organisation
- (b) multifaceted nature
- (c) hierarchical structure
- (d) stability
- (e) developmental nature
- (f) evaluative underpinnings
- (g) differentiability from other constructs.

A half century ago, Lazarsfeld (1958) highlighted the importance of measuring different components of a concept in order to truly measure that concept. Using this approach, a researcher ends up with a multidimensional profile of a particular concept and misclassifications which result from a single-indicator approach are minimised. Additional theoretical and empirical work by Shavelson et al. (1976), Shavelson and

Bolus (1982), Marsh and Shavelson (1985) and Bracken (1996) led to the self-concept construct becoming more stringently operationalised and measured in subsequent research (Schaffer, 2003). There was a shift away from the unidimensional conceptualisation, typical of the mid-20<sup>th</sup> century psychometrists including Rosenberg, Coopersmith, Piers and Fitts, towards the multidimensional conceptualisation advocated by Shavelson et al. (1976) and Wylie (1989). The requirement that psychometrists adjust their self-concept instruments to take account of multifacets was compounded by increased evidence that older children and adolescents respond differently to questions relating to domain specific self-conceptions. As a consequence, new instruments that included global and sub-domain measures were designed. Global self-concept became defined as the “level of global regard that one has for the self as a person” (e.g. Harter, 1993, p. 88) whereas domain-specific self-concepts were defined as “self-satisfaction in specific areas” as delineated by the measuring instrument (Gentile et al., 2009, p. 34).

Using a variety of statistical methodologies that included construct refinement and structure verification, a number of researchers have validated the claim for multidimensionality made by the Shavelson et al. (1976) theoretical model (Marsh, Barnes & Hocevar, 1985; Marsh & Hocevar, 1985; Marsh, Parker & Barnes, 1985; Marsh & Shavelson, 1985; Harter, 1985, 1984; Fleming & Courtney, 1984; Marsh, Barnes, Cairns & Tidman, 1984; Dusek & Flaherty, 1981). In reviewing this research, Marsh, Byrne and Shavelson (1988) arrived at the conclusion that the multidimensionality aspect was critical to any valid understanding of self-concept, especially from middle childhood (Harter & Pike, 1984). Other empirical research has

supported the multidimensional approach (Elbogen, Carlo, & Spaulding, 2001; Shirk & Renouf, 1992; Marsh, 1990; Eccles, Wigfield, Flanagan, Miller, Reumann et al., 1989; Harter, 1983). Cognisant of the Shavelson and Bolus (1982) findings, contemporary self-concept researchers now favour the “modified multidimensional model” that prescribes a global measure as well as several sub-domain measures (Wilgenbusch & Merrell, 1999, p.101). Whilst the labels attributed to the various sub-domains vary from one instrument to the other, there is much consistency about the sub-domains themselves.

These changes in conceptualisation and assessment of the self-concept construct since the 1970s have resulted in a more fine-grained understanding of the relationship between self-concept and psychological adjustment, particularly during the adolescent years (Schweitzer, Seth-Smith & Callan, 1992).

There has been much less debate about the strategies used for data collection. The choice is about whether to measure this abstract variable by observed behaviour or by self-report. Shavelson et al. (1976) addressed this issue and suggested that there might be self-other agreement for sub-domains near the base of the hierarchy but that the correspondence would decrease as one moved up towards the apex, where self-concept would be less clearly linked with observed behaviour. Some 15 years later, having reviewed studies that correlated self-other reports, Marsh (1990, p.142) concluded that “ratings by others are phenomenologically distinct from self-concept and will only agree with self-report if the external observer knows the subject well, observes a wide range of

behaviours and is making judgements of the same specific characteristics as is the subject on a well-developed instrument”.

In recognition of its inherently subjective and phenomenological nature, the self-concept is generally assessed using standardised self-report instruments in contemporary research. The following sections provide some background information regarding the self-report measure of multidimensional self-concept originally designed by Piers and Harris in 1964 and revised by them in 2002.

### *3.8.1 Piers-Harris Measurement Instruments*

By the late 1960s, Piers and Harris had already designed a multidimensional instrument. This preceded all the research into construct validation and measurement and was praised because it represented a “significant contribution to the field of self-concept instrumentation in that items were developed to reflect these specific areas even before the current focus on multidimensionality” (Keith & Bracken, 1996, p. 103).

#### *Piers-Harris Children’s Self-concept Scale (1964)*

The original Piers-Harris Children’s Self-concept Scale was introduced in 1964. This 80 item scale included a general measure of the self-concept as well as six cluster scales:

- (i) Total Self-concept
- (ii) Behavioural Adjustment
- (iii) Intellectual and School Status
- (iv) Physical Appearance and Attributes
- (v) Freedom from Anxiety
- (vi) Popularity
- (vii) Happiness and Satisfaction.



These cluster scales, known also as sub-domains scales, had been supported by factor analyses (Piers & Herzberg, 2002, p. 39). Alpha coefficients, available from several samples and ranging from .73 to .83, indicated good internal consistency for the sub-domain scales (p. 50). Reliability coefficients for the 80 item scale of .77 over a two-month and a four-month period indicated good stability (p. 51). In-depth analyses of the psychometric properties of this first version are reported by Piers and Herzberg (2002, pp. 49-52). Discussing the psychometric characteristics of the original Piers-Harris Scale (1964), Keith and Bracken say that this scale had better technical qualities than similar instruments and its inclusion of cluster scales for the multifacets was an important advance.

*Piers-Harris 2 Children's Self-concept Scale (2002)*

The original Piers-Harris Scale (1964) was revised in 2002. The number of items was reduced to 60 with only three of the sub-domain scales affected – Behavioural Adjustment, Intellectual and School Status and Physical Appearance and Attributes. Extremely high correlation coefficients of .98, .99 and .98 respectively demonstrate equivalence between the original and revised versions of the instrument (Piers & Herzberg, 2002, p. 41). In terms of internal consistency, alpha coefficients ranging between .72 and .92 at 10 years of age and between .62 and .89 at 17 years indicate that the cluster scales of the Piers-Harris 2 Scale have good internal consistency. Test-retest reliability data were not available from the Piers and Herzberg (2002) manual but Lemley (2005) reported an alpha coefficient of .91 for the Piers-Harris 2 Scale.

### *Scoring of Piers-Harris 2 Scale*

An AutoScore Form is available for researchers to use (Appendix 2). Raw self-concept scores are totalled for Total Self-concept and the six sub-domains. These are then converted to *T*-scores which have a mean of 50 and a standard deviation of 10. The normal range on the Piers-Harris 2 Scale is considered to be between 40*T* and 60*T* for Total Self-concept and 40*T* and 55*T* for the sub-domains. Scores for all seven measures below 29 *T* are considered very low and those in the 30-39*T* range are considered low. For Total Self-concept, scores above 60*T* are considered high and those above 70*T* are in the very high category. For the sub-domains, scores above 56*T* are considered above average. There is no very high category for the sub-domains.

Having clarified some of the issues relating to self-concept conceptualisation and measurement, the next section takes a more developmental focus, examining how individual self-conceptions become more differentiated as girls and boys transition through late childhood and adolescence.

### **3.9 Differentiation of Self-concept**

Expanding on the Shavelson et al. (1976) theoretical model, Marsh, Craven and Debus (1998) found that young children's self-perceptions are consistently high, but that life experience teaches them about their particular strengths and weaknesses, causing a reassessment of these self-perceptions. Marsh et al. (1998) explained the downward trajectory of self-concept in late childhood and early adolescence by saying that there is a shift from the unrealistic appraisal during childhood to a more realistic appraisal of

relative strengths and weaknesses as the young person progresses into and through adolescence. Awareness of inconsistencies within the self-concept, as well as contextual influences on self-perceptions, results in adolescents attempting to identify consistent core characteristics of their self-systems. These characteristics become reflected in differentiated measures of the self-concept by the late teenage years. Levels of differentiation can vary across individual domains and relate to individual levels of psychosocial maturity. Some domain-specific self-concepts may be clear and well developed whilst others can be ambiguous.

Harter (1983, 1985), Marsh (1990) and Shavelson et al. (1976) have all posited that older adolescents have a more differentiated understanding of self-concept that cannot be explained by a global construct alone. By that stage, the self-concept has become more task specific and there is a sense that one performs better in some domains than in others (Elbogen et al. 2001; Harter, 1988; Marsh et al., 1984).

With regard to gender differences in self-concept differentiation, Bolognini, Plancherel, Bettschart and Halfon (1996) found that boys' self-evaluations were based on achievements which could be compared against peers whereas girls' self-evaluations depended on personal criteria and ideals. These same researchers also found that adolescent girls' self-perceptions were less differentiated by domain but that boys more clearly separate scholastic and behavioural domains from social domains. However, expectations that self-concept differentiation in young males would increase for the sub-

domains and that correlations would decrease were not confirmed in the Bolognini et al. (1996) study; the same patterning of factors was found for both girls and boys.

Empirical findings relating to self-concept differentiation appear to be influenced by research methodology. Cross-sectional research examining self-concept differentiation during adolescence has not proved very conclusive (Berzonsky, 1989; Marsh 1990). However, in developmental research, cohort-sequential studies, or designs that allow simultaneous cross-sectional and longitudinal comparisons, provide far superior methodologies to cross-sectional studies. An important study by Byrne and Shavelson (1996), using children aged nine, 13 and 17, found that the self-concepts of the older adolescents were more integrated and differentiated. A slightly later study by Marsh, Craven and Debus (1998), using cross-sectional and longitudinal comparisons, supported this finding. Harter and Monsour (1992) found evidence of this increased differentiation in a small sample (N=64) with adolescents perceiving themselves differently in ways that were role specific - as student, as friend and in relationship with parents and romantic partners. Similarly, van Welzenis (1997) has pointed out the importance of using a differentiated approach to self-concept, since often adolescent boys have varying levels of self-concept in specific domains and different combinations of these domain-specific levels may predict psychosocial outcome.

### **3.10 Self-concept as a Measure of Socioemotional Adjustment**

As a consequence of its important mediating and filtering role, the self-concept is an important barometer of an individual's socioemotional health and well-being. Marsh

(1989, p. 417) emphasised the importance of the self-concept as an “intervening construct that facilitates desirable or undesirable developmental outcomes”. Measurement of the self-concept provides valuable insight into a young person’s level of psychosocial adjustment.

To date not very much research has investigated the importance of self-concept for predicting behaviours and outcomes. Theorists which have emphasised the functional importance of self-concept include Harter (1993, 1986b), Epstein (1991, 1973), Marsh, Parker and Barnes (1985) and Bandura (1982, 1978, 1977). Highlighting the importance of correlations between self-concept domains and achievement/abilities in related areas, Marsh, Parker and Barnes (1985, p.425) stated “the construct validation of self-concept requires that facets be substantially correlated with other variables to which they are theoretically related.....and less correlated with other variables to which they are not theoretically related”. From a pragmatic point of view, this obliges contemporary self-concept researchers to show that self-concept status has functional consequences in the affective and behavioural adjustment of young people. One way of doing this is to include psychosocial correlates of achievement for the various domains at the design stage of the research.

### **3.11 Summary and Implications**

Developmental psychologists draw on a number of different theories in their efforts to conceptualise self, self-esteem and the self-concept. In the absence of evidence to the contrary, self-esteem and global self-concept are understood as synonymous in self-

concept research. Due to the increased differentiation in self-conceptions as children mature, research focusing on adolescent self-concept has moved away from a unidimensional model to the modified multidimensional conceptualisation. This places an onus on self-concept researchers to select an instrument that measures global and domain-specific self-conceptions. Robustly measured, the self-concept provides a good indication of a young person's overall psychological adjustment.

## **CHAPTER 4**

### **AGE EFFECTS AND SELF-CONCEPT**

In spite of the attention focused on researching the self-concept, there are still many gaps in our knowledge and understanding of age-related changes in the development of this important psychological construct (Shapka & Keating, 2005; Crain, 1996). This chapter examines the way in which age differences in self-concept development have been measured in previous self-concept research. It then reports on findings from relevant empirical studies regarding age effects on multidimensional self-concept during late childhood and adolescence.

#### ***4.1 Constitutional Characteristics and Self-concept Research***

Both Crain (1996) and Wylie (1979) have highlighted the importance of theoretical sequence in self-concept research. Their theoretical rationale is that constitutional characteristics such as age and gender have foundational qualities since they were dictated from the beginning. Crain strongly advocates a hierarchical conceptualisation that puts constitutional characteristics at the apex, acquired characteristics, including the “competence, social, affective, academic, family and physical aspects of children’s and adolescents’ environments” (Crain 1996, p. 397) at the base, and interactions between them in the middle.

Consistent with the aforementioned hierarchical structure is the requirement for self-concept researchers to provide sound empirical confirmation of the relationship between

age and developmental outcome before including acquired variables in the theoretical sequence. Crain (1996) was critical of studies that failed to give these constitutional characteristics a primary focus, claiming that the equivalence of the self-concept construct among children and adolescents of different developmental levels must be understood before other less foundational variables are studied. Where repeated investigations into self-concept development find consistent and replicable links between constitutional characteristics and status differences, researchers may then shift their focus to acquired characteristics. Clarification of the combined influences of constitutional and acquired characteristics will enable practitioners to improve the quality of assessment and intervention approaches designed to enhance self-concept development (Crain, 1996).

Self-concept research that seeks to adhere to the approach suggested by Crain (1996) and Wylie (1979) needs to thoroughly examine age effects on self-concept status and development. Marsh (1998, 1989) emphasised how age-related changes in self-concept during adolescence are particularly poorly understood. More recently, Shapka and Keating (2005, p. 84) have emphasised how “identifying age-related...differences in development of self-perceived competence has both theoretical and practical importance”. Empirically examining these age-related changes is particularly important for the adolescent stage, due to the heightened salience of self-perceptions for this age group and the fact that adolescents with a less positive self-concept may be more susceptible to related negative sequelae. In addition, there is evidence that non-significant negative patterns in self-concept development during adolescence may intensify to the extent that they become significant in adulthood (Block & Robins, 1993).



## **4.2 Treatment of Age Differences in Previous Self-concept Research**

### *4.2.1 Conceptual Limitations of Self-concept*

Wylie (1979) criticised the early self-concept studies for their unidimensional conceptualisation of the construct and failure to control for age effects. She points out that using only global scores masks compensatory idiosyncratic differences at the domain-specific levels that may be age specific. Similarly, Young and Mroczek (2003), Cole, Maxwell, Martin, Peeke and Seroczynski (2001), Byrne (1996), Crain (1996) and Marsh (1989) have pointed out how the unidimensional approach fails to identify counterbalancing effects because the distinctions that respondents from differing age groups make about their abilities in certain sub-domains cancel each other out and are not reflected in the overall findings. The modified multidimensional conceptualisation identifies counterbalancing effects and allows for the unmasking of age effects on global and domain-specific self-concepts (Young & Mroczek, 2003; Cole et al., 2001; Byrne, 1996; Crain, 1996).

### *4.2.2 Cross-sectional Versus Longitudinal Investigations*

Most early studies examining age differences in the development of self-concept were cross-sectional. O'Malley and Bachman (1983) and McCarthy and Hoge (1982) criticised these early cross-sectional studies for a number of reasons including the fact that sampling errors at the outset were likely to seriously distort the findings. They pointed out how sampling errors are eliminated in longitudinal studies since they involve repeated testing of the same persons across time. A cross-sectional methodology is inadequate when assessing age-related changes in self-concept change over time. Longitudinal

methodologies are now considered a prerequisite to clarifying developmental status and change in self-concept during childhood and adolescence and have been used in many studies (e.g. Alasker & Olweus, 1992; Simmons & Blyth, 1987; Abramowitz, Petersen & Schulenberg, 1984; Savin-Williams & Demo, 1984; O'Malley & Bachman, 1983; McCarthy & Hoge, 1982). Importantly, longitudinal research needs to allow sufficient time intervals between waves of data collection to allow for self-concept changes to be detected. Shapka and Keating (2005) investigated changes in multidimensional self-concept for two cohorts over a two year period spanning 14 to 18 years of age. Referring to the limited timespan, these researchers have recommended that 'future studies looking at self-concept (or including it as a variable) should ensure that measurement periods are long enough to detect changes' (p. 93). In addition, Shapka and Keating (2005), Crain (1996) and Cole et al. (2001) have all highlighted the fact that few methodologically sound longitudinal studies exist in self-concept research, due to failure to operationalise the self-concept in a multidimensional way and consequent masking effects. Research such as this that examines changes in global and domain-specific self-concepts across a protracted period between late childhood and late adolescence overcomes the aforementioned weaknesses.

#### *4.2.3 Psychometric Instruments*

Early self-concept measuring instruments had poor psychometric properties (Wylie, 1979). Those used in contemporary self-concept research are much better validated. However, it has been proven in self-concept research that different psychometric instruments yield different results. Skaalvik (1986) says that the use of different

instruments is an important explanation for the conflicting findings in self-concept research. It is therefore desirable to be consistent in the measures used where comparisons are to be made in longitudinal analysis and to select a robust instrument. The Piers-Harris Self-concept Scale, used at both time points in the present research, is a highly validated instrument that operationalises self-concept into a global measure and the six sub-domains already outlined on page 71.

#### *4.2.4 Methodological Limitations*

In her meta-analysis of self-concept research, Wylie (1979) identified methodological limitations including lack of analysis of subject attrition, no control for testing effects and possible lack of motivation and carelessness at the first sitting. However, studies by McCarthy and Hoge (1982), Dusek and Flaherty (1981) and Bachman, O'Malley and Johnston (1978) have found that these methodological limitations do not influence the pattern of results in self-concept research.

#### *4.2.5 Overcoming Limitations of Previous Research*

In order to overcome the limitations mentioned in the previous sections, robust studies measuring self-concept status and change during adolescence should adopt a modified multidimensional conceptualisation of the construct, repeatedly use a well validated instrument, adopt a longitudinal methodology, having carefully considered the intervals between the data waves, and use the most up to date statistical methodologies to analyse age effects. Studies comprising all of these elements will add credibility to the robustness of the findings because these are the only studies that can elucidate counterbalancing and masking effects over time. Crain (1996, p. 395) says that contemporary research meeting

the above criteria is in ‘an excellent position to clarify and perhaps lay to rest some of the fundamental issues involved in understanding the nature of children’s beliefs about themselves and their behaviours’.

#### **4.3 Age Effects on Self-concept Status and Change**

Crain (1996) strongly advocated age as a variable that impacts considerably on self-concept development. It is one of the most frequent correlates of self-concept to be researched but the findings are far from clear. In her classic meta-analysis, Wylie (1979) found no convincing evidence of age effects on global self-concept between 6 and 50 years of age. However, her findings are not supported in more recent research and there is still much confusion regarding age effects on global and domain-specific self-conceptions.

When examined from the Piagetian cognitive-developmental perspective (Piaget, 1954), the self-concept changes in line with qualitative changes in thought processes, as a result of temporal development. Based on this premise it might be expected that variation in levels of self-concept can be partly explained by age. McCarthy and Hoge (1982) and Dusek and Flaherty (1981) are researchers who have emphasised the importance of cognitive maturation during adolescence for the formation of more realistic self-perceptions. However, apart from cognitive maturation influences, research also needs to consider ways in which contemporary sociohistorical and sociocultural values and expectations influence age-related norms.

#### *4.3.1 Measuring Age Effects in Self-concept Research*

Alasker and Olweus (1992) strongly suggested that research attempting to clarify age effects on self-concept status and change over time requires the data to be collected at regular intervals to see if normative patterns emerge. If it can be consistently established that the level of self-concept, at a particular developmental stage, predicts the direction and magnitude of subsequent self-concept change, then “measuring self-concept at one time-point might be a useful way of identifying adolescents who are at risk for declining self-concepts” (Young & Mroczek, 2003, p. 597). Intervention strategies could then be designed to reverse self-concept decline and to ensure more positive trajectories. However, Crain (1996) drew attention to the fact that age-related self-concept normative patterns are likely to be socioculturally and sociohistorically conditioned and consequently assumptions about predicting patterns in later cohorts, based on research carried out a decade or more before, would be compromised by time and cohort effects.

Empirical findings to date regarding age effects on self-concept development differ according to whether the conceptualisation is unidimensional or multidimensional. Findings also differ depending on whether the designs are longitudinal or cross-sectional (e.g. Mullis, Mullis & Normandin, 1992; McCarthy & Hoge, 1982; Dusek & Flaherty, 1981). Furthermore, culture differences have been found in (e.g. Shapka & Keating, 2005 - Canadian; Asci, 2002 -Turkish; Mboya, 1999 - African). Further details on these findings are presented in the following sections.

#### *4.3.2 Age Effects and Global Self-concept - findings from previous empirical studies*

Wylie's (1979) meta-analysis found different patterns of global self-concept development depending on whether the studies were cross-sectional or longitudinal. Twenty-one of the 22 cross-sectional studies found no age-related increases whereas six of the seven longitudinal studies found that global self-concept became increasingly positive with age. Cross-sectional studies by Demo and Savin-Williams (1983) and Osborne and LeGette (1982) found various contradictory patterns in global self-concept development during adolescence. More recently, Mullis et al. (1992) examined self-concept development in 15 to 17 year-olds cross-sectionally (N=1178) and longitudinally (N=270). Data analysis revealed significant results for the longitudinal data but not for the cross-sectional data.

In a 1970s study involving national samples of male 13 to 23 year-olds, Bachman and O'Malley (1977) found that global self-concept increased slightly in middle adolescence. McCarthy and Hoge (1982) examined global self-concept development in a large sample (N=1970) across three age cohorts - 13, 15 and 17 year-olds. Longitudinal analysis showed that global self-concept increased with age between 13 and 17 years. Similar patterns were confirmed by Mullis, Mullis and Normandin (1992) who found that global self-conceptions increased between 15 and 17 years. Fleming and Courtney (1984) and Savin-Williams and Demo (1984) have also found increases in global self-concept during the middle and late adolescent years.

In an effort to provide some findings for the entire period from preadolescence to early adulthood, Marsh (1989) summarised data from a large-scale Australian study of self-concept development involving 12,266 Australian students from childhood to early

adulthood. He found convincing evidence of a consistent pattern, with global self-concept typically declining from a young age through early adolescence, levelling out during middle adolescence and then increasing in late adolescence. The implication is that self-concept declines as adolescence approaches but that this decline is reversed in early to middle adolescence, with levels increasing after that time. This trend was confirmed in the findings of other researchers (e.g. Marsh, Smith & Olweus, 1988; Marsh, Parker & Barnes, 1985; O'Malley & Bachman, 1983; Dusek & Flaherty, 1981).

In a more recent Swedish study, Ostgard-Ybrandt and Armelius (2003) examined age effects on self-concept in a sample comprising 227 normally functioning 12 to 18 year-olds. Confirming the findings of an earlier Scandinavian study by Adamson and Lyxell (1996), Ostgard-Ybrandt and Armelius found that the majority of the Swedish adolescents had positive and stable self-concepts and found no age differences in global self-concept development. Similarly, Shapka and Keating (2005) examined within-person changes over a two-year period for two cohorts drawn from Canadian white middle/upper middle class families (N=518) and found global self-concept remained relatively stable between 14 and 18 years of age.

### *Summary*

Earlier studies meta-analysed by Marsh (1989) provided very mixed results. Some showed curvilinear trajectories, others stable ones and others still reported increasing and decreasing trajectories. Bearing in mind time effects, the findings of two more recent studies are likely to be more salient for contemporary self-concept research. Shapka and Keating (2005) and Ostgard-Ybrandt and Armelius (2003) found that global self-concept

remained relatively stable during adolescence. Further investigations into global self-concept development during adolescence are extremely important since the trend in late adolescence has been shown to continue into adulthood. Block and Robins (1993) found that a marginal difference in global self-concept development in middle adolescence had become statistically significant by age 23. Based on this finding, identifying patterns of change in adolescent global self-concepts might be useful in identifying psychosocial sequelae, provided self-concept scores are not limited by ceiling effects (McCarthy & Hoge, 1982).

#### *4.3.3 Age Effects and Self-concept Sub-domains - findings from previous empirical studies*

During adolescence, domain-specific self-conceptions appear to be less stable than global self-perceptions (Shavelson & Bolus, 1982) and rates of change differ according to sub-domains (Cole et al., 2001; Bolognini et al., 1996; Wigfield et al., 1991; Eccles et al., 1989; Marsh, 1989). Precise age of the participants also influences developmental patterns of self-concept sub-domains. Dusek and Flaherty (1981), using a large sample of 11 to 18 year-olds and a sophisticated longitudinal sequential design, found that domain-specific self-concepts develop in a gradual and stable manner with any changes occurring slowly, gradually and only at the individual level. By contrast, over a shorter time period between early and middle adolescence, Osborne and Le Gette (1982) found no age effects on multidimensions of self-concept.



Reflecting on these earlier findings, Crain (1996) pointed out that there was as yet no coherent picture of age effects on the domain-specific self-concepts of children and adolescents. Divergent findings depend on whether age effects on self-concept sub-domains are examined by group or at the intra-individual level or whether cross-sectional or longitudinal analyses have been used. Discrepancies are also due to the precise age ranges being examined, the different sub-domain categorisations used in different psychometric instruments and cultural specificity. Highly relevant to this research, because of age and cultural similarities, are recent findings from the Growing Up in Ireland Study (Greene, Williams, Doyle, Harris, McCrory et al., 2009). This nationwide longitudinal study, involving a large sample of 9-year-old Irish children (N=8,570), examined multidimensional self-conceptions using the Piers-Harris 2 Self-concept Scale. Results for the late childhood stage showed that girls scored the same as or higher than boys on all of the sub-domains apart from Freedom from Anxiety.

The sections that follow summarise some of the important research findings regarding age-related changes in self-perceptions across the six self-concept sub-domains identified by Piers and Herzberg (2002).

### *Behavioural Adjustment*

Simmons, Rosenberg and Rosenberg (1973) found that self-evaluations of Behavioural Adjustment declined between childhood and late adolescence. This may be indicative of the increased tendency for adolescents to conform to the behaviours of the peer group, particularly up until the mid-adolescent phase (Berndt, 1979). The much more recent GUI

study found that 9 year-olds scored within the normal range set by the Piers-Harris Scale developers on the Behavioural Adjustment sub-domain. It also found that the mean score on this particular sub-domain was very similar to mean scores on the other five sub-domains (GUI, 2009, Report 1, p. 80). Although gathered more than a decade later than the data used in this research, the GUI findings are particularly salient, given the very similar age of the participants in both studies.

When researching self-perceptions of Behavioural Adjustment it is useful to examine some concomitant behavioural indicators. In contemporary Ireland, the teenage years are characterised by greater experimentation with both soft and hard drugs. Misuse of alcohol and drunkenness has been a feature of Irish adolescent behaviour since the mid 1990s. Flanagan, Bedford, O'Farrell, Browne and Howell (2003) found that 71% of Irish adolescents (N=1,426) reported having consumed alcohol and more than 50% had been drunk more than 10 times before reaching 17 years of age. Hanafin, Brooks, McGee, Brady, Roche et al. (2007) reported that more than half of all Irish 15 year-olds engaged in binge drinking (defined as more than five drinks in a row) and Ireland has the highest level of binge drinking in Europe (Lalor, de Róiste & Devlin, 2007). Rates of illicit drug use amongst Irish young people have also increased. In 2003, the HSE found that about 15% of teenagers used drugs regularly, an increase from 12% in 1997. Lifetime levels of cannabis use in Ireland are higher than her European neighbours and females are just as likely to use them as males (Lalor et al., 2007). Mayock (2000) found that Irish adolescents use illicit drugs for social and recreational reasons, not because it is risky

behaviour and the choice was based on social and personal experience, with little regard for expert warnings on the health risks involved.

It appears that misuse of alcohol and drugs has become acceptable and normalised for Irish adolescents; they use drugs for recreation and as a lifestyle choice and do not see themselves as victims addicted to a bad habit (Lalor et al., 2007). There has been some suggestion that enhancing self-concept might be a means of protecting against these types of behaviours that are a risk to health. However, NicGahhainn and Mullan (2003) suggest that low self-esteem is too simple an explanation for why young people in contemporary Ireland misuse drugs and alcohol. This societal pattern is very worrying given the possible link between substance misuse and problem behaviours. These findings regarding behavioural indicators including binge drinking, drunkenness and illicit drug use suggest that self-perceptions of Behavioural Adjustment are likely to become more negative for Irish young persons during adolescence, in spite of the postulated normalisation of substance misuse.

#### *Intellectual and School Status*

In the preadolescent stage, declining self-perceptions of academic prowess have been found in studies spanning two decades including those by Shapka and Keating (2005), Young and Mroczek (2003), Cole et al. (2001), Bolognini et al. (1996), Wigfield, Eccles, MacIver, Reumann and Midgeley (1991), Eccles, Wigfield, Flanagan, Miller, Reumann et al. (1989) and Marsh (1989). Similar declines have been found immediately following the transition from elementary to secondary school (Eccles & Midgley, 1991). Shapka

and Keating also found that perceived academic competence decreased with age over a two-year period in middle to late adolescence. These findings suggest that scores on this sub-domain are generally lower in late adolescence than in late childhood.

### *Physical Appearance and Attributes*

Puberty refers to the biological processes involved when young people are maturing sexually. Typical age of onset has begun earlier with each passing generation and recent statistics for Ireland indicate an average age of onset of 12.5 years for females and a slightly later onset for adolescent males (NicGabhainn, 2006). Importantly, pubertal effects are not just biological; there are also social and emotional implications. Synonymous with sexual maturation is the changing body shape and the psychological processes involved in dealing with this unfamiliar morphology can result in negative physical self-perceptions, particularly in early adolescence when body image becomes more salient. Some studies have found that self-perceptions of physical appearance decline in preadolescence (Cole et al., 2001; Bolognini et al., 1996; Wigfield et al., 1991; Marsh, 1989; Eccles et al., 1989) only to recover somewhat in middle adolescence (Cole et al., 2001; Marsh, 1989). In contrast, Asci (2002) found no significant main effect of age on physical appearance self-conceptions in late adolescence in his Turkish sample. Young and Mroczek (2003) found that self-perception ratings on this sub-domain were significantly higher at 20 years of age than at 11 years but their study employed a multi-wave assessment with all participants being evaluated over a one-year period only. Shapka and Keating (2005) found that physical appearance self-perceptions remained relatively stable amongst two cohorts aged between 14 and 18 years. Overall the most

consistent finding is that physical appearance and attractiveness self-ratings remain relatively stable during adolescence.

### *Freedom from Anxiety*

As previously mentioned, a positive self-concept is integral to psychosocial well-being. Self-perceptions are especially influenced by any developmental transition making them particularly vulnerable during adolescence because of the physical, emotional and social changes taking place at this time. Positive self-conceptions moderate vulnerability to these multiple stressors. The majority of Irish young persons report average to good levels of self-concept (Kelleher et al., 2003); this should provide a buffer against stress and anxiety that might develop during adolescence. Examining the self-conceptions of Irish 9-year-olds, researchers found that scores on Freedom from Anxiety were near the mid-range (45-55T) of the normative classification established for the Piers-Harris 2 Scale (GUI, 2009, Report 1, p.80). O'Connor (2008) found that Irish 10 to 12 year-olds placed a lot of emphasis on occupational ambitions and an anticipation of a predictable and embedded future. However, her findings indicated that a shift had occurred by mid-adolescence, with the 14 to 17 year-olds much more focused on the present than the contingent future and a lot more nervous about making commitments. This decrease in confidence about the future may be synonymous with the psychological moratorium (Marcia, 1980) that adolescents are expected to undergo, but may also be an indicator that Irish society, in the post-modern era, is no longer offering a real sense of security for its young people, in the present or in the future. What is difficult to determine is whether the

existential uncertainty reflects a life stage effect or whether it is due to age and cohort effects.

### *Popularity*

Typically, as the young person moves through adolescence, emotional dependence on parents decreases and there is more parity in the parent-adolescent relationship. Coincidentally there is greater affiliation with peers, resulting in the development of positive or negative self-perceptions of how popular one is with the peer group. Bolognini et al. (1996) and Marsh (1989) found a decrease in social acceptance ratings in early adolescence. McCarthy and Hoge (1982) found a decline in social self-concept between 13 and 17 years of age. More recently Cole et al. (2001) followed two cohorts (Ns=936 and 984) aged 9 to 17 years longitudinally and biannually over a 6-year period and found that the steep rise in popularity self-perceptions in pre-adolescence had levelled off by mid-adolescence. Shapka and Keating (2005) found an increase in self-perceptions of social acceptance and popularity within an age range of 14-18 years for middle/upper middle white youths.

Irish sociology research points to the increasing importance allocated to peer relationships as society becomes more individualised and young persons detach themselves, not just from parents, but also from the more traditional social contexts (O'Connor, 2008). O'Connor found many more references to friendships in the 14 to 17 year-olds than the 10 to 12 year-olds. Further evidence of the emphasis placed by Irish adolescents on peer friendships comes from Hanafin et al. (2007) who found that 85% of

the Irish 10 to 17 year-olds admitted to having at least three same-sex peer friendships. Research evidence suggesting an adolescent trend towards more positive self-perceptions on this domain is particularly welcome, given the increased salience of feeling popular and having good relationships with one's peer group during this developmental stage.

### *Happiness and Satisfaction*

The way young people rate their self-perceptions of how happy and satisfied they feel with their lives is likely to be very socioculturally and sociohistorically dependent. Therefore, findings relating to the contemporary Irish context are particularly relevant. Kelleher et al. (2003) found 88% of Irish adolescents were very happy with their lives. This positive finding was confirmed for a slightly later period by Hanafin et al. (2007) who found that 90% of 10-17 year-olds were happy and satisfied with the way their lives were working out. More worrying are the age-specific findings by Hanafin et al. (2007) that girls' self-perceptions of how happy they were peaked at 10-11 years of age and dropped after that time and that 14 to 17 year-old males were the least likely to report feeling happy with their lives. These findings suggest a downward reassessment of happiness and satisfaction self-perceptions as young people move through adolescence.

#### **4.4 Summary and Implications**

Overall, the findings referred to above suggest that adolescent self-conceptions of Behavioural Adjustment, Intellectual and School Status, Freedom from Anxiety and Happiness and Satisfaction are likely to become more negative, those for Popularity are

likely to become more positive and Physical Appearance and Attributes self-ratings may remain relatively stable. The pattern with regard to global self-concept is much less clear.

Given the inconsistency in the findings regarding age effects on global and multidimensional self-concepts between late childhood and adolescence, more research is needed to attempt to verify changing patterns during this period in the lifespan. In addition, time and cohort effects result from multisystem changes in specific ecological environments. Within the Irish context there is a need to build up a research base that documents the experiences of Irish young people in terms of how they view themselves at different time points in their lives. In addition, any self-concept research needs to be updated regularly to take account of age and cohort effects. The fact that both of these criteria are being met in the GUI Study (2006) is very reassuring and testifies to the thorough effort put in by the researchers at the design stage.



## **CHAPTER 5**

### **GENDER EFFECTS AND SELF-CONCEPT**

Changes in the conceptualisation and assessment of self-concept since the 1980s have resulted in a more fine-grained understanding of the relationship between self-concept and psychological adjustment, particularly during the adolescent years (Schweitzer et al., 1992). While a good deal of research attention has focused on the self-concept construct, the influence of gender on self-concept status and change during adolescence is still unclear (Gentile et al. 2009; Shapka & Keating, 2005; Crain, 1996). In her criticism of self-concept research for its failure to consider constitutional characteristics, Crain (1996) posited that the influence of sex/gender on the developing self-concept must be understood before the research focus shifts to other less foundational variables. Shapka and Keating (2005) have supported Crain's emphasis on examining gender-related differences in self-concept status and change during adolescence, a sensitive period during which a reevaluation of identity and the self-system is a key developmental task (Erikson, 1968).

This chapter begins with some key definitions before considering the impact on gender identity of growing up in differing environments. It then examines previous research findings with regard to gender differences in the development of global and domain-specific self-concepts.

### **5.1 Definitions of Sex and Gender**

In developmental research, the term 'sex difference' refers to the biological understanding of being man or woman. 'Gender difference' refers to masculinity and femininity, terms whose meanings are culturally and contextually conditioned. In past self-concept research there has been a common practice of using the terms 'gender' and 'sex' interchangeably. 'Gender' is a socially constructed concept. It assumes that socio-historical and sociocultural expectations influence gender bias and that gender bias influences the socialisation of males and females (Bolognini et al. 1996), with ultimate implications for the development of an individual's self-system. Based on this definition, the term 'gender' is more appropriate in self-concept research.

The following section considers stereotypical influences on young persons' self-conceptions.

### **5.2 Stereotypical Patterns**

The demands of the context in which young people are maturing influence self-appraisals and self-definitions. In this way, culture and historical context are important influences on stereotype, particularly with regard to attitudes and ideas about gender roles. The term 'gender role' is commonly understood as a set of expectations, held by society, about the ways in which males and females are supposed to behave based on their gender. Whilst in-depth research into the effects of context and culture falls more into the realm of Sociology, Bronfenbrenner (1979) emphasised the need for developmental psychologists

to consider shifting sociohistorical and sociocontextual influences and concomitant changing cultural values, norms and expectations. These macrosystem and chronosystem characteristics influence females and males differently, depending on gender-related societal norms and values and thus contribute to stereotype effects.

More than 30 years have elapsed since many of the first empirical studies using self-concept as a variable (e.g. Wylie, 1974; Lerner, Sorell & Brackney, 1981) were carried out. Based on the perspective that individual development is reciprocally related to socio-cultural and historical changes, Lerner, Sorell and Brackney (1981) used a time-lag design to examine whether historical change influenced the self-concept of late adolescents in stereotypical ways. They found minimal differences in the self-appraisals of different cohorts of females and males between 1973 and 1977. Clearly there is a need to repeat this type of research in order to gather more up to date information and also to gather the data over a longer period of time.

### **5.3 Gender and the Irish Context**

In her book 'Irish Children and Teenagers in a Changing World' (2008), O'Connor summarised the findings of her textual analysis of 4,100 texts from 33,828 Irish 10 to 17 year-olds (The National Write Now Project). In the context of discussing the extent to which Irish young people are embedded within, or dis-embedded from, their social and cultural contexts, O'Connor said "Gender in this society remains an important but frequently unacknowledged reality, reflected in different ways of doing boy/girl and in the evaluation of such performances" (p. 1). Irish young people continue to 'do girl' or

'do boy' through various kinds of behaviour that society labels as typically feminine or masculine (p. 12). Gender is thus viewed as a process and the different ways of doing gender are valued in relation to the contemporaneous cultural environment.

O'Connor (2008) has suggested that, in contexts that place greater emphases on gender neutrality, young people would be expected to say that gender does not make any difference to how their lives will evolve. They would also be more likely to consider taking on some of the behaviours or traits more typical of the opposite gender. Lynch and Lodge (2002) found that most 10 to 13 year-olds defined themselves in ways that reflected traditional stereotypes but that a small number did engage in boundary crossing. O'Connor (2008) found indications that boundary crossing may be on the increase but that 'doing boy' was more highly rated than 'doing girl'. This finding probably reflects the legacy left by patriarchy, with higher status being afforded to the male. Ireland has been a traditionally patriarchal society and there is evidence that gender differences in the internalisation of patriarchally derived societal attitudes persist. O'Connor found that stereotypical patterns were evident with 'doing girl' linked with prioritising relatedness and caring but 'doing boy' not linked to those qualities. She also found that the typical 14 to 17 year-old girl was more engaged in self-discovery than the typical boy of the same age.

These findings seem to challenge the view that Irish society is moving towards a more gender neutral position. O'Connor suggested that "gender has become a repressed but crucially important framework in the construction of young people's sense of self" (2008,

p.110). In an important publication 'Young People in Contemporary Ireland', Lalor et al. (2007) have suggested that gender issues are becoming increasingly complex and that the trend is towards greater inequality. These reports suggest that gender differences continue to play out in post-modern Ireland.

#### **5.4 Gender Identity and the Social Environment**

The term 'gender identity' refers to a person's sense of being female or male. There are different psychological approaches to understanding the development of gender identity. Psychoanalytic theory posits that during the phallic stage, which typically happens between 3 and 7 years of age, young children experience fears and fantasies that motivate them to identify with the same-sex parent, which facilitates the formation of gender identity. Informed by a very different perspective, social learning theory emphasises how children learn role patterns from parents and society, due to the reinforcement and modeling that they experience at home and elsewhere. Biological theory, strongly supported by more recent neurobiological research, emphasises how subtle differences in brain development and hormonal differences are partially responsible for gender differences in the development of identity.

With regards to development, gender identity becomes increasingly established during the play years (2-6 years approx.) as children gain a deeper understanding of gender roles. Further gender intensification during adolescence leads to a greater sense of femininity and masculinity. Bolognini et al. (1996) have described how cultural values to do with femininity and masculinity are transmitted through socialisation. Adolescence is

a time when young people explore their identities within different social contexts. Stryker (1987) mentioned the concept of salience and how young people are embedded in social networks which have various degrees of salience. Adolescents face the challenges of moving into different social groups as a result of changing school, taking on new hobbies, the gradual shift from reliance on parents to peers and the first romantic relationships. The salience of these different social groups influences the young person's level of commitment to them; where relationships were important for the adolescent, their commitment to those relationships was high (Stryker, 1987). Young females typically report more numerous, deeper and mutually satisfying friendships than males. This is consistent with the fact that female peer friendships involve more intimacy and self-disclosure whereas male friendships are more based on shared interests and leisure activities (Youniss & Smollar, 1985). The stereotypical patterns found amongst Irish adolescents by O'Connor (2008) also imply that there are gender specific levels of socio-emotional investment in these different social groups, with potentially different outcomes for individual self-concept development.

Contemporary developmental research emphasises the role of the media as a powerful socialising influence on young people growing up in western societies. Media influence reaches an apex during the teenage years and permeates many of the social environments within which adolescents are developing stronger identities (Crain, 1996). It acts as a powerful moderator or mediator of stereotypical gender differences and in this way influences the self-concept development of young females and males.

All of this suggests that the social contexts within which they are maturing may contribute significant variance to the self-concept development of adolescent females and males growing up in Ireland at the beginning of the 21<sup>st</sup> century.

### **5.5 Measuring Gender Effects in Self-concept Research**

Wylie (1979) criticised early self-concept studies for their focus on group scores and failure to examine compensatory idiosyncratic differences that are masked when gender is excluded from the list of variables being examined. Hattie (1992) pointed out that gender has an important influence on self-concept development during late childhood and adolescence and, consequently, it is important to analyse and report gender differences. Crain (1996, p.409) posited that “much of the literature on differences between boys’ and girls’ self-concepts is ambiguous, inconsistent and inadequate” because self-concept scores have been examined at the group level only and, as a result, counterbalancing gender effects were not being detected, either at the global or the domain-specific levels. Implicit in these criticisms is the recommendation that robust studies should use the modified multidimensional conceptualisation of self-concept and include gender as a key predictor variable.

#### *5.5.1 Gender Differences and Global Self-concept - findings from previous empirical studies*

Over about 30 years of self-concept research has failed to provide conclusive evidence regarding definitive patterns resulting from the influence of gender on global self-conceptions during adolescence.

### *No Gender Effects*

Early studies on gender difference and self-concept focused mainly on global scores and reported no gender effects (Marsh et al., 1984; Osborne & Le Gette, 1982; Guyot, Fairchild & Hill, 1981; Wylie, 1979; Maccoby & Jacklin, 1974). Ostgard-Ybrandt and Armelius (2003), Asci (2002), Mboya (1999), Harter (1999), Marsh, Craven and Debus (1998), Hattie (1992) and Mullis et al. (1992) have confirmed the 'no gender effect' finding. Mullis et al. (1992) explained the lack of gender effects in their study by less prejudice and a more equitable approach by society to male/female roles, resulting from more equal gender role boundaries. Their theorising about less prejudice and more equitable gender roles is challenged by Lalor et al. (2007) who, a decade and a half later, found that patterns of inequality continue to play out for female and male adolescents growing up in contemporary Ireland.

### *Curvilinear Effect for Males*

A recent meta-analysis of adolescent self-concept development by Kling (1999) supported a curvilinear trend in its conclusion that a modest gender difference, favouring adolescent males, peaks during mid-adolescence and declines in late-adolescence.

### *Higher for Males*

A number of cross-sectional and longitudinal studies in different countries including America, Australia, Switzerland, Norway and Malaysia have found that adolescent males consistently score higher on global self-concept than adolescent females and that these



gender differences become more pronounced during adolescence. These studies include Young and Mroczek (2003), Cole et al. (2001), Wilgenbusch and Merrell (1999-meta-analysis), Baldwin and Hoffman (1997), Levy (1997), Bolognini et al., (1996), Zimmerman, Copeland, Shope and Dielman (1996), Block and Robins (1993), Wigfield et al. (1991), Cairns, McWhirter and Duffy (1990), Marsh (1989), Chiam (1987), Skaalvik (1986), McCarthy and Hoge (1982), Dusek and Flaherty (1981) and Bachman and O'Malley (1978). Very culturally relevant is the Northern Irish study by Cairns, McWhirter, Duffy and Barry (1990). Based on data collected in 1984/1985, these researchers examined self-concept status in a large sample of 17 year-olds (N= 2490) and found that females scored significantly lower than males on global self-concept.

In other age-specific studies, younger and older adolescent girls reported lower global self-concepts than boys of similar ages (Quatman & Watson, 2001; Marsh et al., 1985; Richman, Clarke & Brown, 1985; O'Malley & Bachman, 1979, 1977; Simmons, Blyth, Van Cleave & Bush, 1979; Simmons, Brown, Bush & Blyth, 1978; Simmons & Rosenberg, 1975). The Richman et al. (1985) study found that white females scored significantly lower than white males, regardless of whether the Rosenberg Scale or the Piers-Harris Scale were used as the measuring instrument. In support of this finding, Chiam (1987) found stable or downward trajectories for the global self-concepts of adolescent females and rising trajectories for adolescent males.

Convincing evidence that the global self-concepts of girls suffer during the adolescent years comes from Block and Robins (1993). Their small sample (N=91) included 44 males and 47 females tested in the first year of high school (M=14.8), the last year of

high school ( $M=17.85$ ) and 5 years after leaving school ( $M=23.23$ ). The study found that the social, emotional and biological changes occurring during adolescence did not change global self-concept levels appreciably when analysing for the combined sample. The gender analysis found that a non-significant difference favouring boys at age 14 became a nearly significant difference at age 18 and a significant difference at 23 years. Over the years, male global self-concept means had increased by  $SD0.20$  and female global self-concept had decreased by a similar margin. The fact that the sample used in the Block and Robins study was small suggests that significant findings might have emerged at the 18-year stage in a larger sample. This increase in disparity in the self-concepts of females and males as they progress from childhood to adolescence was confirmed in a meta-analysis carried out by Twenge and Campbell (2001) and in the GUI Report 4 (2012) which found that the 13-year-old boys were more likely to have above average scores on global self-concept than their female peer group.

#### *Lower for males*

In one of the most recent studies on self-concept, Shapka and Keating (2005) examined the global self-concepts of two cohorts of adolescents ( $N=F251$ ;  $M267$ ) from a white middle/upper middle-class background over a 2-year period and found female global self-concept tended to increase during adolescence whilst male self-concepts tended to decrease. The findings from this Canadian study would have been even more interesting had they used a wider range of SES categories in their sample.

### *Findings from Different Self-concept Measuring Instruments*

There are some indications that different patterns of results have been found using different psychometric instruments. However, comparing results from two of the best validated self-concept measuring instruments, Richman et al. (1985) found results for global self-concept to be commensurate, regardless of whether the Rosenberg Scale or the Piers-Harris Scale was used.

### *Global Self-concept - Findings from Piers Harris Studies*

Using the Piers-Harris Children's Self-concept Scale, Piers (1984) found no gender differences on the global score using the normative sample (N=485). More recently Lewis and Knight (2000) found no gender differences on global self-concept in a sample (N=368) of 10 to 18 year-olds. However, it is important to point out that the participants in the Lewis and Knight (2000) study were intellectually gifted children. Unfortunately the GUI (2009) did not report the Piers-Harris Total Self-concept scores at the 9-year stage but average scores for boys were higher than for girls at 13 years of age (GUI, 2012).

### *Summary*

A small number of early and recent studies have found no gender effects on global self-concept. One meta-analytic study by Kling (1999) found curvilinear effects. A considerable number of cross-cultural studies have found more positive patterns for males than females. These include the comprehensive meta-analysis by Wilgenbusch and Merrell (1999) and the very detailed Block and Robins (1993) study that examined normative, gender specific and individual developmental change in global self-concept.

These more positive trends for males were not found by Shapka and Keating (2005) but were replicated for the 13-year-old males participating in the GUI study (2012).

### *5.5.2 Gender Differences and Domains of Self-concept*

Since domain-specific self-evaluations are related to an individual's level of satisfaction with her/himself across specific areas, one might expect considerable variation across the sub-domains when gender is added as a variable. The early conclusion of the Wylie (1979) meta-analysis of no gender effects on domain-specific self-concepts during adolescence has been largely discredited. More recent findings indicate that gender differences do exist in stereotypical domains (Harter, 1999; Marsh Craven & Debus, 1998; Bolognini et al., 1996; Crain, 1996; Marsh, 1989). Typically boys tend to have higher physical appearance self-perceptions whilst girls have higher self-conceptions in the socially related domains (Skapka & Keating, 2005; Marsh, 1989).

There is currently much interest in gender differences in multidimensional self-concept development but “the empirical research base in this area is still lacking in many respects and not all researchers agree with many of the common assertions” (Wilgenbusch & Merrell, 1999, p.104). Hopefully, this research will augment the information coming in from the GUI study and provide further clarity regarding gender related patterns of multidimensional self-concept development in Irish adolescents.

### *Stereotypical Patterns and Self-concept Sub-domains*

Deaux and colleagues (Deaux, 1984; Deaux & Kite, 1987; Deaux & Lewis, 1984) proposed that adolescent understanding of what it means to be female or male is

influenced by social relationships. Historically these attributions have been less favourable to girls than boys. Using standard empirical meta-analysis methodology, Wilgenbusch and Merrell (1999, p. 106) set out to “consolidate systematically the more recent multidimensional research on self-concept, with a particular focus on identification and analysis of gender differences among children and adolescents”. Twenty-two validated cross-cultural studies were included in their analysis (N=19,379: F9,843; M9,536); the age range was 6 to 18 years and participants were sub-divided into groups. Wilgenbusch and Merrell (1999) set out with the general hypothesis that there are many stereotypical gender differences in self-concept which largely favour boys, particularly after the age of 12. They classified major and minor sub-dimensions based on the different measuring instruments used by previous researchers including the Piers-Harris Self-concept Scale (Piers, 1964). Wilgenbusch and Merrell listed effect-size estimates divided into elementary grade - c. 6-12 years (grades 1-6) and secondary grade - c.13-18 years (grades 7-12) and for the total group, regardless of age or grade. Findings were categorised as non-significant, small-significant and large-significant. Due to different classifications of the self-concept domains, headings are not exactly as in the Piers-Harris 2 Scale but some of the domains are very similar. On the academic/scholastic competence domain, male higher ratings at the elementary grade level were not found among the secondary grade participants. On the physical appearance domain, the marginally higher score for boys at the elementary grade increased to a small-significant difference at the secondary grade. Boys also scored significantly higher on freedom from anxiety. Girls’ self-perceptions in the social/popularity domain were significantly higher than boys. No gender differences were found for happiness/ satisfaction.

### *Most Recent Findings Regarding Gender Differences and Sub-domains*

Recently, Cole et al. (2001) examined gender differences in domains of self-concept at varying stages during adolescence. They found that, by middle adolescence, some gender differences had become neutralised but males continued to have higher physical appearance/athletic competence ratings than females and females had higher behavioural self-conceptions than males. The Cole et al. findings that early adolescent males scored better on physical appearance self-perceptions and girls scored better on behavioural competency were confirmed by Young and Mroczek (2003) who examined rates and patterns of change at the individual level amongst 11 to 20 year-olds (N=253). Higher self-ratings on physical appearance by adolescent males and higher female scores on social competence were also found by Shapka and Keating (2005). In a very recent meta-analysis of studies that used the best validated scales for measuring multidimensional self-concept, Gentile et al. (2009) found similar stereotypical patterns, with girls' body satisfaction and perceptions of attractiveness decreasing during the teenage years, whilst boys' self-perceptions on this sub-domain either increased or remained static. With regards to stereotypical differences on behavioural adjustment, Gentile et al. (2009) also found that females scored higher on this sub-domain than males.

### *Stereotypical Patterns and Piers Harris Studies*

Findings from studies using the Piers-Harris instrument are particularly salient for this research. The instrument developers Piers (1984) and Piers and Harris (1964) found stereotypical differences for the late childhood and early adolescence stages, with girls

scoring higher on Behavioural Adjustment and Popularity and boys scoring higher on Physical Appearance and Attributes and Freedom from Anxiety. The higher score on Freedom from Anxiety for young males was also supported by Osborne and LeGette (1982). Further confirmation comes from the recent GUI finding (2012) indicating that 13-year-old males had higher than average scores on Freedom from Anxiety, Physical Appearance and Attributes and Happiness and Satisfaction, their female peer group scored higher on Behavioural Adjustment and there was no gender disparity for Intellectual and School Status or Popularity.

#### *Gender Effects and Behavioural Adjustment*

Self-evaluations of behavioural adaptation relate to perceptions of how socially acceptable or unacceptable one's behaviour is. Supporting the view that behavioural conduct is particularly salient during the school years, Haynes (1990) found Behavioural Adjustment self-concept to be an important predictor of classroom behaviour and attitudes towards those in authority. With regard to gender differences in self-perceptions of Behavioural Adjustment in late childhood and early adolescence there is some confusion.

Piers (1984) found stereotypical lower scores for boys and explained this finding by the fact that they typically use more externalised behaviours than girls, are therefore more likely to be punished and that this leads to more negative self-appraisals on this domain. However, the Wilgenbusch and Merrell (1999) meta-analysis found no gender effects on self-perceptions of Behavioural Adjustment for either elementary or secondary school

participants. Cole et al. (2001) found evidence of temporal effects, with girls' self-perceptions of Behavioural Adjustment higher than boys' in early adolescence but the gender difference disappearing by middle adolescence. In a meta-analysis of 115 studies involving a greater percentage of youths than adults, Gentile et al. (2009) found that females scored significantly higher on Behavioural Adjustment than males and the female advantage increased as young persons matured.

Irish findings for the late childhood stage have confirmed that female mean scores on Behavioural Adjustment were three points higher for the girls (51) than for the boys (48) (GUI, 2009, Report 1, p.80). Possible links between binge drinking behaviour and gender differences in self-perceptions of Behavioural Adjustment have been suggested. Among Irish teenagers, binge drinking was a behaviour found to be more prevalent amongst boys. However, this differential became eroded between 1995 and 2003 (Hanafin et al., 2007) with binge drinking becoming a lifestyle feature for both female and male adolescents. Further support for this gender erosion comes from the texts analysed by O'Connor (2008); she found no gender differences in experimenting with drugs or binge drinking in her adolescent sample.

### *Gender Effects and Intellectual and School Status*

Some cross-cultural studies have found that, even though females tend to achieve better academic grades, this does not always translate into positive academic self-concepts (e.g. Pomerantz, Altermatt & Saxon, 2002; Stetsenko, Little, Gordeeva, Grasshof & Oettingen, 2000). One explanation is that young females may be more critical of their academic



achievements than young males, an explanation confirmed for academically gifted adolescent females by Luscombe and Riley (2001).

A number of studies have found that, when rated globally on academic/school competence in late childhood and adolescence, males perceive themselves as being more competent than females (Young & Mroczek, 2003; Cole et al., 2001; Bolognini et al., 1996; Wigfield et al., 1991; Eccles et al., 1989; Eccles et al., 1989; Marsh 1989). Academic self-concept was found to recover somewhat in middle adolescence for both genders (Cole et al., 2001, Bolognini et al., 1996; Marsh, 1989). This finding was confirmed for boys only in a Malaysian study by Chiam (1987) who found a strong recovery for males between 16 and 18 years of age. In two meta-analyses, Wilgenbusch and Merrell (1999) found that the male advantage at the elementary school stage became non-significant in the 13 to 18 year-olds and Gentile et al. (2009) found no gender differences in academic self-concept amongst the varying age groups. The finding of no gender effect was recently supported for the 9 and 13 year-olds participating in the GUI study (GUI, 2009, 2012). At the 9-year stage, mean scores were 50 for girls and 49 for boys. At the 13-year stage, 23% of the females and 25% of the males scored above average on the Intellectual and School Status sub-domain.

### *Gender Effects and Physical Appearance and Attributes*

Gender effects on physical self-perceptions appear to be age and developmentally related. After the middle childhood years, when girls and boys tend to feel equally positive about their physical appearance, concerns about physical appearance and attractiveness

strengthen during late childhood and early adolescence, as young people are adjusting to their changing physique and emerging sexuality. There appear to be gender differences in young people's responses to their changing body shape, with males typically responding more favourably than females. The meta-analysis carried out by Gentile et al. (2009) indicated that the largest gender difference in appearance self-concept happens during early adolescence, the peak time for pubertal change.

Janeway-Conger and Galambos (1997) provide an excellent summary of the biological maturation sequences for females and males. Onset of puberty has begun earlier with each passing generation and gender differences exist due to the fact that young females experience these changes earlier than young males. It is likely that pubertal changes lead to increased dissatisfaction with body image (Stattin & Magnusson, 1990; Nolen-Hoeksema, 1987; Simmons & Blyth, 1987; Petersen & Taylor, 1980) which is stronger for girls than boys (Wilgenbusch & Merrell, 1999; Marsh et al., 1998; Bolognini et al., 1996; Wigfield et al., 1991; Marsh, 1989; Simmons & Blyth, 1987; Marsh, Barnes & Hocevar, 1985; Marsh, Parker & Barnes, 1985; Richman et al., 1985).

In the aforementioned Canadian multi-cohort, multi-occasion study involving 518 14-18 year-old high school students, Shapka and Keating (2005) found that boys scored significantly higher on physical appearance and athletic competence, confirming earlier stereotypical findings. There are indications that gender differences also result from the fact that young males are more focused on physical ability whereas females are more focused on physical attractiveness (Lalor et al., 2007). These stereotypical gender

differences are viewed as resulting from sociocultural pressures to conform to a particular body stereotype and that these pressures are stronger for females than for males. Chiam (1987) suggested that female perceptions of physical attractiveness decline upon entering adolescence, partly as a result of pubertal change, but compounded by social standards as well as the unrealistic body shapes portrayed in the media. This suggestion was confirmed by Trew et al. (2006) who found that, compared to males, females appeared less satisfied with their bodies, desiring to be thinner in order to conform to the culturally imposed lean stereotype. More recently, Perry and Pauletti (2011) have also referred to the fact that girls compare their bodies to those of media models more than boys.

Recent studies examining gender differences in physical appearance self-perceptions confirm the stereotypical trend, with adolescent girls having more negative self-perceptions of physical appearance and attractiveness than adolescent boys (Gentile et al., 2009; Young & Mroczek, 2003; Cole et al., 2001; Kolnes, 2000; Hayes, Crocker & Kowalski, 1999; Hagger, Ashford & Stambulova, 1998). Gender difference in physical self-perceptions favouring adolescent boys is probably the most consistent finding in adolescence self-concept research (Crain, 1996). It is also “perhaps the most disturbing trend across grade levels” (Wilgenbusch & Merrell, 1999, p.115). In their very recent meta-analysis, Gentile et al. (2009) also confirmed lower ratings of physical appearance self-concept amongst females than males.

Irish researchers de Róiste and Dineen (2005) examined physical appearance satisfaction amongst 12 to 18 year-olds and found that gender disparity increased across adolescence. At 12, 62% of the girls were happy with how they looked compared with 78% of the young males. At 17, the figures were 55% for females and 85% for males. At 18, 53% of females were found to be happy with how they looked compared with 77% of males. Kelleher et al. (2003) reported that more and more Irish adolescents, especially girls, are trying to reduce their weight; their finding is consistent with the established link between poor body image self-perceptions and eating disorders in female (Kirsh, McVey, Tweed, & Katzman, 2007; Gila Castro, Gómez & Toro, 2005) and male populations (Carper, Negy & Tantleff-Dunn, 2010).

Irish research by Hanafin et al. (2007) found gender differences favouring 12 to 17 year-old adolescent males. The boys were more likely to report feeling happy with the way they looked than their female counterparts. At the 9-year stage GUI data shows no gender difference, with identical mean scores for females and males (GUI, 2009). However, this no gender effect appears to have changed by the 13-year stage when 39% of male adolescents reported above average self-conceptions on this sub-domain compared with 20% of the females. These findings suggest that female physical appearance self-conceptions become more negatively defined in early adolescence. The Hanafin finding would suggest that males may become more vulnerable in late adolescence.

Arguably, gender role-typing is becoming more outdated in contemporary western societies and there may be evidence of a shift in the body stereotype as a result of cultural changes in recent decades. However, while there may be idiographic variation in the

importance of body image, it is unlikely that the pressure to conform to the current cultural stereotype of the very lean female silhouette will be totally disregarded. Also, since young males are the latest targets, with increasing focus on male appearance and attractiveness, there is a need for research to investigate the extent to which these stereotypical gender differences persist. Irish statistics from the Department of Health and Children (2006) commented on the earlier onset of eating disorders, increased male vulnerability to media imposed body ideals and more male incidence of disordered eating patterns, trends which indicate a worrying contamination effect on young males.

#### *Gender Effects and Freedom from Anxiety*

Feeling free from stress and worry is related to emotional well-being and positive self-concept in both females and males and is particularly salient during the teenage years. In adolescence research, gender difference in mental health aetiologies is a relatively consistent finding. With regard to adolescent males, chronic negative emotional states presenting during these years have been found to exist prior to entry into adolescence whereas, for adolescent females, psychological problems tend to manifest for the first time during these years (Lalor et al., 2007). Also, due to the fact that females internalise their problems and males externalise them, chronic stress has been found to have more damaging effects on females.

In self-concept research, links have been found between poor self-concept and anxiety, low mood and depression, all negative states that are more likely to affect adolescent girls than boys (Twenge & Nolen-Hoeksema, 2002; Nolen-Hoeksema, 2001). Rutter (1986) and Petersen (1987) found that only girls showed increasing depressive affect over the

adolescent period. In some of the earlier self-concept studies, Marsh et al. (1989, 1987 & 1985) found that adolescent boys scored higher on emotional stability self-concept. This finding was challenged a decade later by Crain and Bracken (1994) who found no gender difference on the emotional stability domain. Using the Piers-Harris Scale, Osborne and LeGette (1982) and Piers (1984, 1969) found that boys perceived themselves as being less anxious than girls. This latter finding was confirmed in the meta-analysis by Wilgenbusch and Merrell (1999). In very recent research, Gentile et al. (2009) found no gender differences in affect, the category in their meta-analysis that is synonymous with the Freedom from Anxiety sub-domain of the Piers-Harris 2 Scale.

The additional socioemotional challenges experienced during adolescence do not appear to impact enormously on the majority of Irish teenagers. However, 26% show signs of anxiety and there is more prevalence amongst teenage females (Sullivan et al., 2004). Lalor et al. (2007) also found females to be a more vulnerable group than males. Important findings from the GUI (2009, 2012), relating to the late childhood and early adolescence stages, confirm this trend towards higher levels of anxiety and stress amongst females. In her Irish sample, O'Connor (2008) found that the 14 to 17 year-old girls were more reflective and focused on discovering who they really were and were more fearful and anxious about life in general, whilst their male peer group were less introspective and focused mostly on pleasure.

### *Gender Effects and Popularity*

Due to the normative social shift away from parents to peers during adolescence, positive self-perceptions regarding how well a girl or boy is liked by the peer group become particularly salient. These self-perceptions reflect a young person's ability to relate to and communicate with peers and important others, including parents and teachers.

Research by Lynn and Wilson (1993), examining the relationship between language skills and social relationships, found gender differences in linguistic abilities favouring girls and that these gender differences become more pronounced during adolescence. Marsh (1989) found that girls scored higher on social self-concept and Osborne and LeGette (1982) found that girls scored better on Popularity, regardless of their social class characteristics. In their meta-analysis, Wilgenbusch and Merrell (1999) found that 13 to 18 year-old females had higher Popularity ratings than 13 to 18 year-old males.

Support for the view that adolescent girls consistently rate themselves higher than boys on Popularity comes from Shapka and Keating (2005) who examined within-person changes over a two-year period for two cohorts within an age range of 14 to 18 years. They found that adolescent girls scored significantly higher on the social acceptance and close friends sub-domains and that female self-perceptions of Popularity increased as they moved through adolescence.

While there is a great deal of consistency in the findings outlined above, a very recent study by Gentile et al. (2009) found no gender differences in social acceptance self-

concept with males reporting similar Popularity self-perceptions as females. However, the sample in this last study contained adults as well as children and adolescents.

With regards to Irish teenagers, the Health Behaviour of Schoolchildren Study (Currie, NicGabhainn, Godeau, Roberts, Smith et al., 2003) found that almost 90% of Irish young persons had three or more friends, putting them at the top of the scale amongst their European peers. More recently, O'Connor (2008) found that 39% of boys and 72% of girls aged 14 to 17 years had at least two friends and that girls tended to have more extensive networks of friends than boys. Data from GUI (2009) show how Irish 9-year-old females and males rate themselves similarly on Popularity self-perceptions. The same gender neutral pattern exists at 13 years of age (GUI, 2012). The above average scores for females and males on Popularity are the lowest of all the sub-domains for the GUI cohort. This would suggest that, in contemporary Ireland, Popularity self-conceptions may be more vulnerable in early adolescence than in late childhood.

#### *Gender Effects and Happiness and Satisfaction*

Self-ratings of levels of happiness and satisfaction provide a good barometer of an adolescent's general well-being. A nationwide survey in America (American Association of University Women, 1990) found that 60% of elementary schoolgirls and 69% of elementary schoolboys were happy with themselves in contrast to the high school age group where 46% of boys and only 29% of girls were happy with the way they were. On the other hand, Wilgenbusch and Merrill (1999) found no gender differences in levels of happiness/satisfaction for the 13 to 18 year-olds included in their meta-analysis.



However, the way young people rate their self-perceptions of how happy and satisfied they feel with themselves and their lives is likely to be very socioculturally dependent. This makes findings relating to the Irish context particularly relevant. The International Quality of Life Survey (Economist. Com, 2005) placed Ireland first in the ranking of countries included in the survey. Consistent with this finding, Hanafin et al. (2007) found that 90% of Irish 10 to 17 year-olds were happy with their lives but there were some gender differences that increased in disparity with age; 10 to 11 year-old girls were the most likely to respond positively and 14 to 17 year-old boys the least likely. Examining the factors that contribute most to adolescent perceptions of happiness, O'Higgins (2002) found that Irish teenage girls reported a greater effect of relationships on their happiness whereas their male peers focused more on what life would offer in the future. This finding is borne out in the greater decline in Happiness and Satisfaction ratings between nine and 13 years for Irish females than for their male peer group.

### *Summary*

Extrapolating from the research studies discussed above, the most consistent patterns relating to gender differences on the self-concept sub-domains are summarised as follows:

*Behavioural Adjustment:* Females tend to score slightly higher than males but this may be age specific.

*Intellectual and School Status:* There is evidence that, in late childhood, males rate themselves more highly than females on this sub-domain but that, by mid-adolescence, this male advantage may have dissipated.

*Physical Appearance and Attributes:* The consistent finding in adolescence research is that female self-perceptions of physical appearance and attractiveness are lower than they are for males but that young males may be getting more vulnerable to lower self-ratings on this sub-domain.

*Freedom from Anxiety:* The consistent pattern is that adolescent boys perceive themselves as more emotionally stable and less prone to anxiety than girls.

*Popularity:* A consistent finding is that adolescent girls rate themselves as more popular than adolescent boys but that this gender difference may be less evident amongst Irish adolescents.

*Happiness and Satisfaction:* The overall indication from previous research is that there is no definitive gender effect, but there may be some cultural specificity.

## **5.6 Summary and Implications**

The meta-analytic findings of Wilgenbusch and Merrill (1999) and Gentile et al. (2009) and results from Irish research are being used as the overriding references for extrapolating about gender differences in global and domain-specific self-conceptions. The overall finding is that gender differences exist and that adolescent girls are more vulnerable to influences that adversely affect their self-perceptions than boys. However, these differences are small in size. Wilgenbusch and Merrell (1999, p.116) suggest that findings regarding gender effects on multidimensional self-concept “point to the

conclusion that the complexity of self-concept as a construct, combined with the confluence of null and significant findings that are generally small, should preclude sweeping and sometimes alarmist global generalisations on this topic". However, meta-analysts Gentile et al. (2009) challenge the idea that self-concept differences between females and males are small. They highlight the need to examine the effects of gender on sub-domains to make sure that counterbalancing effects are unmasked in contemporary self-concept research.

### *Implications*

One implication is that societal status discrepancy may impact negatively on certain self-concept domains. If gender equality is becoming more the norm, adverse effects in the future may be eliminated. However, Lalor et al. (2007) suggest that the trend is towards greater gender inequality, indicating that gender differences continue to play out in post-modern Ireland.

A second implication is the greater need to focus on societal attitudes (Crain, 1996) and media pressures (Stanley, 2001) and to help adolescents develop strong identities so they can resist the cultural pressures to conform to socially constructed and media imposed stereotypes as well as dealing with the often damaging effects of social networking.

A third implication arises from the findings of Block and Robins (1993), supported by Zimmerman et al. (1996), Alasker and Olweus (1992), Harter (1993) and Hirsch and DuBois (1991) that, since negative patterns continue or even accelerate after adolescence,

it is imperative to quantify change, to identify those adolescents most at risk for declining self-concepts and to put in place interventions to rectify self-concept trajectories that are on a downward spiral.

A fourth implication comes from the warning by Wilgenbusch and Merrill (1999) to proceed cautiously before making any stringent statements about self-concept patterns of development. Perhaps the best approach is for individual countries to implement longitudinal studies that can accumulate self-concept data that is socioculturally and sociohistorically precise and to gather it at short intervals during the late childhood and adolescence stages.

A fifth implication is that, if systematic differences are proven for a constitutional characteristic such as gender, then it is incumbent on the instrument designers to develop separate norms for the various subgroups. If no differences are found, then a single collective normative group is valid.

## **CHAPTER 6**

### **SOCIOECONOMIC STATUS AND SELF-CONCEPT**

In the social sciences, SES is the common acronym for socioeconomic status and it is one of the most widely researched contextual variables in psychological and sociological research. It is an amorphous construct that captures various dimensions of social position including prestige, power and economic well-being (Conger, Conger & Martin, 2010). The underlying assumption is that the social position that families hold in society influences family members across time and that socioeconomic disadvantage has negative consequences for children and adolescents (Conger & Conger, 2002).

This chapter briefly examines ecological influences on development in general before focusing on the socioeconomic and sociocultural changes that are specific to the Irish context. It alludes to different ways of conceptualising and operationalising SES. It then considers empirical findings regarding the effects of SES disadvantage on young persons, depending on their age and gender. The chapter finishes with an examination of the empirical findings regarding the links between SES and global and domain-specific self-concepts.

#### ***6.1 The Ecological Context***

Developmental psychology seeks to understand the changes that occur in behaviour as the individual moves towards maturity and the factors that influence those changes and outcomes. Optimally, a young person's developmental trajectory is towards adaptation

and a positive sense of self. However, ecological risk and protective factors operate to mediate and moderate positive self-perceptions.

Contemporary developmental research emphasises how influences come from different levels of proximity. The conceptual model most often used is the bio-ecological model of Bronfenbrenner and Morris (2006). This later model redressed the weakness of Bronfenbrenner's earlier conceptualisation (1979) which failed to take account of the child's personal characteristics (Greene, 2003). The bio-ecological approach regards developmental processes and outcomes as dependent on successful or unsuccessful accommodation between the developing child and the "multilayered set of nested and interconnecting environmental systems all of which influence the developing child, but with varying degrees of directness" (GUI, 2009, Report 1, p.18). Influences from these different systems are discussed in the next section.

### *6.1.1 Proximal Influences and Self-concept Development*

Tizard (1974) argued for the importance of the immediate environment as the main influence on a child's development. At the most proximal level, children grow and develop within a family microsystem containing physical and psychosocial characteristics that can directly foster or jeopardise healthy socioemotional development (Bronfenbrenner & Morris, 2006; Wachs, 2000). Risk and protective factors afforded by the family environment are associated with different developmental outcomes over time (Compas et al., 1995). Whilst family microsystem influences are particularly salient during the early childhood years, they continue to be important during late childhood and

adolescence, a sensitive period of heightened vulnerability when ongoing reassessment of the self-concept is taking place (Levy, 1997; Rutter, 1989). Orr and Dinur (1995) have also pointed out how family microsystem characteristics, such as the responses to stressors by children and parents, influence adolescent well-being.

Based on the above research one would expect that children growing up in high and middle class urban families are protected from the effects of hardship, whereas children from lower or working class families may experience more stressful environmental conditions that may impact negatively on their self-concept development. McLoyd (1998, p.198) found that “family-level poverty, low SES and residence in less economically advantaged neighbourhoods each independently predicts ...increased levels of socio-emotional problems” when various parent and family characteristics were controlled for. Evans and English (2002) examined the cumulative effects of adverse physical and social stressors on levels of socioemotional adjustment and found lower levels of adjustment in socioeconomically disadvantaged children. Veselska, Geckova, Gajdosova, Orosova, van Dijk et al. (2010) confirmed how personality and social support mediate the effects of low SES on self-esteem. Similar effects were confirmed by Shapero and Steinberg (2013) who found that the relationship between SES disadvantage and psychological well-being in adolescence was mediated by individual differences in childhood emotional reactivity.

Particularly relevant to this research is a study by Owens and Shaw (2003). They examined whether persistent poverty had more detrimental effects than transitory poverty and found that chronic socioeconomic hardship did affect children’s overall self-worth.

Both Duncan and Brooks-Gunn (1997) and McLoyd (1998) have recommended longitudinal studies, spanning different developmental periods, in order for researchers to be in a position to draw some conclusions about the developmental significance of chronic economic deprivation.

### *6.1.2 Distal Influences on Self-concept Development*

However, children do not grow up in a microsystem vacuum. Even in research which focuses on a proximal determinant such as family SES, the forces operating in the more distal contexts cannot be totally ignored, due to indirect effects. Orr and Dinur (1995) identified family access to material and social resources as an important influence on child and adolescent well-being. Sirin (2005) highlighted the need for researchers to evaluate the social and economic context relevant to their research, due to the influences that social policy and economic conditions have on alleviating or perpetuating poverty. For example, a Government's social policy that prioritises financial support for low SES families constitutes an exosystem and macrosystem influence on family income which is a property of the microsystem.

The next section focuses more specifically on the Irish context.

## **6.2. Family SES and the Irish Context**

### *6.2.1 Socioeconomic Change*

Since the late 1980s, Ireland has experienced social and economic changes that have been particularly dramatic and pervasive (Lalor et al., 2007). During the late 1980s and early



1990s, Ireland witnessed a period of economic recession typified by net emigration, high unemployment and a sense of hopelessness. By the mid-1990s, Ireland had moved into the ‘Celtic Tiger’ era, a period of economic expansion with net immigration and full employment.

The ‘Celtic Tiger’ economic boom period did not benefit all young people and their families equally. Ireland currently has more than 1 million under-18 year-olds in its population; this constitutes 25% and is higher than the European average of 20% (Hanafin et al., 2007). These young persons have been growing up in different family contexts. Some experienced favourable conditions, whilst those less fortunate may have been growing up in conditions that were unfavourable or even highly adverse.

Lalor et al. (2007) highlighted the fact that socioeconomic inequality continues to be a prevailing feature of contemporary Irish society, with many families continuing to face significant financial problems. It is important to highlight the fact that adolescents growing up in families that are disadvantaged are also adversely affected by the ecological influences that coexist with socioeconomic disadvantage. These include financial distress, reduced opportunities for employment and fewer resources to help family members pursue educational goals (Conger et al., 2010). With particular reference to the Irish context, O’Connor (2008) has emphasised the fact that very little has been written about the ways in which Irish adolescents reflexively construct their selves within a society that is changing culturally and socially as well as economically.

### *6.2.2 Materialism and Consumerism*

Researching during the last two decades, O'Connor (2008), Lalor et al. (2007) and Greene (1994) have all mentioned how Ireland has become an increasingly globalised, individualised and materialistic society, with a lot of emphasis on material resources, consumerism and pleasure seeking. This shift intensifies social disparity because young people from lower SES families do not have the same access as their better off peers to the financial resources needed to fund consumerist lifestyles. With particular reference to Irish adolescents, Lalor et al. (2007) pointed out how modern living for Irish adolescents has become more complex and contingent on the availability of family resources and that this creates both opportunities and challenges which have to be managed by young people from various socioeconomic groups.

### *6.2.3 Sociocultural Change*

Ireland also witnessed a number of sociocultural changes during these last two decades including

- (i) a dramatic increase in married women's participation in the workforce – rising from 17% in the early 1980s to 43% in 1996 and to 58% in 2005 (O'Connor, 2008, p.5). About half of all Irish married women now work outside the home and this reaches over 60% for those in the prime child-bearing age group (20-44 years)
- (ii) a large increase in the number of infants born outside of marriage
- (iii) heightened educational aspirations, particularly for Irish females
- (iv) a decrease in the number of offspring.

Regarding the last item, family size in Ireland has been shrinking over the last few decades with the 2002 average at 1.6 children (Lalor et al., 2007, p. 62). A positive result of smaller family size has been the increased importance of children and increased emphasis on the need to really listen to their accounts of their experiences in order to devise effective policies for the future. This increased focus on the well-being of Irish children was borne out in the publication of *The Children's Strategy* (Government Publications, 2000) which had three main goals regarding Irish children and adolescents up to the age of 18:

1. To give young people a voice in matters that affect them
2. To have a better understanding of children's lives and to enhance their experience through evaluating, researching and providing information about their needs and rights and to improve services for them
3. To ensure that children receive high quality supports and services promoting all aspects of their development.

This important initiative led to the establishment of the Ombudsman for Children's Office and the instigation of the Growing Up in Ireland Study, a national longitudinal study of children that was commissioned in April 2006 and which has already reported findings for 9 year-olds (Report 1, 2009) and 13 year-olds (Report 4, 2012).

### **6.3 Conceptualising and Operationalising SES in Self-concept Research**

Even though SES is one of the most widely researched contextual variables in developmental psychology, there is much criticism about how SES is used as a variable in developmental research. Sirin (2005) has castigated the many researchers who mention SES in the introduction and discussion sections of their journal articles but fail to

incorporate it in the measurement model. Even when it is included as a variable, researchers have different approaches to conceptualising and operationalising it.

Since the 1980s, there has been a shift towards using a diverse array of SES indicators such as family income, paternal/maternal occupation, paternal/maternal education and family structure when measuring SES. Richman et al. (1985), Mercy and Steelman (1982), Kaplan (1978) and Rosenberg and Pearlin (1978) all found that parental education level was a reliable predictor of self-concept, with Mercy and Steelman finding that maternal education level was more salient than paternal level. Contemporary researchers identify family income, parental education level and occupational status as the three most influential indicators of SES (Bradley & Corwyn, 2002). Particularly relevant to this research is the finding by Twenge and Campbell (2002) that occupation was the strongest predictor of the link between SES and self-concept, with education next and income the weakest.

Examining the effects of interventions aimed at improving outcomes for children and adolescents from low SES families, Levanthal and Brooks-Gunn (2000) found that improvements in family income had beneficial effects on children's socioemotional functioning. Corroborating this finding, Costello, Mustillo, Erkanli, Keeler and Angold (2003) found that enhanced employment opportunities and family income were associated with more adaptive behavioural development of young persons.

### *6.3.1 Unifactor versus Composite Conceptualisation*

There has been a great deal of debate about the appropriateness of adopting a unifactor versus a composite conceptualisation of SES. McLoyd (1998) referred to the lack of any definitive consensus about how the various components of SES interact synergistically with each other, or with other aspects of family, neighbourhood, peer and institutional contexts, to influence developmental process and outcome during childhood and adolescence.

Some researchers have used a unifactor conceptualisation that separates SES indicators in data analysis, in order to capture each one's unique contribution to developmental outcome (e.g. Conger et al., 2010; Mullis et al., 1992). Findings of moderate correlations suggest that each component may measure a substantially different aspect of SES that needs to be considered separately from the others (e.g. Bollen, Glanville & Stecklov, 2001). Mullis et al. (1992) had previously suggested that inconsistent findings resulted from different methods of classifying SES and their recommendation was that researchers should analyse SES indicators separately. Applying a unifactor approach, they found that family income was a better predictor of self-esteem than either maternal/paternal employment or education. A decade later, using a similar approach, Twenge (2002) found that occupation and education levels were more highly correlated with self-esteem than income level.

Contradicting a unifactor conceptualisation, Sirin (2005) has recently spoken out in favour of researchers using multiple components and a composite approach in their

operationalisation of SES. His rationale is based on the fact that SES is a continuous measure in the sense that it is normally distributed in the population and therefore placing constraints on the measure creates artificial categories. His other rationale for advocating the composite approach is based on the premise that parental income reflects the potential for social and economic resources available to the young person, parental education also indicates income since income and education are highly correlated and occupation level reflects the social and economic status of the household as well as the prestige and culture of a given socioeconomic stratum. Sirin (2005) has strongly supported the composite approach and advised researchers against using artificially dichotomised measures of SES.

### *6.3.2 Operationalising SES in Self-concept Research*

In her classic meta-analysis, Wylie (1979, p. 114) put forward three main criticisms of early research on SES and self-concept development:

- (i) lack of systematic analysis
- (ii) failure to resolve the theoretical and empirical problems of defining and measuring social class
- (iii) idiosyncratic measurement instruments which have no psychometric validation.

In her criticism of the lack of systematic analysis, Wylie (1979) referred to the problem of whether objectively indexed SES or the phenomenal sense of SES constituted the best predictor of self-concept trajectories, or whether both should be considered. The issue here is really about how class conscious the participants in a particular study are. Her second criticism was about failure to use an objective and a phenomenological measure

when categorising participants by social class. To overcome this criticism, researchers would need to include an objective and a subjective measure at the data gathering stage. The third criticism is about poorly validated instruments. As with any other psychological variable, researchers should use a well validated, reputable measuring instrument.

Wylie (1979) also highlighted the problem that arises in identifying any single functional relationship between SES and self-concept development since there is so much interaction of different variables. She recommended that researchers consider exploring some of the other factors that vary between the groups, in an attempt to identify the impact of these confounding variables. The inclusion of the constitutional variables age and gender in studies examining SES effects on self-concept developmental outcome, as in the present research, goes some way towards addressing Wylie's recommendation.

The next section examines empirical findings regarding the link between SES and developmental outcome.

## **6.4 SES and Developmental Outcome**

### *6.4.1 SES and Socioemotional Development*

It is important to point out that assessing the link between SES and child and adolescent socioemotional development is complex, since it reflects status at many levels including the family and the neighbourhood. Additionally, SES effects are moderated by child characteristics, family characteristics and external support systems. Levanthal and Brooks-Gunn (2000) and Duncan and Brooks-Gunn (1998), while acknowledging the

wide variability in what children experience within all SES levels, have supported the view that early deprivation has long-term negative consequences for development. They pointed to the fact that many low SES children, living in poorer neighbourhoods, lack access to ample resources and experiences and that this puts them at risk for developmental problems. In addition, children growing up with disadvantage do not just experience economic deprivation; they are also more vulnerable to experience negative role models, substance use and inadequate social services. The fact that children and adolescents are almost completely dependent on the family places them more at risk from economic and social disadvantage and concomitant negative influences on self-concept (Whitbeck et al., 1991).

While not denying the role of genes in socioemotional development, Luthar (1999), McLoyd, Ceballo and Mangelsdorf (1996) and Huston, McLoyd and Garcia Coll (1994) have provided strong evidence that SES disadvantage and related experiences influence children's socioemotional functioning in ways that are not due to genes. Bradley and Corwyn (2002), in their review of the literature focusing on the associations between SES and children's socioemotional well-being, found that SES was associated with a wide array of developmental outcomes in children and that these persisted through adolescence. In particular, they found substantial evidence that low SES children manifest symptoms of socioemotional dysfunction more often than their higher affluent peers. In a similar, but more up to date, review of the literature on SES and developmental outcome, Bridgman (2011) has pointed out how decades of research have



demonstrated the importance of the resources in children's homes for supporting healthy socioemotional development.

In terms of factors that might protect young people from the effects of SES adversity, Masten and Coatsworth (1998), Garmezy (1993, 1985) and Rutter (1990) examined characteristics that might moderate the negative effects. They found that high self-esteem, locus of control and self-efficacy moderated the negative effects of low SES during childhood and adolescence.

A number of models have provided a framework for theorising about the relationship between SES and developmental outcome, three of which are summarised in the next section.

#### *6.4.2 SES and Socioemotional Development – Theoretical Models*

Developmental psychology offers a number of theoretical explanations for the mechanisms by which economic and social disadvantage influence young family members across time:

*Capital model* – This model, first suggested by Coleman (1988), was a new approach to understanding the influences of family SES on child and adolescent socioemotional functioning. Coleman used the word 'capital' as an umbrella term for three different sub-types: *financial capital* – which includes material resources or assets; *human capital* - which includes resources such as education level; and *social capital* - which includes resources that are provided through social connections. The individual or collective

availability/non-availability of these different types of capital may influence socio-emotional development during childhood and adolescence.

*Family stress model* - emphasises how economic hardship primarily influences the socio-emotional development of children through the lives of parents and how family financial difficulties adversely affect intra-familial relationships (Conger & Conger, 2002).

*Investment model* – highlights how poor economic resources decrease the investment parents make in their children’s development and in this way disadvantaged children are denied a wide range of academic and social competencies (Conger et al., 2010).

Each of these models provides a useful heuristic for attempting to explain the processes by which familial, social and economic disadvantage impacts on developing young persons. However, when attempting to explain these processes, researchers need to consider prevailing cohort and time effects.

#### *6.4.3 Cohort and Time Effects*

Elder and Caspi (1988) have highlighted the importance of considering SES influences as causal processes that are time-variant and therefore subject to cohort and time effects. In longitudinal studies there is the possibility that family SES may change for the better or the worse, resulting in young people modifying their self-perceptions. Elder and Caspi also recommended that researchers contextualise their research by providing some

information about the specific sociohistorical circumstances influencing the cohort involved in the study.

In research, birth cohort is synonymous with age and arguably becomes an effective proxy for changes in the larger sociocultural environment. Macrosystem and chronosystem changes impact on birth cohort and may ultimately affect the link between SES and socioemotional functioning. For example, whether a country is experiencing an economic boom or a recession constitutes a chronosystem influence on employment availability and this indirectly influences a family's situation with implications for adolescent socioemotional development. Bartfeld and Meyer (1994) provided evidence to support this view. Another study by Ho, Lempers and Clark-Lempers (1995) found that economic hardship had an adverse effect on adolescent self-esteem and that this effect was primarily mediated through the parent/adolescent relationship. The findings of the Ho et al. study support the theory that economic disadvantage negatively affects parental support, which may convey a negative appraisal of the adolescent, resulting in lower self-conceptions. However, it is important to note that the Ho et al. study examined the development of self-concept in adolescence under conditions of family economic crisis.

Past findings regarding the influence of SES on self-concept have varied depending on the instrument used to measure self-concept. This issue is explored more fully in the next section.

#### *6.4.4 Instrument Effects*

Findings regarding the relationship between SES and self-concept developmental outcome sometimes vary as a consequence of the specific instruments used. Wylie (1979) examined the evidence for SES effects on self-concept in studies using the Piers-Harris Scale. She says “no support is given for the occurrence of an inverse relationship between socioeconomic level and Piers-Harris self-regard scores” (p. 90). In much more recent research, Twenge and Campbell (2002) found that the Rosenberg Self-esteem Scale (1965) and Coopersmith Self-esteem Inventory (1967) showed similar effect sizes of SES whilst the Piers-Harris Scale showed an effect size larger than that found using its well-respected alternatives. This highlights the need for researchers to consider instrument effects when reporting their findings.

The following section examines the theoretical and empirical work regarding the relationship between SES and self-concept development.

### **6.5 SES and Self-concept Status and Change**

Over the past 50 years, a number of studies examined the link between SES and self-concept in normal populations using a variety of instruments. In some of the earliest research on this issue, Trowbridge (1972) and Cicirelli (1977) found that higher self-conceptions were found in low SES groups. Contradicting this finding, Osborne and Le Gette (1982), Demo and Savin-Williams (1983) and Richman et al. (1985) all found a link between high SES and positive self-concept. Some other research carried out by Simmons and Rosenberg (1975), Hirsch and DuBois (1991) and Zimmerman et al. (1996) failed to clarify the relationship between SES and global self-concept.

In an attempt to identify the sources of variation in previous research, and to delineate the theoretical underpinnings of the relationship between SES and self-concept, Twenge and Campbell (2002) meta-analysed 446 studies (N = 312,940), carried out between 1964 and 1996. All the studies had examined the link between SES and self-concept in normal populations, using a variety of global and multidimensional instruments. In selecting the studies to be reviewed, Twenge and Campbell used a broad definition of self-concept, encapsulating the extent to which a person prizes, values, approves and likes her/himself. For SES they used any definition that included educational attainment, occupational status, family income or a composite measure of these. The overall finding was a weak significant correlation, with higher SES linked with more positive self-conceptions and lower SES correlated with more negative ones. Following their meta-analysis, Twenge and Campbell highlighted the need to consider age and gender differences in self-concept research. They suggested three models that might be especially useful when attempting to examine age and gender effects on the relationship between SES and self-concept status and change. These models are summarised in the following section.

#### *6.5.1 SES and Self-concept Development – Theoretical Explanations for Age and Gender Effects*

The three models suggested by Twenge and Campbell (2002) as being useful when considering SES effects on self-concept development are the *salience model*, the *reflected appraisals model* and the *self-protective mechanisms model*. The models are briefly outlined here:

(a) *Salience model* – also known as the social indicator model. Based on this conceptualisation, age effects - measured by a correlation between SES and self-concept - are very low in childhood due to SES being ascribed entirely from parental accomplishments, but the correlation rises slowly during the adolescent years. In terms of gender effects, the salience model implies that changing gender roles have increased the psychological centrality of SES, with a tendency for the effect size to increase in influence over time for females and decrease for males. Whilst this model makes no reference to when these gender effects become salient, implicit in its emphasis on earning power is the assumption that they are unlikely to operate until after the adolescence stage.

(b) *Reflected appraisals model* – emphasises how children and adolescents internalise the fact that they are being regarded in a certain way, without any conscious realisation of the link with family social position. Through reflected appraisals, feelings of inferiority or superiority, concomitant with family social status, are transmitted to children and adolescents. Where others perceive a child or adolescent as coming from a lower SES category, she/he is likely to perceive her/himself in a similar way resulting in a lowered self-concept. The internalisation of feelings of inferiority influences a child's personal value system, reinforces the stereotype and influences self-concept development. In this way, self-concept differences become functionally related to SES (Bradley & Corwyn, 2002). This model predicts that age effects will not be particularly salient for the child or adolescence stage and assumes that a positive correlation between SES and self-concept will only come into play after young adulthood, when low-SES judgements of others become harsher. With regards to gender, the reflected appraisals model suggests that the

functional relationship between low SES and child/adolescent self-perceptions will not depend on whether the young person is female or male.

(c) *Self-protective mechanisms model* – this model factors in the protective strategies that humans use to shield the self from external feedback that would impact on the self-concept negatively. Examples of these strategies include blaming low SES status on factors outside the self or using downward comparisons in order to support a more positive self-concept. Twenge and Campbell (2002) pointed out how older children and adolescents have the cognitive maturity to use these mechanisms. Also, the fact that adolescent SES is ascribed and not earned means that these young people are much more likely to use these self-protective mechanisms. In terms of age effects, this model suggests a null effect for the child and adolescent stages. With regards to gender effects, the self-protective mechanisms model suggests that any effect size will not happen until after adolescence, when complex reasoning about gender prejudice may either nullify or exacerbate earlier effects, depending on whether an older female or male believes that gender prejudice does or does not exist.

The suppositions made by these three models have been challenged in a number of studies that are described in the next section.

#### *6.5.2 SES, Age and Self-concept Status and Change – Empirical Findings*

When examining the relationship between SES and self-concept, age is an important variable to be considered. In childhood and early adolescence, social class as a status in

society is ascribed due to young people being completely dependent on family. However, in middle and late adolescence, SES arguably becomes more salient, due to the broadening of horizons, greater opportunities for social comparisons, particularly with peers, and consequent influences on the maturing self-system. Developmental research tends to support an additive or cumulative deficit model that posits the longer a child is exposed to poverty and its environmental correlates the more adverse the consequences will be (e.g. Bronfenbrenner, 1986). In one of the early studies examining SES effects on self-concept as a function of age, Rosenberg and Pearlin (1978) found that a weak correlation during childhood had increased to a modest correlation in adolescence. They suggested that, as children move into adolescence, family SES assumes a greater degree of psychological centrality, as young persons become more aware of social differences and more responsible for self-presentation. The increased salience of SES with age was also proven by Twenge and Campbell (2002) who found that SES effect size was very small in young children, but increased substantially after that time.

### *6.5.3 SES, Age and Global Self-concept*

The effects of SES on global self-concept have been investigated in a number of studies using different age ranges. Fu, Hinkle and Korlund (1983) and Hare (1977) found SES effects on global self-concept for early adolescents. Other researchers have filled the gap in the literature regarding the late adolescent stage. Bachman and O'Malley (1977) found significant correlations between family SES and overall self-worth in a large mixed race sample (n=1608) aged 16 to 18 years of age. Richman, Clark and Brown (1985), using both the Rosenberg Self-esteem Scale and the Piers-Harris Self-concept Scale, confirmed



these links in a sample (N=195) with a mean age of 16.2 years. Mullis et al. (1992) examined SES and self-concept development in 15 to 18 year-olds using a multiple indicator measure (paternal/maternal occupation, education level and family income) and found evidence of mediational effects of SES over a three-year period. Twenge and Campbell (2002) found that age was a strong influence on the relationship between SES and global self-concept, with the effect size increasing between 11-13 years and 14-18 years. Moreover, this significant finding persisted even when age was used as a continuous variable and was independent of birth cohort. Robins et al. (2002) found a strong relationship between SES and global self-worth and Park (2003) found household income was related to adolescent global self-concept across the 16-19 year phase.

It is also important to consider the fact that SES may influence global self-concept in ways that are gender specific.

#### *6.5.4 SES, Gender and Global Self-concept*

In a study involving two-parent rural families with at least two children (N=451), Whitbeck et al. (1991) examined gender difference in the direct and indirect effects of family economic hardship on the self-concepts of early adolescents with a mean age of 12.6 years. In their analysis of direct effects, they found no gender differences in the weak link between family economic hardship and the self-concepts of young adolescents. However, when the indirect effects of parental warmth and supportiveness were controlled for, the link between SES and early adolescent self-concept was minimal for both genders. In their more recent meta-analysis, Twenge and Campbell (2002) explored

the link between SES and self-concept development but regrettably these researchers failed to carry out any gender analysis of the relationship between SES and self-concept for the younger age groups. In an effort to redress this oversight, a more recent meta-analysis by Gentile et al. (2009) did set out to examine gender differences in multidimensional self-concept. However, attempts made to examine gender differences in the relationship between SES and multidimensional self-concept were thwarted by the fact that not enough studies had included SES as a predictor variable.

The findings from both these meta-analyses suggest that past researchers have neglected gender as an important influence on the relationship between SES and global self-concept.

#### *6.5.5 SES and Self-concept Sub-domains*

In the self-concept research arena, most of the studies examining the relationship between SES and self-concept aetiology used a unidimensional conceptualisation of the self-concept construct, examining the links at the global level only. As a consequence, there is limited information available from past studies regarding the relationships between SES and multidimensional self-concepts. The substitution of behavioural indicators of a particular sub-domain is consistent with reflected-appraisal theory, self-attribution theory and self-perception theory already discussed in sections 3.3.2, 3.3.3 and 3.3.4. It is also supported by empirical evidence indicating that behavioural indicators are reflected in domain-specific self-conceptions (e.g. Moeller, 1999; Shore, Massimo & Ricks, 1965).

### *SES and Behavioural Adjustment Self-concept*

Based on the above rationale, empirical findings regarding behavioural indicators directly relevant to the Behavioural Adjustment sub-domain are admissible in the absence of research regarding SES and self-perceptions of behavioural adaptation.

Studies that have reported higher levels of behavioural problems among lower SES children and adolescents than their middle class peers include Adams et al. (1998) and Butler, Starfield and Stenmark (1984). These links were found regardless of whether parent report, teacher report or self-report data were examined. These studies also found that problem behaviours were likely to become more severe the longer children were living in poverty and that SES was more strongly correlated with externalising problem behaviours than internalising ones.

In a study that allowed adolescents to report on their own behaviour, rather than have parent or teacher reports, Conger et al. (1997) did not find any evidence of a relationship between low SES and adolescent problem behaviour. This finding was challenged by McLoyd (1997) who did find a link between low SES and delinquent and antisocial behaviour in adolescence and by Costello et al. (2003) who found that enhanced employment opportunities and family income were associated with a decrease in behavioural problems. McWhirter (1998) examined the link between substance use, SES and self-concept. Her confirmation of a link between lower SES, lower self-concept and substance use was contradicted in a more recent study by Kirkaldya, Sienfenb, Surallb

and Bischoff (2004). The more recent research found that adolescents with an inferior self-image were in fact less likely to use cannabis and cocaine.

With regard to Irish adolescents growing up in Dublin, Fahey et al. (1999) found that illicit drug use was concentrated amongst young people from disadvantaged socio-economic backgrounds who were growing up in neighbourhoods with poor local facilities. Similarly, Mayock (2000) found a relationship between low SES and behavioural problems such as drug misuse. She also found that most young persons had been introduced to drugs by a close friend or peer, all had a high degree of exposure to drugs in their local environment from an early age and females were as likely to abuse drugs as males. However, in another Irish study carried out some years later, Flanagan et al. (2004) did not find any significant link between social class and illicit drug use.

Very pertinent to this research are recent GUI findings. At the nine-year stage (GUI, Report 1, 2009, p.81) a significant link was found between family SES and scores on Behavioural Adjustment self-conceptions as measured by the Piers-Harris 2 Scale. Children from the Professional/Managerial backgrounds were more represented in the above average scores on this sub-domain. However, these SES effects had dissipated by the 13 year stage (GUI, Report 4, 2012, p.3). It is important to state here that, when comparing scores for these GUI participants against data gathered more than a decade earlier in 1996, time and cohort effects need to be considered.

### *SES and Intellectual and School Status Self-concept*

It seems intuitive that there would be a link between parental educational level and the academic aspirations and achievements of offspring and related self-perceptions. Social class effects on academic self-concept have been found for early adolescents by Fu et al. (1983), Hare (1977) and Kennedy (1975). In a study that examined developmental trends, White (1982) found that SES became less influential on academic self-conceptions as students moved from lower to higher grades. He attributed these changes to the equalising effects of schooling or school drop-out by those from the lower SES groupings which reduced the magnitude of the correlation.

In terms of developmental trends, it is possible that, as young persons progress through adolescence, there is less reinforcement of achievement by parents, teachers and peers, with implications for academic self-conceptions. However, longitudinal studies have found that early patterns are maintained as students get older (Pungello, Kupersmidt, Burchinal, & Patterson, 1996; Duncan, Yeung, Brooks-Gunn & Smith, 1994). Using data from two British birth cohort studies, Schoon and Parsons (2002) found low SES predicted lower academic achievement during childhood and adolescence.

Negative effects of low SES on academic self-conceptions are also implicated in the finding that authoritative parenting, more typical of middle and upper middle-class families, mediates higher academic achievement and that middle-class adolescents are socialised to value academic competence and educational achievement more than their lower SES peers (Steinberg, Lamborn, Dornbusch & Darling, 1992). However,

contradictory findings have emerged from a study by Orr and Dinur (1995) that found no links between SES and academic self-concept in the urban setting.

Moeller's (1994) verification of a link between academic performance and academic self-concept justifies consideration of a recent meta-analysis by Sirin (2005). This meta-analysis originally included 2,477 documents but was reduced to 58 published articles to satisfy the strict inclusion criteria. Sirin examined the links between family SES and child academic achievement. As well as pointing out that family SES also determines residential neighbourhood and the schools that children attend, Sirin highlighted the fact that students from poorer backgrounds are deprived of the social and economic benefits that enhance school experience and foster academic achievement. In discussing his finding that family SES was one of the strongest correlates of academic performance, Sirin mentioned how the strong link between SES and academic achievement reflected both the effect of family resources and social capital. Sirin's meta-analysis also found that composite measures of SES yielded the strongest correlations between it and academic achievement.

#### *SES and Physical Appearance and Attributes Self-concept*

Similar to other stages of the lifespan, adolescence is a stage during which physical exercise and healthy eating habits based on a good nutritious diet are important for weight management and body shape. Adolescents may have better nutritional knowledge than children but this does not necessarily translate into healthier food consumption. A family's weekly shopping basket is largely dependent on income and, in Irish

supermarkets, healthier foods are often more expensive than calorie laden high fat foods and so may not be as prevalent on the dining tables of the lower SES families (Lalor et al., 2007). Less healthy eating patterns may also be due to the large increase in the presence of fast food outlets in urban areas and the vast amounts of money spent advertising low priced high calorie foods. Low SES families that do not prioritise good nutrition are more likely to use these fast food outlets. Trew et al. (2006) found confirmation of the link between low SES and poorer nutrition during adolescence.

Confirmation of a relationship between low physical self-perceptions, nutrition and exercise comes from the results of a longitudinal study (N=2,516) by Paxton et al. (2006) involving a sample that was socioeconomically diverse. These researchers found that low body satisfaction at Time 1 (13 years) was significantly related to dieting, unhealthy weight control behaviours and low levels of physical activity at Time 2 (16 years) for both females and males and this relationship persisted even when SES was controlled for.

#### *SES and Freedom from Anxiety Self-concept*

Psychological well-being is multifaceted and inextricably linked with development within a particular social context. Characteristics of the family are important mediators of child and adolescent emotional development. Some indicators of mental problems during adolescence are anxiety and anxiety related conditions including depression and self-harm behaviour. Consistent with evidence that behavioural indicators are reflected in self-attributions and self-perceptions, it is highly likely that these negative emotional states will be reflected in young persons' self-conceptions of how anxious or emotionally

distressed they are. Studies that have reported higher levels of emotional problems among lower SES children and adolescents than their middle class peers include Adams, Hillman and Caydos (1994) and Butler, Starfield and Stenmark (1984). Schoon and Parsons (2002) and Gore, Aseltine and Colton (1992) found that low SES in a child's family of origin predicted continuing life stress during childhood and adolescence. Katz, Joiner and Kwon (2002) found that being a member of a devalued social group increases one's risk for emotional distress.

Examining cumulative effects of adverse physical and social stressors, Evans and English (2002) found that perceptions of psychological adjustment in 8 to 10 year-olds from a low SES background were significantly lower when compared with middle-income children and these findings generalised from urban poor to rural poor. These earlier findings are corroborated by Wickrama, Conger, Lorenz and Jung (2008) who found low SES increased the risk of mental health problems in late adolescence.

With reference to 'Celtic Tiger' Ireland, Smyth et al. (2007) have pointed out how rampant consumerism has contributed to a shift in our value systems to the extent that a contemporary young person is largely defined by what they own or what they can buy. Adolescents growing up in less advantaged families are likely to suffer psychologically as a result of this polarising of consumerist values. Lalor et al. (2007) have highlighted the link between family poverty and adolescent psychological problems, including chronic anxiety and stress. At the most extreme level, these negative chronic conditions may be a factor in young suicides, a worrying phenomenon in contemporary Irish society.



Statistics show that suicide rates in Ireland tend to increase during adolescence and currently Ireland's youth suicide rate is the 5<sup>th</sup> highest in the European Union at 15.7 per 100,000 (Health Services Executive et al., 2005). On the plus side, the majority of Irish young persons report having a great deal of emotional support from parents and friends, although young males are less likely to openly seek support from parents, friends or mental health professionals (Lalor & Baird, 2006). Recent data for Irish 9-year-olds showed a significant link between higher family SES and more favourable scores on Freedom from Anxiety (GUI, 2009, Report 1, p.81), indicating that children from better off families perceive themselves as having fewer problems with stress and anxiety. However, as already mentioned, time and cohort effects may play out when comparing data where 13 years have elapsed.

#### *SES and Popularity Self-concept*

Research by Osborne and LeGette (1982) found that SES did not influence Popularity self-perceptions. In their study, girls scored better than their male peers on this domain, regardless of social class characteristics. The Health Behaviour of Schoolchildren Study (Currie et al., 2004) found that almost 90% of Irish young persons, regardless of their family background, had three or more friends. This puts them at the top of the scale amongst their European peers. However, there are indications that, in more recent times, SES may be related to self-attributions regarding social relationships, especially during adolescence. Schonfield et al. (2010) found that higher SES predicted better social relationship perceptions during the teenage years.

### *SES and Happiness and Satisfaction Self-concept*

In an Irish study involving almost 1,000 adolescents from the full range of socio-economic backgrounds, Lalor and Baird (2006) found that 68% of the sample described themselves as very happy most of the time, 18% were sometimes happy/sometimes sad and only 6% reported being very sad or unhappy most of the time. These findings challenge the stereotypical view that the majority of teenagers are unhappy with their lives and confirm the results of a slightly earlier study indicating that 88% of 10 to 17 year-olds were very content with how their lives were developing (Kelleher et al., 2003). Significant links between family SES and scores on the Happiness and Satisfaction sub-domain were found for Irish 9-year-olds at the end of the first decade in the 21<sup>st</sup> century (GUI, 2009, Report 1, p.81). These recent Irish statistics indicate that overall Irish children are happy with how their lives are going. However, the results do indicate some disadvantage for children from low SES families, given that higher family SES appears to be linked with higher than average self-perceptions of life satisfaction.

### **6.6 Summary and Implications**

Past research investigating the link between family SES and *Total Self-concept* has produced some inconsistent results, highlighting the need for further research in this area. Patterns are clarified to some extent when age is added as a variable. Since children and adolescents are dependent on parents, family SES is ascribed and, the longer young persons are living within these lower socioeconomic environments, the greater the impact these microsystem influences have on developing self-perceptions. There is research evidence indicating that a small effect of SES in childhood becomes much more salient

by late adolescence. With regard to gender, past researchers have omitted this as a variable and consequently there is as yet no definitive information on whether SES affects adolescent global self-conceptions differently, depending on adolescents being female or male.

For *Behavioural Adjustment* self-concept, there are indications that lower SES may be linked with poorer levels on this sub-domain, especially during adolescence. The effects seem to play out in more externalising behaviours and illicit substance use.

In spite of some evidence that schooling may have some equalising effects, most studies have found that SES disadvantage predicts lower self-perceptions of *Intellectual and School Status* which translate into lower academic achievement, particularly during late childhood and adolescence.

A link between SES disadvantage and lower self-ratings on *Physical Appearance and Attributes* was established in a very large scale study. The same study found that low body satisfaction was a predictor of later unhealthy weight control behaviours and low levels of physical activity for both female and male adolescents.

A consistent finding with regard to *Freedom from Anxiety* self-conceptions is that young persons from lower SES families experience more anxiety and anxiety related conditions than those growing up in families that are of a higher SES.

With regard to the *Popularity* sub-domain, there is very strong evidence that the majority of adolescents growing up in Ireland, regardless of family SES, have at least three good friends to support them and have positive perceptions about how well they are viewed by their peers. There are also indications that, during the teenage years, SES advantage may enhance social relationship self-conceptions.

Irish research investigating *Happiness and Satisfaction* self-perceptions found that almost 90% of 10- to 17-year-olds responded very favourably on this domain but that higher family SES may be linked with higher than average self-perceptions of life satisfaction, particularly in late childhood and early adolescence.

From a methodological perspective, self-concept researchers need to attempt to quantify both main effects and interaction effects of SES on the different domains of self-concept in order to provide more conclusive evidence regarding the influence of SES on multi-dimensional self-conceptions.

**CHAPTER 7**  
**RESEARCH DESIGN AND METHOD**

**7.1 *Research Design***

The research design provides a framework for the collection and analysis of data.

*7.1.1 Epistemological Assumptions and Research Design*

Bergman and Magnusson (1990) have emphasised the importance of selecting the proper measurement model in which implicit and explicit assumptions regarding underlying hypothetical constructs, and their role in child and adolescent functioning, are consistent with the researcher's theoretical position. Bryman (2001) has also pointed out how ontological and epistemological assumptions impact on the way the research questions are formulated and the way in which the research is carried out.

Epistemology is a branch in Philosophy that enquires into the origins of knowledge. There are two main epistemological stances, positivist and post-positivist, and researchers are required to choose between these two stances. The positivist stance assumes an objective reality that can be measured using quantitative methodologies. The alternative postpositivist epistemology adopts an interpretivist stance that assumes a hermeneutical interpretation. This interpretivist approach has gained more status in contemporary developmental research because more qualitative methods of enquiry allow for different types of questions to be asked. Greene (2003, p. 26) suggests that the use of "qualitative methods represents a shift in epistemological commitment from the goal of accurate measurement....to a hermeneutic, interpretive stance towards knowledge and an acceptance that one's interpretation is inevitably shaped by one's standpoint". She points

out how this epistemological shift gives supremacy to the quest for understanding over the search for facts.

However, whilst contemporary developmental research largely supports the post-positivist stance, the current research uses data from the DCDS study that was designed and implemented in the mid 1980s and which was informed by a positivist epistemology. To be consistent, this research also adopts a positivist stance.

### *7.1.2 Choosing the Research Design for the Present Study*

The choice of design is affected by the degree of importance attached to four particular factors (Bryman, 2001):

- (i) whether causal connections between variables are being expressed
- (ii) whether the findings can be generalised to larger groups
- (iii) whether the aim is to understand behaviour and the meaning of it in a specific social context
- (iv) whether the aim is to get an appreciation of social phenomena and their interconnections over time.

For the purposes of this research there is acceptance that causation cannot be asserted nor can the findings be generalised to larger groups. However, factors (iii) and (iv) are relevant since the overall aim is for greater understanding of behaviour and its meaning in an urban Irish social context and for a greater appreciation of social phenomena and interconnections over time. The participants in this study were culturally homogeneous. Cultural homogeneity is a strength that has been highlighted by Cooper and Hedges (1994). They have emphasised how cultural similarity within a sample leads to more robust findings that enable developmental psychologists to identify structures and processes of change over time, in particular sociocultural contexts. This in turn leads to a

deeper understanding of the social world and allows for desirable changes to be implemented.

Dr. Dorit Wieczorek-Deering from the Dublin Institute of Technology (DIT), who had collaborated with TCD in the planning and execution of the data collection for the 7<sup>th</sup> wave when the children were 10-11 years of age, initiated the data collection for the 8<sup>th</sup> wave when the children were 16-17 years of age. In designing the methodology for the 8<sup>th</sup> wave, Dr. Wieczorek-Deering and the present researcher were influenced by pragmatic concerns. The most critical one was compatibility with previous waves of the DCDS study in order to facilitate the extension of the study and the integration of new data. The Piers-Harris Scale (1964) had been used at the 7<sup>th</sup> wave (T1 for this research). Using the revised Piers-Harris 2 Scale at the 8<sup>th</sup> wave (T2 for this research) was vitally important for this research because it allowed for comparisons to be made between multidimensional self-conceptions at 10 and 17 years of age.

The original longitudinal, between-subjects design (Greene, Wieczorek-Deering & Nugent, 1995) was extended in the present investigation to include a within-subject methodology, due to the focus in this research on change in self-concept between two time points – 10 (T1) and 17 (T2) years of age. Other pragmatic concerns were related to cost, duration of the data collection stage and appropriate amount of time spent with individual families while collecting the data.

### *7.1.3 Ethical Issues Impinging on this Research*

Discussions with the ethics committee in DIT revealed no serious problems with regard to the carrying out of the 8<sup>th</sup> wave. The researcher agreed to adhere to DIT's guiding

principles regarding honesty, openness and fairness, confidentiality and respect (www.dit.ie). It was also agreed that, in addition to getting parental consent for the 17 year-olds to participate, the researcher would secure the voluntary agreement of the adolescents themselves as a way of validating them. This research was carried out in accordance with the ethical principles and requirements of the DIT and PSI's guidelines for ethics in research. It was also informed by further stipulations regarding research involving adolescents.

While "listening to children is central to recognising and respecting their worth as human beings" (Roberts, 2000, p.229), ethical issues impinge on research involving young people. In designing the methodology for this 8<sup>th</sup> wave, the ethical guidelines set out by Alderson (1995) for collecting data from adolescents were taken into account:

- (i) consideration was given to such issues as time, inconvenience, embarrassment, intrusion of privacy, sense of failure or coercion and fear of admitting anxiety
- (ii) privacy and confidentiality, particularly with regard to the direct use of primary source material, has been protected
- (iii) adolescents and their mothers or fathers were briefed about the purpose of the research and the process involved in the data collection
- (iv) adolescents and their parents signed consent forms and ongoing consent was required in that there was a clause stating that it was possible to withdraw from the research at any time or to decline to answer particular questions. A statement permitting either researcher concerned for the welfare of a young person to pass on details to a childcare agency or similar was also included.
- (v) adolescents were advised that they would receive a short report of the findings when the study was completed
- (vi) adolescents were also advised that the findings of the research would be widely cited and used to inform policy and practice.



## *Consent*

As in the previous waves, maternal consent was sought for their daughter's/son's participation. In the 8<sup>th</sup> wave, adolescent consent was also sought on the basis that these participants were 17 years of age and on the verge of adulthood. Ongoing consent was required in that mothers and adolescents were free to decline to answer specific questions and could also withdraw at any time from the research. Numerical codes were used to guarantee anonymity and confidentiality.

## **7.2 Participants**

Chapter 1 (p. 9) presented data regarding the original DCDS sample and the pattern of attrition between 1986 and 1996. Over the decade, the number of participant families had declined from 200 at the outset to 96 at a time when the participating children were 10 years of age. Mindful of the need to minimise attrition, a variety of strategies were used by the researcher to contact the remaining 96 families.

### *7.2.1 Efforts to Minimise Attrition*

Attrition in longitudinal research is a common problem due to the fact that the same participants have to be contacted repeatedly (Magnusson & Bergman, 1990) and the sample cannot be augmented when participants are lost for reasons such as sickness/death, emigration, relocation, failure to trace and unwillingness to participate.

Attrition was a serious concern for the researcher due to the seven-year lapse since the last wave and the fact that the 17-year-olds might themselves no longer choose to participate. The goal was to minimise sample attrition by being persistent in the

fieldwork. The fact that annual contact with the families at Christmas had been maintained probably contributed to lower than average levels of attrition. Mindful of the ethical problem of exerting too much pressure on participants whilst attempting to maximise participation, several tactical approaches were used:

December 2002: A letter was included with the family Christmas card informing the 96 remaining families of the impending 8<sup>th</sup> wave and inviting families to participate.

Early March 2003: A second letter was circulated introducing the researchers.

End-March 2003: Those families for whom telephone numbers were available were contacted by telephone and appointments arranged.

May 2003: A third letter was sent to families for whom no telephone number was available asking them to contact the chief researcher.

June 2003: The Department of Social, Community and Family Affairs (DSCFA) was contacted and the office dealing with child allowances kindly agreed to forward correspondence to addresses on their records. This tactic proved very successful with an additional eight families being included. The DSCFA also confirmed the addresses of a number of other families.

Nov/Dec. 2003: House calls were made to those families whose addresses had been confirmed by the DSCFA and six additional families were included in the study as a result of this direct approach.

The loss of 24 families between the 7<sup>th</sup> and 8<sup>th</sup> waves was due to factors including inability to contact due to relocation, lack of response to written and verbal communications and unwillingness to participate. The precise details are as follows:

- eight families could not be traced at all through DSCFA records. These families no longer collected the State's child allowance and the assumption would be that either these families no longer live in Ireland or the 17-year-old is working fulltime and consequently no longer qualifies and there are no younger siblings in the same household claiming the child allowance

- seven families did not respond to the letters forwarded by the DSCFA and since these new addresses could not be given to the researcher by the DSCFA for reasons of confidentiality no further approaches were possible
- six families said positively they no longer wished to participate in the study
- two families failed to respond to repeated house calls
- one family had relocated in recent months with no forwarding address.

### *Effects of attrition*

The question arises about whether those who are omitted from the 8<sup>th</sup> wave sample are or are not representative of the sample as a whole. In this study, six families positively declined to participate with a further seven families de facto declining since it is almost certain that letters sent by the DSCFA reached the correct new addresses and these families chose not to contact the researcher. In effect, 13 families were lost to the study due to their unwillingness to participate and a further 11 families were lost due to researcher inability to establish either telephone or written contact. It is possible that a disproportionate number of families suffering from dysfunction may be included amongst those declining participation. Arguably, these families are of most interest to the study due to the greater possibilities of finding maladjusted adolescents in this group.

However, conversations between researchers and mothers of families declining to participate this time indicated that decisions not to participate were taken simply because the family was busy and involved in lots of others things but that everything was going well. Therefore assumptions that the families that declined to participate this time were experiencing adversity would be flawed – in some cases lack of cooperation seemed to arise from having the confidence to choose not to participate again rather than for other

reasons. Assumptions that more families from lower socioeconomic categories are likely to have been lost to the study are also challenged by Fox and Fogelman (1990). Reporting on attrition experienced in the United Kingdom's NCDS birth cohort study implemented in 1958, these researchers found that non-response indicated only a slight tendency for children from disadvantaged families to be underrepresented.

In the DCDS, the number of child participants fell from 200 in 1986 to 96 at the 7<sup>th</sup> wave in 1996. This represents a cumulative attrition rate of 52% over the first decade of the life of the Study. Explanations for this higher than average rate of attrition have already been outlined in Chapter 1 (p. 10). Figures for attrition rates in longitudinal studies vary greatly. There was a very low attrition rate in the Dunedin study with 94% of the sample at three years of age still involved at age 32 ([www.treasury.govt.nz](http://www.treasury.govt.nz)). Attrition rates between the first and second sweep for the Millenium Study had an average rate of 20% but differed according to precise location (Northern Ireland - 22%, Wales- 17% and England - 15%). However, between inception and the 5<sup>th</sup> sweep, the number of participants in the Millenium Study had attrited to 13,287 ([www.cls.ioe.ac.uk](http://www.cls.ioe.ac.uk)). This represents a loss of about 30% of the original sample over the intervening 11-year period ([www.cls.ioe.ac.uk](http://www.cls.ioe.ac.uk)). Researching levels of attrition in a number of major American surveys, Capaldi and Patterson (1987) found an average attrition rate of 47% for studies of 4 to 10 years duration.

The sample for the present research contained 72 youths, constituting 36% of the original 200 infants recruited into the study 17 years earlier. The drop in participant numbers from 96 at 10 years of age to 72 at 17 years of age represents an attrition rate of 24% over the seven-year interim period between the 7<sup>th</sup> and 8<sup>th</sup> waves. This compares very

favourably with the Capaldi and Patterson (1987) finding of average attrition rates of 47% for studies of a similar duration. According to Bergman and Magnusson (1990), the present sample of 72 meets the criteria for an effective sample.

Due to the fact that the expectant Mums were recruited from the public clinic at the NMH and were not availing of private medical care, which was the norm for middle-class families at that time, they were largely from a lower socioeconomic category. This lower socioeconomic bias remained in the sample used in this research. Of the 72 10-year-old youths that participated in this research, the SES breakdown was 51 youths (72.8%) from a lower socioeconomic category and 19 youths (27.2%) from the middle-class category. The gender breakdown was 40 females (55.6%) and 32 males (44.4%). Detailed demographic characteristics of the sample used in the present investigation are given in Table 3.

**Table 3**  
**Demographic Characteristics of the Present Sample**

		<b>N</b>	<b>Percent</b>		<b>N</b>	<b>Percent</b>
<b>Gender (N=72)</b>	<b>Male</b>	32	44.4	<b>Female</b>	40	55.6
<b>SES (N=70)</b>	<b>Lower/working class</b>			<b>Mid/up. mid. class</b>		
	<b>Group</b>	51	72.8	<b>Group</b>	19	27.2
	<b>Males</b>	22	31.4	<b>Males</b>	9	12.9
	<b>Females</b>	29	41.4	<b>Females</b>	10	14.3

### *Incentive to participate*

The 72 adolescent participants were each given a HMV voucher worth E20 in recognition of their willingness to take part in the 8<sup>th</sup> wave.

### **7.3 Measures**

The literature search revealed that certain sociodemographic factors have a greater or lesser impact on adolescent psychosocial development and the selection of the independent structural variables has been guided by theories pertinent to this issue (e.g. Shapka & Keating, 2005; Sirin, 2005; Crain, 1996). The structural variables used in this study include gender, age and family SES.

#### *7.3.1 Age*

There were two levels of the age variable – 10 and 17 years of age.

#### *7.3.2 SES*

At the inception of the study in 1986, data was collected regarding education and occupation status. The data for education status was based on the highest level achieved by mothers. Data relating to occupation differed depending on whether the participant mother was married or not. In the case of married mothers, husband occupation status was used for coding SES whereas, in the case of single mothers, father occupation status was used. The 1986 data was then amalgamated into a composite SES measure using the Hollingshead criteria described in detail by McGreil (1996, pp. 368/9). The method used by McGreil involved classifying education status into seven ordinal categories ranging from Postgraduate (coded 1) to Incomplete Primary (coded 7) and multiplying the ordinal

category by a factor of four. Occupational status was similarly divided into seven categories ranging from High Professional (coded 1) to Unskilled manual (coded 7) and was multiplied by a factor of seven. Scores in each of the resulting 49 cells indicated the weighted scores for education and occupational status. Based on the assumption that social class was best measured by a cumulative education and occupational status, Hollingshead recategorised cumulative scores of the 49 combinations into five classes:

- Class I = Upper class
- Class II = Upper-middle class
- Class III = Middle-middle class
- Class IV = Working class
- Class V = Lower class

The above categories were used in 1986 to classify SES for the majority of the DCDS participant families. No SES data were available for two of the families still participating at the 8<sup>th</sup> wave. For the 70 remaining families, SES ranged between II and V: 39 families were assessed as category IV, 16 as category III, 12 as category V and 3 as category II. Similar descriptive data were provided by Wieczorek-Deering (1993), with the majority of her sample of 100 families in the modal SES IV category. In terms of education level, the range was from Completed Primary School to Non-degree 3<sup>rd</sup> level. The modal household income per month was £400-500, whilst the range was £50 to £1,500 (Wieczorek-Deering, 1993).

### *7.3.3 Self-concept*

Self-concept is inherently phenomenological and consequently is best measured through self-report. The measure of self-concept used in the 7<sup>th</sup> wave was the Piers-Harris Scale (1984). The recently revised version, known as the Piers-Harris 2 Self-concept Scale (2002) (Appendix 2), was used at the 8<sup>th</sup> wave. This self-report measure uses simple descriptive statements to which the respondent answers 'yes' or 'no'. The revised 60-item version replaced the original 80-item version (Piers, Harris & Herzberg, 1984) that had

been used at T1. The Piers-Harris 2 Scale is appropriate for participants up to 18 years of age and can be answered in about 15 minutes.

The Piers-Harris 2 Scale yields scores across seven domains:

1. Total Self-concept
2. Behavioural Adjustment
3. Intellectual and School Status
4. Physical Appearance and Attributes
5. Freedom from Anxiety
6. Popularity
7. Happiness and Satisfaction

High scores on the Piers-Harris 2 Scale represent more favourable outcomes.

Comparisons between mean scores for the participant groups in this study and age related Piers-Harris norms are presented in Appendices 5 and 6.

#### *Technical Properties of the Piers-Harris 2*

The Piers-Harris 2 Manual (2003) provides a very detailed analysis of the technical properties of the early and revised instruments (Chapter 5, pp. 49-71). The revised scale was renormalised using a large sample of students recruited from elementary, middle, junior high and high schools from a variety of geographical locations throughout the United States and from a variety of social class backgrounds. In terms of construct validity, factor analysis supports the use of the domain scales and there is strong evidence of convergent validity. With regards to internal consistency, age-related alpha coefficients at 10 years were .92 for Total SC and .72 to .84 for the sub-domains and .89 for Total SC and between .62 and .80 for the sub-domains at 17 years. These statistics support the integrity of the Piers-Harris 2 instrument.



#### *7.3.4 Interview Measures*

When participant families were visited during the earlier waves of the DCDS, a considerable amount of information had been gathered and semi-structured interviews were used. Since the researcher involved in the 8<sup>th</sup> wave was involved in a longitudinal study that had been running since 1986, there was an onus on her to gather additional information to update the data gathered in previous waves. Much of this data is extraneous to this particular study but some has already been used by other researchers and this researcher anticipates that she and other developmental researchers will use more of this data in future research.

At T2, additional information was gathered from the 17-year-old adolescents and their mothers using interviews. In designing the interview questions for the 8<sup>th</sup> wave, a semi-structured format had been preferred because

- specific issues to be researched had been identified
- a research assistant was being used
- cross-case comparability was considered important.

Within the context of this research the only use being made of other data collected during these interviews was for the purpose of triangulating the Piers-Harris self-concept data against related psychosocial functional equivalents. Since using the data in this way was not anticipated when compiling the interview questions, there are no functional equivalents for the Physical Appearance and Attractiveness sub-domain and the other links are intuitive rather than empirically verified. This researcher needs to more specifically plan for triangulation in future research.

## **7.4 Procedure**

### *7.4.1 Appointment of Research Assistant*

A research assistant was appointed to visit 25 families so that the data collection phase could be completed within a shorter period of time. There were two reasons for this:

- (a) to keep the age spread to the minimum
- (b) to have as much of the data as possible collected by the end of June 2004. By this time some of the adolescents would have completed their education, might no longer be living at home for various reasons and so attrition might increase.

The research assistant was paid E80 for each family visited.

### *7.4.2 Piloting of the Research*

A small number (N=10) of 16 to 19 year-old female and male adolescents comparable to the research sample (urban area and a variety of SES backgrounds) were recruited for the pilot study. The self-administered Piers-Harris 2 instrument was piloted to ensure that instructions were comprehensive and easy to follow. The adolescent semi-structured interview was piloted to eliminate any ambiguities, to ensure that there was good continuity from one question to another, that questions were optimally placed within the interview and that adolescents were not overly discomfited by any of the questions being asked. Some minor adjustments in the sequencing of questions were made.

### *7.4.3 Procedure for Arranging Visits*

Family identity codes numbering 1-200 had been allocated in 1986 and a randomisation procedure using these codes was adopted for making contact with the 72 families. The goal was to keep the age spread of the adolescents as narrow as possible, while still introducing some element of randomisation. The names of participating families with

identity codes between one and 100 were put into a box, shuffled around and 20 names were drawn. Then identity numbers 101-120 were added and a further 20 names drawn, followed by identity numbers 121-140 with a further 20 names drawn. This procedure continued until all family names were drawn. The drawn sequence was the one used for initial attempts to establish telephone contact but there were inevitable deviations because researchers could not wait for successful telephone contact to be made with a family before proceeding down the list. Once contact was established, and a family agreed to participate, an appointment was made for the researcher to visit at the family's earliest convenience. This meant that family visits did not exactly reflect the order in which the families were first drawn from the box but this to some extent increased randomisation. All visits were completed within a 6-month period.

#### *7.4.4 Procedures for Collecting and Scoring Data*

Throughout the data collection, the researchers were blind to all demographic characteristics of the participants in order to eliminate any preconceptions which might influence contact with the families and to facilitate the researcher's objective approach at all times. All families were visited in their own homes. Precise procedures for the data collection were agreed between the two researchers and both attended the first visit so that any unforeseen issues could be resolved.

Researchers arrived punctually at participant homes and introduced themselves, shaking hands with the mother and the adolescent. Some minutes were spent making general conversation about any recollections the mother or adolescent had of previous stages and answering their questions about the current research. Consent forms were handed out for signing by both mother and adolescent. The adolescent interview was conducted in

private. This was followed by a private interview with the mother during which time the adolescent completed the Piers Harris 2 questionnaire in a separate room.

Before leaving the participant home, each researcher completed a checklist to ensure that all instruments were filled out correctly. This was to avoid having incomplete data or having to repeat the visit. The average visiting time was about 1 hour 45 minutes. The attitude of the families to the study was very positive and both researchers found the visits very enjoyable.

Collected data were placed in an ID numbered folder, with different folder colours used for female and male participants. To protect confidentiality and safety, folders were kept in a locked fireproof filing cabinet.

The Piers-Harris 2 Scale autoscore forms (Appendix 2) were all scored by this researcher. She first checked for any invalid or inconsistent responses. Responses were scored automatically either 1 or 0 via the carbonised sheet. On the autoscore sheet, the researcher ticked all boxes relating to each item, noticing where items counted towards more than one sub-domain. These scores were then summed for Total Self-concept and the six sub-domains. The raw scores were then converted to *T*-scores using the profile sheet. *T*-scores are standard scores with a mean of 50 and a standard deviation of 10.

## **7.5 Reliability, Replication and Validity**

### *7.5.1 Reliability*

In developmental research it is incumbent on researchers to attempt to limit measurement error as far as possible. A number of different strategies were used in this study to maximise reliability.

#### *Interviewer Effects*

Interviewers can affect responses in a variety of ways. Responses may be differentially influenced due to social desirability or it may be that different interviewers, with varying ways of asking the questions and differences in their overall demeanour and body language, affect the responses. In general, the higher the number of interviewers the greater is the response variance. A research assistant was employed in this study to visit 25 of the participant families. However, the interviewers had agreed a dress code and rehearsed the initial approaches made towards the mothers and adolescents so interviewer effects are not thought to be large enough to distort the findings.

#### *Inter-observer/Inter-interviewer Consistency*

Inconsistencies may arise in research where different people score or categorise responses. Even though a research assistant was used in this study, all responses were scored by the main researcher to maximise consistency.

#### *Stability*

An important issue is the level of variation if the tests were readministered. The level of stability is influenced by elapse of time since first testing as well as by recent life experience. In this study the adolescents have given a phenomenological perspective of their self-perceptions at a particular moment in time. However, since self-perceptions become quite stable by late adolescence (Bracken, 1996) it is posited that, at the

minimum, there would be moderate levels of stability in the responses given by the 17-year-olds in this study. Arguably the responses at T1, in late childhood, may be less stable.

### *7.5.2 Replication*

The procedures for the carrying out of the research were well defined and every effort was made to guard against researcher bias, values, expectations and subjectivity. However, as for comparable psychological and social scientific research, precisely similar conditions are impossible to recreate due to confoundings such as the uniqueness of interviewer behaviours and characteristics and the difference in response function from participant to participant. The acceptance of non-absolute replication is a prerequisite for much psychological research.

### *7.5.3 Validity*

#### *Content/construct Validity*

As this research is concerned with hypothetical constructs which relate indirectly to the theoretical construct being measured, the researcher is obliged to consider content validity which is established through analysing the content of the instrument being used. Content validity has been proven for the original version and the revised Piers-Harris 2 Self-concept Scale (Piers & Herzberg, 2002, p.53). Confirmation of construct validity is established by examining how well the instrument reflects theoretical expectations of the indirect measures being used in the study. Construct validity of the original version and the Piers-Harris 2 instrument has been confirmed by Piers and Herzberg (pp.53-62).

### *Internal Validity*

A limitation of cross-sectional research, where data is collected from a number of participants at a single point in time, is its lack of internal validity. Longitudinal studies are much more successful in allowing researchers to quantify variation, to examine patterns of association and relationships between variables and to identify change over time. Whilst acknowledging that relatedness does not equal causation, a cohort-sequential longitudinal study such as this one is likely to be more successful in generating findings that illuminate change, permitting the researcher to make more confident claims about the findings.

### *External Validity*

Some important statements must be made regarding the generalisation of the findings of this study to other populations. The external validity of this research is compromised by the influence of sample size, single cohort representation, panel conditioning effects and random fluctuations.

Sample size: The number of families involved in the DCDS fell from 200 at the outset to 72 after a time lapse of 17 years. It is possible that those families who left the study differ greatly from those still involved. What this means is that the remaining 72 dyads may not even be representative of the original 200 dyads from a predominantly lower SES background or from the wider population from which the original sample was drawn in 1986.

Single cohort: Since a single cohort represents only a certain generation, the results of this study may not be generalisable to adolescents living at other times and in other social or physical environments.

Panel conditioning effects: Continued participation in a longitudinal study affects how respondents behave and as a consequence may also restrict generalisation. It is possible

that the DCDS families have been made to feel ‘special’ as a result of being in the study, something which would not accrue to wider populations.

Random fluctuations: Changing historical and cultural contexts may also compromise the external validity of research. In Ireland, the period from the mid 1980s to the middle years of the first decade in the 21<sup>st</sup> century has been unique in the country’s history. There has been a major shift in prejudices about sexual mores and in religious beliefs, a move from high unemployment to full employment and the country has experienced an unprecedented economic boom commonly referred to as the ‘Celtic Tiger’ (Greene & Moane, 2000). All of these sociodemographic changes compromise the external validity of the findings of this research.

In light of all the aforementioned compromises to the external validity of this research, the researcher’s focus is on making inferences strictly for the sample which participated at T2.

#### *Ecological Validity*

There are strong ecological validity claims for this study. Data was collected in a naturally occurring situation – the family home. Every effort was made by the researchers to put the participants at ease and a conversational style was used throughout the visit. There was little evidence of any apprehension on behalf of participants, presumably because of their prior positive experiences of participating. In research, ecological validity is often jeopardised as a result of administering standardised research instruments. It is the opinion of this researcher that the participants’ familiarity with the completion of questionnaires during previous waves of the DCDS minimised this impact on ecological validity.



#### *7.5.4 Errors of Measurement and Expectancy Effects*

##### *Errors of Measurement*

With regard to errors of measurement, Bergman & Magnusson (1990) point out two important considerations:

- (i) the theory regarding the substantive phenomena under study, the hypothetical constructs evolving from the theory and their relation to the observables
- (ii) how the errors of measurement operate in influencing the observables and their relations to the latent variables/hypothetical constructs.

The general design of the study in the choice of relevant indicators and careful measurement procedures and the choice of statistical models for handling and estimating errors should take into account problems arising from errors of measurement. However, error is conceptualised according to specific studies and errors of measurement become more of a problem for longitudinal studies, due to the added time dimension (Bergman & Magnusson, 1990). This may happen if the same instrument is used repeatedly, since one gets a test/retest effect especially where the time interval is short. However, this is unlikely to be a problem for this study due to the seven-year time lapse and the distinct changes in cognitive and affective maturity.

##### *Influence of Error on Correlation between Predictor and Outcome*

In this study, SES was categorised at birth but no concurrent measure of SES was gathered at 10 or 17 years of age. The fact that SES had not been reclassified at T1 by previous DCDS researchers nor at T2 by this researcher is an important oversight that is likely to give rise to error.

##### *Expectancy Effects*

Expectancy effects can influence research in two ways:

1. Results may be biased according to the prevailing beliefs or theories. Bergman and Magnusson (1990) suggest that, to offset this in longitudinal research, a written plan for the coding and operationalisation of the variables should be made before any computations are performed.
2. Researchers may also have a tendency to want to confirm hypotheses and this may influence ratings.

Since much of the coding used in this research had been decided at the inception of the study in 1986, expectancy effects are unlikely to impact on the results. In addition, the researcher tried to avoid having any prior expectations and to be objective about findings.

## ***7.6 Analysis of Data***

### *7.6.1 Inconsistent Responses*

All completed Piers-Harris 2 Scales were checked for signs that participants had responded inconsistently. Since none contained an unacceptable number of inconsistent responses, all 72 completed instruments were included in the calculation of results.

### *7.6.2 Predictor and Criterion Variables*

Within the context of this particular study, age, gender and SES were the predictor variables and Total Self-concept and the six sub-domains were the criterion variables.

### *7.6.3 Triangulation of Data using Correlates of Self-concept Domains*

In developmental research, there are a number of weaknesses to using a quantitative methodology including:

- the possibility that the participants may not fully understand the instructions due to their level of reading ability
- concerns about participant motivation

- concerns about respondents' commitment to the truth rather than offering socially desirable answers
- problems of misrepresentation - that participant behaviours do not coincide with the answers given which compromises the findings
- the very static perspective afforded by the quantitative approach.

Triangulation is a technique that researchers use to strengthen claims regarding robustness of data and findings. *Methodological triangulation* assumes that where two or more different measurement processes are used in a between-method approach, confidence in the ensuing findings is enhanced and uncertainty of interpretation is reduced (Bryman, 2001). *Data triangulation* involves correlating data gathered from different sources in order to strengthen claims for the robustness of the data and findings and is consistent with a multisource methodology (Bryman, 2001). The incorporation of some form of methodological and data triangulation emerged as an important consideration for this research. In an effort to include some form of methodological triangulation, the researcher correlated the Piers-Harris 2 data with interview responses to items that were deemed to be functional equivalents of the Piers-Harris sub-domains. The rationale for performing these correlations was to improve claims regarding the robustness of the self-concept data. This procedure was used only for T2 data since equivalent information was not available at T1. The same rationale regarding robustness of data applies to the data triangulation exercise carried out between T1 and T2 self-concept scores and Piers Harris age-related standardised norms.

#### *Correlation of T2 Interview Responses with Self-concept Scores*

The interview questions used in the triangulation analyses are listed according to domain in Appendix 3. Correlations between interview responses and self-concept sub-domain

scores were examined at group level only. A descriptive table is presented in Appendix 4. The main findings are outlined below by sub-domain.

#### *Behavioural Adjustment*

There was a significant negative correlation between Piers-Harris group scores on Behavioural Adjustment and adolescent responses indicating less trouble at school ( $r = -0.281$ ,  $n = 72$ ,  $p < .05$ , 2-tailed) and less frequent breaking of parental rules ( $r = -0.467$ ,  $n = 72$ ,  $p < .01$ , 2-tailed). The correlation between Behavioural Adjustment and illicit drug use was not significant. Mother reports of the extent to which adolescents ignored parental guidelines were significantly correlated with adolescent scores on Behavioural Adjustment ( $r = 0.340$ ,  $n=72$ ,  $p < .01$ , 2-tailed). A significant correlation was also found between maternal experience of parenting and adolescent self-concept scores on this sub-domain ( $r = 0.305$ ,  $n=72$ ,  $p < .01$ , 2-tailed).

#### *Intellectual and School Status*

There was no significant correlation between group scores on Intellectual and School Status and either participant ratings of how pleased they were with their Junior Certificate results or maternal reports of encouraging children to do well at school.

#### *Physical Appearance and Attributes*

No interview responses were conceptually related to self-perceptions of Physical Appearance and Attributes. In hindsight this was an important omission.

### *Freedom from Anxiety*

A significant negative correlation was found between adolescent group scores on Freedom from Anxiety and Concerns about School ( $r = -.278$ ,  $n = 72$ ,  $p < .05$ , 2-tailed) and Relationship with Mother ( $r = -0.295$ ,  $n = 72$ ,  $p < .05$ , 2-tailed). Higher scores on Freedom from Anxiety were related to fewer concerns about school and better relationships with mothers. Regarding mother's interview responses, answers about level of conflict with adolescent and quality of adolescent/mother relationship were not significantly correlated with adolescent self-perceptions of Freedom from Anxiety.

### *Popularity*

A significant negative correlation was found between self-ratings of Popularity and having Lots of Friends ( $r = -0.413$ ,  $n = 72$ ,  $p < .01$ , 2-tailed) with higher scores on Popularity indicating a larger circle of friends. The Number of Close Friends was not significantly correlated with scores on the Popularity sub-domain.

### *Happiness and Satisfaction*

Self-ratings of Happiness and Satisfaction were not significantly correlated with Enjoyment of School or perceptions that Ireland is a Good Place to Live.

### *Correlating Self-concept Scores at T1 and T2 with Piers Harris Norms*

In order to test the robustness of the self-concept data at T1 and T2, mean scores for each of the self-concept sub-domain variables were compared against Piers-Harris norms for 10 and 17 year-olds. Piers-Harris norms, expressed as *T*-scores, are standard scores with a mean of 50 and a standard deviation of 10. This use of *T*-scores allows averages to be compared with a normalised sample.

### *Correlations at T1*

T1 scores were found to be within normative ranges, the maximum difference in average *T*-scores being three. Average scores at 10 years of age were higher for the Piers-Harris standardisation sample on all sub-domains except Freedom from Anxiety. The Piers-Harris use of normalised *T*-scores also allowed the data gathered for the 10-year-olds in this study to be compared against published data for a reference group of 8,570 9 year-olds participating in the GUI Study (2009, Report 1, p.80). Comparisons between the scores revealed a number of important gender patterns. The GUI study found that all scores were within the Piers-Harris mid-range of 40-55*T*, a finding that was replicated for the 10-year-olds in this study. Across both data sets, a similar pattern existed in that mean scores for males were either lower than or equal to mean scores for females on all of the sub-domains with the exception of Freedom from Anxiety. The GUI data shows that the 9-year-old boys had lower self-ratings of Behavioural Adjustment, Intellectual and School Status and Happiness and Satisfaction, similar ratings for Physical Appearance and Attributes and Popularity and higher ratings than their female peers for Freedom from Anxiety. The T1 data gathered a decade earlier shows similar gender patterns favouring girls, but less signs of differentiation in that female self-ratings were higher than males on all sub-domains and there were no gender differences on Freedom from Anxiety. Allowing for cohort effects, these comparisons indicate that the data gathered and scored at T1 are likely to be robust.

### *Correlations at T2*

In addition to the evidence already provided for the 17-year-olds of significant correlations between sub-domain scores and conceptually related interview responses, a further test of the robustness of the data at T2 was carried out by comparing mean scores

for each of the self-concept sub-domain variables against the Piers-Harris 17-year-old standardisation sample. All self-concept scores at T2 fall within the Piers-Harris normal range for this age group, with the maximum difference in average *T*-scores being five. Apart from Intellectual and School Status, all average scores were higher for the 17 year-olds in this study than in the Piers-Harris standardisation sample.

#### *7.6.4 Statistical Analysis*

Data were analysed using SPSS 17, bearing in mind Bergman's criteria for choosing statistical methods (Bergman, 1993):

- (i) that the information provided by the statistical method used answers the questions being asked
- (ii) that the method provides trustworthy results.

The various statistical tests used in analysing the data at T1 and T2 included:

Independent samples t-test: this test is used when comparing means from 2 independent groups of individuals (Brace, Kemp & Snelgar, 2003). T-tests were used in this research to assess gender differences in multidimensional self-concept at T1 and T2.

Paired samples t-test: this test is used in a matched-subjects design when researchers seek to compare mean scores of two sets of data from the same individuals (Brace et al., 2003). The test was used in this research to compare global and domain-specific self-concept scores at T1 against scores at T2 for the same participant groups.

Repeated Measures ANOVA: this test is used to assess the relative importance of included variables by examining interaction effects (Kerlinger, 1992). This statistical approach was used in this research to examine three-way interactions between gender, time and self-concept domains.

Two-factor ANOVA: this test is used to examine the individual and combined effects of two predictor variables (Brace et al., 2003). It was used in this research to assess the relationship between the individual and combined predictor variables of gender and SES on multidimensional self-concept at T1 and T2.

### **7.7 Aims and Research Questions of the Present Study**

When examining hypothetical constructs, it is critically important that developmental researchers clearly define the operationalisation of these more abstract variables. The current research was designed to ensure that the data being collected would reflect the research aims and hypothetical constructs defined at the outset as indirect measures of adolescent socioemotional functioning. The indirect measures of socioemotional functioning are global and domain-specific self-concepts. The research also examined the extent to which age, gender and family SES influenced individual differences in multidimensional self-concept in late childhood and late adolescence.

#### ***Aims***

This study had 2 main aims:

- (i) To provide empirical understanding of the multidimensional self-concept status of Irish 10 and 17 year-olds and the patterns of change between those same time points.
- (ii) To examine the influences of gender and family SES on multidimensional self-concept status in late childhood and late adolescence in a small Irish sample.

#### ***Research Questions***

The research questions for the present study derived from various empirical studies and literature reports regarding the development of self-concept during adolescence and factors that influence that development.

The main research questions were as follows:

- (1) What is the multidimensional self-concept developmental status at 10 and 17 years of age and what are the patterns of change during that time?
- (2) To what extent does gender predict differences in multidimensional self-concept status and change at and between 10 and 17 years of age?
- (3) To what extent does family SES at birth predict self-concept status at 10 and 17 years of age?



## **CHAPTER 8**

### **RESULTS OF THE STUDY OF GENDER AND SES PREDICTORS OF SELF-CONCEPT STATUS AND CHANGE**

#### **8.1 Presentation of Results of Data Analysis**

Research questions were examined through a series of independent and paired samples t-tests, repeated measures analyses of variance (RM-ANOVA) and two-factor ANOVAs.

Since the outcome self-concept variables, measured using the Piers-Harris 2 Self-concept Scale, contained some overlapping items, a univariate approach was adopted rather than examining all outcomes simultaneously. Univariate analyses additionally afforded detailed examination of predictors that might be uniquely associated with each self-concept sub-domain. Separate RM-ANOVAs were performed for each of the seven self-concept criterion variables. Additional two-factor ANOVAs were performed to assess the effects of SES and gender on each of the self-concept variables at both time points.

Due to the inconclusive findings from past empirical studies, no directional hypotheses were stated and therefore the 2-tailed statistic is reported in all instances.

#### **8.2 Sequence of Presentation of Results**

Descriptive and statistical analyses are presented in the following sequence:

*8.2.1 Testing of Continuous Variables for Outliers and Normality*

*8.2.2 Frequencies for Dichotomous Predictor Variables*

*8.2.3 Descriptive Statistics and t-test Comparisons*

*8.2.4 Descriptive Statistics and Paired Samples t-tests across Time*

*8.2.5 Repeated Measures ANOVAs: Explaining Gender Differences over Time*

*8.2.6 ANOVA Analysis Examining Predictors of Self-concept Variables at T1 and T2*

### 8.2.1 Testing of Continuous Variables for Outliers and Normality

Prior to statistical analyses, continuous variables were inspected for outliers, defined as scores exceeding three Standard Deviations (SDs) from the mean. No outliers greater than three SDs from the mean were found at Time 1 or Time 2 for the self-concept criterion variables. All 72 cases were retained for analyses. Inspection of skew and kurtosis statistics revealed acceptable normality for continuous variables, with no cases exceeding more than twice the skew or kurtosis standard error. Normality was further examined by inspecting Q-Q (quantile-quantile) residual plots for normality, indicated by points falling along the reference line (Norusis, 2007). No serious deviations from normality were observed.

### 8.2.2 Frequencies for Dichotomous Predictor Variables

Categorical variables included in the analyses were dichotomous. Table 4 presents the frequencies and percents within each variable's categories. Coding schemes are included, to assist with interpretation of analyses.

**Table 4**

**Frequencies for Dichotomous Predictor Variables by Coding Scheme (Gender - N = 72; SES - N = 70)**

Variable	Group Coded 0			Group Coded 1		
		N	Percent		N	Percent
<b>Gender</b>	Female	40	55.6	Male	32	44.4
<b>SES</b>	<b>Lower/working Class</b>			<b>Mid/upper mid. Class</b>		
	Group	51	72.8	Group	19	27.2
	Females	29	41.4	Females	10	14.3
	Males	22	31.4	Males	9	12.9

### 8.2.3 *Descriptive Statistics and t-test Comparisons*

Full titles for the seven self-concept variables are listed with the abbreviations used in the tables shown in brackets after each variable:

Total Self-concept (Total SC)  
Behavioural Adjustment (Behavioural Adj)  
Intellectual and School Status (Intellect School)  
Physical Appearance and Attributes (Physical Appear)  
Freedom from Anxiety (Freedom Anx)  
Popularity (Popularity)  
Happiness and Satisfaction (Happiness Satis).

Self-concept variables were examined at Time 1 and Time 2, both for the full group of participants and separately by gender. Table 5 presents means and SDs for each group at Time 1 and Table 6 presents means and SDs for each group at Time 2. These tables also present the results of independent samples t- tests conducted to test for gender differences at Time1 and at Time 2.

**Table 5****Time 1 Self-concept Variables - Descriptive Statistics by Group and Independent t-tests for Females vs. Males**

Variable	Full Group			Females			Males			T-test		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	t value	df	p
Total SC	72	51.08	8.321	40	52.75	8.186	32	49.00	8.136	1.937	70	.057
Behavioural Adj	72	50.79	7.842	40	52.65	6.949	32	48.47	8.370	2.316	70	.023*
Intellect School	72	51.13	7.428	40	52.03	8.198	32	50.00	6.284	1.152	70	.253
Physical Appear	72	47.39	9.370	40	47.90	9.339	32	46.75	9.517	.515	70	.608
Freedom Anx	72	51.67	7.545	40	51.62	7.312	32	51.72	7.944	-.052	70	.959
Popularity	72	50.83	9.646	40	53.13	9.600	32	47.97	9.050	2.323	70	.023*
Happiness Satis	72	51.68	7.638	40	53.20	6.406	32	49.78	8.676	1.923	70	.059

Note \*  $p < .05$

As indicated in Table 3, significant gender differences at Time 1 were observed for the variables Behavioural Adjustment ( $p = .023$ ) and Popularity ( $p = .023$ ). Differences between females and males approached significance at Time 1 for Total Self-concept ( $p = .057$ ) and Happiness and Satisfaction ( $p = .059$ ). Females scored higher than males on each of the self-concept variables that reached or approached significance at Time 1. Of the seven self-concept variables examined, females scored higher than males on all but one; males scored higher than females on Freedom from Anxiety, although this mean difference was just .10.

**Table 6****Time 2 Self-concept Variables - Descriptive Statistics by Group and Independent t-tests for Females vs. Males**

Variable	Full Group			Females			Males			T-test		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	t value	df	p
Total SC	72	50.43	7.636	40	48.95	7.452	32	52.28	7.570	-1.872	70	.065
Behavioural Adj	72	52.67	9.187	40	53.53	7.929	32	51.59	10.586	.857 <sup>a</sup>	56.09	.395
Intellect School	72	49.26	7.614	40	49.72	7.864	32	48.69	7.372	.572	70	.569
Physical Appear	72	49.56	8.056	40	47.50	8.280	32	52.13	7.079	-2.509	70	.014*
Freedom Anx	72	48.49	9.322	40	44.60	8.025	32	53.34	8.612	-4.447	70	.000***
Popularity	72	52.82	9.006	40	52.10	8.233	32	53.72	9.949	-.756	70	.452
Happiness Satis	72	49.75	7.994	40	47.23	8.337	32	52.91	6.357	-3.183	70	.002**

<sup>a</sup>Note: Unequal variance used, given significant score on Levene test for equality of variances; \* p < .05; \*\* p < .01; \*\*\* p < .001

Time 2 t-test results for the self-concept variables are presented in Table 4. They indicate that significant gender differences were found for the self-concept variables of Physical Appearance and Attributes (p = .014), Freedom from Anxiety (p = .000) and Happiness and Satisfaction (p = .002). Differences approached significance for Total Self-concept (p = .065). Males scored higher than females on each of these four variables at Time 2. Males also scored higher than females on Popularity, although this difference was not significant. Females scored slightly higher than males on Behavioural Adjustment and Intellectual and School Status.

#### *8.2.4 Descriptive Statistics and Paired Samples t-tests across Time*

Given that this study had a matched subjects design at two time points, paired samples t-tests were used to compare participant scores on self-concept variables at Time 1 and Time 2. Tables 7, 8 and 9 provide means, SDs and results of paired samples t-tests for the seven self-concept variables across time for the full group of participants and by gender.

**Table 7****Descriptive Statistics and Paired Samples t-tests across Time, All Participants ( $N = 72$ )**

Variable	Time	Mean	<i>SD</i>	<i>t</i> -value	<i>df</i>	<i>p</i>
Total SC	Time 1	51.08	8.321	.535	71	.594
	Time 2	50.43	7.636			
Behavioural Adj	Time 1	50.79	7.842	-1.624	71	.109
	Time 2	52.67	9.187			
Intellect School	Time 1	51.13	7.428	1.670	71	.099
	Time 2	49.26	7.614			
Physical Appear	Time 1	47.39	9.370	-1.719	71	.090
	Time 2	49.56	8.056			
Freedom Anx	Time 1	51.67	7.545	2.555	71	.013*
	Time 2	48.49	9.322			
Popularity	Time 1	50.83	9.646	-1.471	71	.146
	Time 2	52.82	9.006			
Happiness Satis	Time 1	51.68	7.638	1.519	71	.133
	Time 2	49.75	7.994			

\*  $p < .05$ 

Table 7 presents data for the full group of participants. The sub-domain variable Freedom from Anxiety showed a significant decrease over time for this group. The other six self-concept sub-domains did not significantly vary over time for the full group of participants.

**Table 8****Descriptive Statistics and Paired Samples t-tests across Time, Female Participants ( $N = 40$ )**

Variable	Time	Mean	<i>SD</i>	<i>t</i> -value	<i>df</i>	<i>p</i>
Total SC	Time 1	52.75	8.186			
	Time 2	48.95	7.452			
Behavioural Adj	Time 1	52.65	6.949	2.229	39	.032*
	Time 2	53.53	7.929	-.540	39	.592
Intellect School	Time 1	52.03	8.198			
	Time 2	49.73	7.864	1.481	39	.147
Physical Appear	Time 1	47.90	9.339			
	Time 2	47.50	8.280	.246	39	.807
Freedom Anx	Time 1	51.63	7.312			
	Time 2	44.60	8.025	4.512	39	.000***
Popularity	Time 1	53.13	9.600			
	Time 2	52.10	8.233	.582	39	.564
Happiness Satis	Time 1	53.20	6.406			
	Time 2	47.23	8.337	3.728	39	.001**

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ 

Different patterns of change over time emerge when the subgroups of females and males are examined.

Table 8 shows a significant decrease between Time 1 and Time 2 for females on the variables of Total Self-concept, Freedom from Anxiety and Happiness and Satisfaction.



**Table 9****Descriptive Statistics and Paired Samples t-tests across Time, Male Participants ( $N = 32$ )**

Variable	Time	Mean	<i>SD</i>	<i>t</i> -value	<i>df</i>	<i>p</i>
Total SC	Time 1	49.00	8.136			
	Time 2	52.28	7.570	-2.211	31	.035*
Behavioral Adj	Time 1	48.47	8.370			
	Time 2	51.59	10.586	-1.918	31	.064
Intellect School	Time 1	50.00	6.284			
	Time 2	48.69	7.372	.816	31	.421
Physical Appear	Time 1	46.75	9.517			
	Time 2	52.13	7.079	-2.896	31	.007**
Freedom Anx	Time 1	51.72	7.944			
	Time 2	53.34	8.612	-.965	31	.342
Popularity	Time 1	47.97	9.050			
	Time 2	53.72	9.949	-2.989	31	.005**
Happiness Satis	Time 1	49.78	8.676			
	Time 2	52.91	6.357	-1.869	31	.071

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ 

Table 9 shows that males significantly improved in Total Self-concept, Physical Appearance and Attributes and Popularity over time. Also among males, improvement changes in Behavioural Adjustment ( $p = .064$ ) and Happiness and Satisfaction ( $p = .071$ ) approached significance.

### *8.2.5 Repeated Measures ANOVAs: Explaining Changes over Time*

Paired samples t-tests, conducted during initial examination of data, indicate that males and females vary in the nature and significance of changes in multidimensional self-concept over time. The question of whether these gender differences over time can be explained by the predictors examined during this study was next approached. To explain the gender differences found in the paired samples t-test analyses, RM-ANOVAs were conducted for each of the seven self-concept variables. Results are presented in Table 10.

**Table 10****Results of Repeated Measures ANOVAs for each Self-concept Variable ( $N = 72$ )**

Variable	Effect	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Total SC	Time	1	2.392	.050	.824
	Gender	1	1.559	.021	.886
	Time x Gender	1	445.725	9.290	.003**
Behavioural Adj	Time	1	142.222	2.962	.090
	Gender	1	332.112	3.512	.065
	Time x Gender	1	45.000	.937	.336
Intellect School	Time	1	116.001	2.565	.114
	Gender	1	83.368	1.222	.273
	Time x Gender	1	8.668	.192	.663
Physical Appear	Time	1	220.006	4.092	.047*
	Gender	1	107.339	1.126	.292
	Time x Gender	1	296.450	5.514	.022*
Freedom Anx	Time	1	259.200	5.503	.022*
	Gender	1	694.235	8.748	.004**
	Time x Gender	1	665.089	14.120	.000***
Popularity	Time	1	198.450	3.266	.075
	Gender	1	111.235	1.026	.315
	Time x Gender	1	408.006	6.715	.012*
Happiness Satis	Time	1	72.200	1.491	.226
	Gender	1	45.501	.707	.403
	Time x Gender	1	736.089	15.198	.000***

Note: \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Mixed designs, including one between- and one within-subjects repeated measures factor, require the assumptions of homogeneity of intercorrelations and sphericity. Homogeneity of intercorrelations was tested by inspecting the results of Box's M test statistics (Norusis, 2007). For each analysis this test was not significant, indicating the assumption is met. Sphericity is not an issue when the within-subjects factor consists of just two conditions of a repeated measure; in this study these are Time 1 and Time 2 (Aron, Aron & Coup, 2006). Main effects for time and gender and the interaction of time by gender were tested for each of the self-concept variables. Table 10 shows that significant gender by time interactions were found for the variables Total Self-concept ( $p = .003$ ), Physical Appearance ( $p = .022$ ), Freedom from Anxiety ( $p = .000$ ), Popularity ( $p = .012$ ) and Happiness and Satisfaction ( $p = .000$ ).

Time by gender interactions for each of the self-concept outcome variables are presented graphically in Figures 1-7 (pp.199 -202) in order to demonstrate clearly the patterns found in this study. In addition to these interactions, a significant Time effect was found for the variables Physical Appearance ( $p = .047$ ) and Freedom from Anxiety ( $p = .022$ ) and a significant gender effect was found for Freedom from Anxiety ( $p = .004$ ).

#### *8.2.6 Anova Analyses Examining Predictors of Self-concept Variables at Time 1 and Time 2.*

A series of two-way analyses of variance (ANOVAs) were carried out to examine the effects of gender and SES on each of the self-concept variables at Time 1 and Time 2. The sample size for these analyses was 70. Two participants did not indicate SES and were not included in the analyses. Each analysis included two levels of gender (male  $N = 31$ ; female  $N = 39$ ) and two levels of SES: middle/upper middle class ( $N = 19$ ); lower/working class ( $N = 51$ ).

Homogeneity of variance between groups was examined using Levene's test for equality of error variances. Equal variance between groups was found for the majority of analyses, with the exceptions of Behavioural Adjustment for Time 2 ( $F(3,66) = 3.437, p = .022$ ), and Freedom from Anxiety Time 1 ( $F(3,66) = 4.015, p = .011$ ). ANOVA procedures are generally robust against small to moderate departures from homogeneity of variance.

Tables 11 and 12 provide the results of these analyses, including main effects of gender and SES and the gender by SES interaction for each dependent variable.

**Table 11****Results of Time 1 Two Factor ANOVAs for each Self-concept Variable ( $N = 70$ )**

Variable	Effect	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Total SC	Gender	1	168.597	2.460	.122
	SES	1	.564	.008	.928
	Gender x SES	1	3.712	.054	.817
Behavioural Adj	Gender	1	163.821	2.848	.096
	SES	1	185.588	3.226	.077
	Gender x SES	1	22.333	.388	.535
Intellect School	Gender	1	52.636	.911	.343
	SES	1	8.543	.148	.702
	Gender x SES	1	.483	.008	.927
Physical Appear	Gender	1	17.609	.206	.652
	SES	1	355.572	4.152	.046*
	Gender x SES	1	32.372	.378	.541
Freedom Anx	Gender	1	1.407	.025	.875
	SES	1	158.191	2.817	.098
	Gender x SES	1	1.129	.020	.888
Popularity	Gender	1	430.286	5.114	.027*
	SES	1	107.395	1.276	.263
	Gender x SES	1	113.303	1.347	.250
Happiness Satis	Gender	1	93.538	1.619	.208
	SES	1	24.869	.430	.514
	Gender x SES	1	10.534	.182	.671

Note: \* $p < .05$ .

**Table 12****Results of Time 2 Two Factor ANOVAs for each Self-concept Variable ( $N = 70$ )**

Variable	Effect	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Total SC	Gender	1	128.023	2.149	.147
	SES	1	6.435	.108	.743
	Gender x SES	1	5.262	.088	.767
Behavioural Adj	Gender	1	.133	.002	.968
	SES	1	28.778	.340	.562
	Gender x SES	1	183.494	2.168	.146
Intellect School	Gender	1	9.200	.150	.700
	SES	1	19.195	.313	.578
	Gender x SES	1	1.391	.023	.881
Physical Appear	Gender	1	189.347	3.043	.086
	SES	1	16.824	.270	.605
	Gender x SES	1	51.405	.826	.367
Freedom Anx	Gender	1	840.535	11.684	.001**
	SES	1	1.932	.027	.870
	Gender x SES	1	34.618	.481	.490
Popularity	Gender	1	12.873	.151	.698
	SES	1	39.523	.465	.498
	Gender x SES	1	20.570	.242	.624
Happiness Satis	Gender	1	369.397	6.253	.015*
	SES	1	.937	.016	.900
	Gender x SES	1	11.022	.187	.667

Note: \* $p < .05$ . \*\* $p < .01$ .

Table 11 summarizes findings for Time 1. A significant main effect for gender was found for Popularity,  $F(1,66) = 5.114$ ,  $p = .027$ , with females ( $M = 52.74$ ,  $SD = 9.41$ ) scoring higher than males ( $M = 48.35$ ,  $SD = 8.93$ ). SES had a significant main effect for Physical Appearance  $F(1,66) = 5.152$ ,  $p = .046$ , with lower/working class at a higher mean ( $M = 48.73$ ,  $SD = 9.89$ ) level than middle/upper class ( $M = 43.74$ ,  $SD = 9.35$ ). No significant gender x SES interactions were found for any of the self-concept variables at Time 1.

Time 2 results are provided in Table 12. Gender main effects were significant for Freedom from Anxiety ( $F(1,66) = 11.684$ ,  $p = .001$ ) and for Happiness/Satisfaction ( $F(1,66) = 6.253$ ,  $p = .015$ ). Females had lower Freedom from Anxiety ( $M = 44.64$ ,  $SD = 8.13$ ) than males ( $M = 53.19$ ,  $SD = 8.71$ ). Females also indicated lower Happiness/Satisfaction (female  $M = 47.13$ ,  $SD = 8.42$ ; male  $M = 52.71$ ,  $SD = 6.36$ ). No significant SES main effects or significant gender x SES interactions were found for any of the self-concept variables at Time 2.

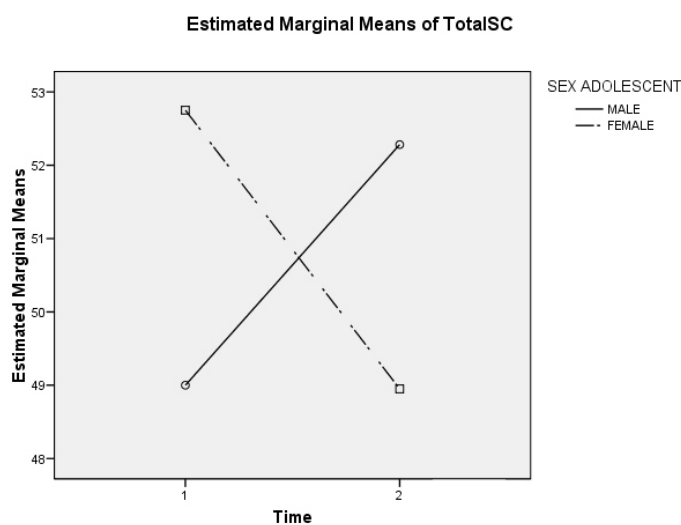
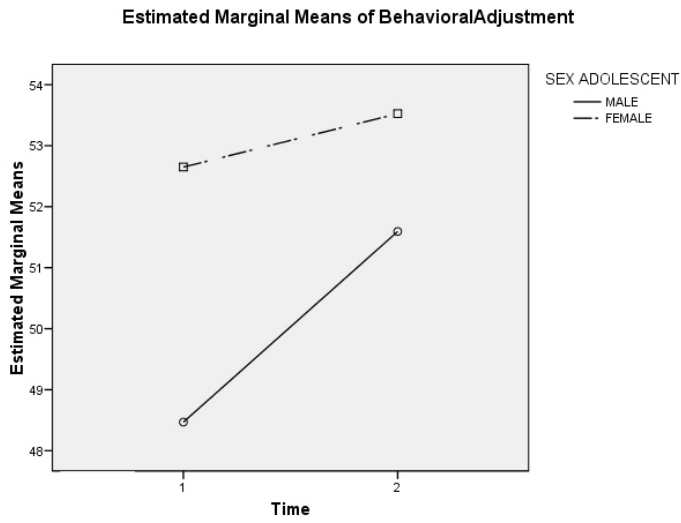
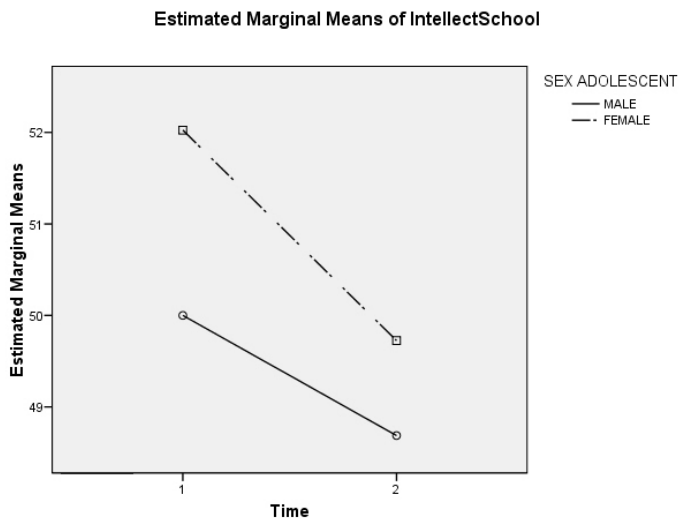


Figure 1: Time by Gender Interaction for Total Self-concept – ( $p = .003$ ).





*Figure 2: Time by Gender Interaction for Behavioural Adjustment – (not sig.).*



*Figure 3: Time by Gender Interaction for Intellectual and School Status – (not sig.).*

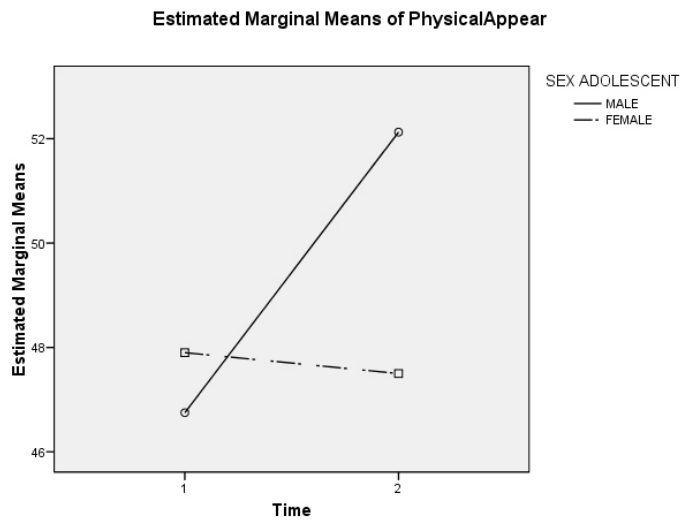


Figure 4: Time by Gender Interaction for Physical Appearance and Attributes – ( $p = .022$ ).

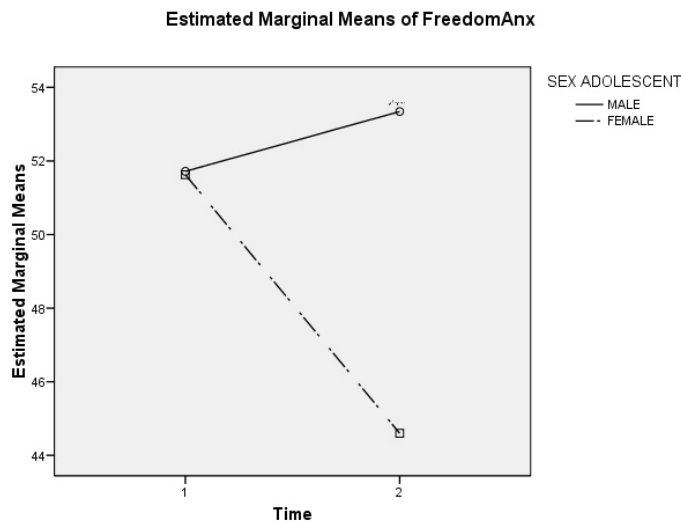


Figure 5: Time by Gender Interaction for Freedom from Anxiety – ( $p = .000$ ).

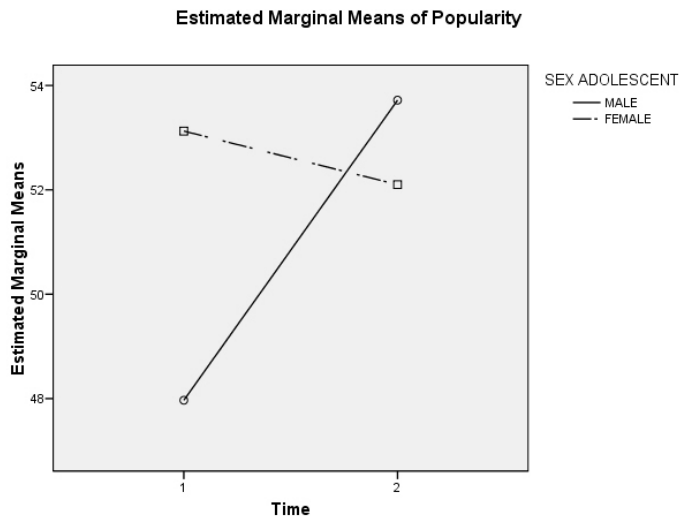


Figure 6: Time by Gender Interaction for Popularity – ( $p = .012$ ).



Figure 7: Time by Gender Interaction for Happiness and Satisfaction – ( $p = .000$ ).

## **CHAPTER 9**

### **GENERAL DISCUSSION OF RESULTS, SUMMARY AND CONCLUSION**

#### **9.1 Introduction**

A repeated criticism of past self-concept research is the unidimensional conceptualisation of the self-concept construct and failure to control for gender. This research builds on the very limited research available worldwide examining gender differences in multidimensional self-concept and is the first Irish study to investigate changes in self-concept as a function of gender and SES between late childhood and late adolescence. The longitudinal focus was made possible because self-concept data, collected when the participants were 17 years old, could be compared with self-concept data collected by other DCDS researchers when the child participants were 10 years of age. Family SES data was extracted from the data file collected at the inception of the DCDS in 1986.

The aims of the present study as previously outlined in **7.2** were:

- (i) To provide an empirical understanding of multidimensional self-concept status and change during adolescence in an Irish sample.
- (ii) To examine the influences of gender and family SES on multidimensional self-concept status in late childhood and late adolescence.

The research literature highlighted several, and often conflicting, patterns regarding age and gender differences in the development of self-concept between late childhood and late adolescence. Crain (1996) has been particularly emphatic about the importance of prioritising constitutional characteristics in self-concept research. Both she and Shapka and Keating (2005) have highlighted the fact that there is still much to learn about age- and gender-related influences on self-concept development and that research should

focus on these characteristics before including less foundational variables. Other research has focused on microsystem influences (e.g. Evans & English, 2002; Wachs, 2000; Bronfenbrenner & Morris, 1998; McLoyd, 1998; Orr, Emda & Dinur Batia, 1995). Family SES, an important feature of the microsystem, is the second major predictor variable in this study.

The findings generated by this research make some contribution to our present understanding of constitutional and family SES influences on self-concept development. In addition, this research provides information regarding worrying trends for Irish young females which need further investigation. If the adolescent female shift towards lower self-conceptions on a number of domains is corroborated in later research, there might be a need for some type of intervention, possibly in the form of an information campaign directed at adolescents, parents and teachers. Such a campaign might highlight the critical importance of a positive but not inflated self-concept for helping young persons make good choices about their lives. Whilst Steinberg (2007) has recently questioned the merit of educational interventions, what is unquestionable is that a positive self-concept acts as a buffer against adverse life events including negative peer pressure, societal gender inequality and inappropriate and undesirable media influence (Trew et al., 2006).

This chapter discusses findings in relation to stated research questions. It points out limitations of the study and makes recommendations for future research.

## **9.2 Self-concept Status at T1**

### *9.2.1 Intra Group Patterns*

When compared with the Piers-Harris norms (Appendix 6), the self-concept scores for the 10-year-old participants in this study fell within the medium range (40-55T) indicating that the self-perceptions of Irish children are comparable with those of their peer groups in the western world. The normative scores on almost all of the self-concept variables are consistent with the research by O'Connor (2007) who found that Irish 10 to 12 year-olds were confident about a predicted future. Across the different self-concept dimensions, the very narrow range in mean scores (50.79 - 51.68) indicates that the 10-year-olds in this study perceived themselves very similarly on Total Self-concept and five of the six sub-domains. These findings are consistent with the average scores for the GUI cohort of 9-year-olds (N=8,570) (GUI, 2009, Report 1, p.81) and reflect a lack of differentiation at the late childhood stage.

However, the fact that the group mean score on the *Physical Appearance and Attractiveness* sub-domain was approximately 4T points below scores on the other domains indicates more fragile physical self-conceptions for the participants in this research. This finding coincides with previous research by Cole et al. (2001) and Bolognini et al. (1996) who found that physical appearance self-concepts declined in preadolescence. The lower physical appearance self-conceptions found in this study are unlikely to be explained by pubertal changes and sexual maturation since the average age of onset for puberty in Ireland is approximately 12 ½ years for females (NicGabhainn, 2006) and later than that for young males. Even if more definitive information had been available on pubertal timing, Lalor et al. (2007) have cautioned

against making strong claims about the relationship between hormones and psychosocial adjustment due to mediating and moderating influences.

A possible explanation is that cultural pressures from the media to conform to a particular body shape may now be influencing preadolescents, causing the average 10-year-old, regardless of gender, to be more self-conscious about her/his looks and physique, leading to harsher self-criticism (Chiam, 1987). This explanation appears to be consistent with reported patterns regarding earlier onset of eating disorders in contemporary Irish society (Department of Health and Children, 2006) and the fact that the incidence amongst young females is being found at similar levels in young males. Poor body image self-perceptions have been linked with eating disorders in female (Kirsh et al., 2007; Gila et al., 2005) and male populations (Carper et al., 2010). The trend towards earlier onset of eating disorders becomes even more worrying considering Hauser and Bowld's (1990) review of the literature on adolescent psychosocial adjustment which found evidence that maladjustment, identified in adolescence, originated from problems that had existed in the prepubertal stage.

The importance of identifying patterns of psychological change, with potential psychosocial sequelae, was emphasised by Compas (2005). If the link between lower physical self-perceptions at 10 years of age and early onset eating disorders is verified in future research it might be beneficial to identify those 10-year-olds most at risk. A possible next step would be to design some interventions that might reverse the decline in physical appearance self-perceptions in late childhood with a view to preventing those most at risk of developing full-blown eating disorders such as anorexia nervosa and bulimia in middle adolescence. Parents and teachers might be informed about

evidenced-based strategies designed to boost their children's physical appearance self-concepts. They could also be advised on age-appropriate ways of discussing the unrealistic body shapes being presented by the media. The promulgation of this type of information might help to alleviate some of the peer and media pressures on children to conform to the false ideals that may be influencing them, even at this early stage. Children might also benefit from further advice about the importance of having a healthy eating regime in the home with little mention of diets and other patterns of restricted food consumption (Kelleher et al., 2003).

### *9.2.2 Gender Differences*

Hattie (1992) highlighted the salience of gender during the late childhood stage and the importance of reporting gender differences. In this study, self-concept mean scores were higher for females across six of the seven self-concept variables at T1. This strongly suggests that 10-year-old Dublin girls view themselves more positively than their male peers. Lerner (1978) theorised about the way in which culture and socio-historical context influence stereotypes, particularly with regard to attitudes and beliefs about gender roles.

The findings that girls' self-perceptions of *Behavioural Adjustment* and *Popularity* were significantly higher than those of the young boys support Lerner's (1978) theory and also the findings of Shapka and Keating (2005) and Marsh (1989) that females stereotypically have higher self-conceptions in the socially related domains. With regards to the *Happiness and Satisfaction* sub-domain, the almost significant gender difference favouring young girls is consistent with the higher female scores on all but one of the self-concept variables.



Mean scores on the *Physical Appearance and Attributes* sub-domain were relatively lower for both girls and boys but no significant gender differences were found. Based on the assumption that females are more vulnerable to media pressure to conform to a very lean body shape, a counterintuitive finding was the marginally higher self-ratings on *Physical Appearance and Attributes* by the female 10-year-olds as compared with their male peers. This may be partly explained by the fact that, at 10 years of age, the female participants are prepubertal and therefore their physical self-perceptions have not been majorly influenced by changing morphology and other pubertal influences. Pubertal effects tend to be more detrimental to physical appearance self-conceptions in females (Wilgenbusch & Merrell, 1999). The marginally higher mean for females found in this research appears to be inconsistent with the view expressed by Lalor et al. (2007) that young male self-perceptions may be less fragile since they focus more on physical ability than attractiveness. Perhaps the positive effects of this greater focus on physical ability become more salient after 10 years of age. Regrettably the Irish research by de Róiste and Dineen (2005), examining physical appearance satisfaction in Irish young persons, only included 12 to 18 year-olds, so figures are not available at 10 years of age for comparison. Implicit in the GUI findings (2009) for the 9-year-olds is that a decade later these gender differences in self-perceptions of physical appearance and attractiveness favouring males in late childhood have disappeared.

*Freedom from Anxiety* was the sole domain on which the boys scored higher than the girls at T1, with the difference being very marginal. This latter finding confirms the overall lower anxiety levels found for young males in the Wilgenbusch and Merrell (1999) meta-analysis.

The almost significant finding regarding gender differences on *Total Self-concept* favouring females seems to go against previous studies that found no gender effects (e.g. Ostgard-Ybrandt & Armelius, 2003; Asci, 2001; Mboya, 1999; Harter, 1999; Alfeld-Liro & Sigelman, 1998; Marsh, Craven & Debus, 1998; Mullis et al., 1992). The explanation for these gender neutral findings for *Total Self-concept* by Mullis et al. (1992) was that they result from less social prejudice and a more equitable approach to female/male gender roles. This explanation is challenged by the findings for the 10-year-olds in this study. O'Connor (2008) discussed the extent to which Irish youths are embedded within or disconnected from their social and cultural contexts and the differing ways of 'doing boy' or doing girl'. In particular she emphasised how these patterns of behaviour need to be interpreted in relation to the contemporaneous environment. The overall trend favouring girls at the late childhood stage may indicate that the patriarchal legacy is something that may not play out in psychosocial functioning in late childhood or that the patriarchal influences are less salient in contemporary Irish society. Lalor et al. (2007) alluded to the increasing complexity of gender-related issues in post-modern Ireland. Nationwide longitudinal studies such as the GUI (2006) are critically important for clarifying, with any degree of confidence, gender trends across different cohorts due to the influences that shifting socio-historical, sociocultural and socioeconomic forces have on young people's development (Crain, 1996).

### **9.3 Self-concept Status at T2**

#### *9.3.1 Intra Group Patterns*

When compared with the Piers-Harris norms (Appendix 5), the self-concept scores for the 17-year-olds in this study also fell within the 40-55 $T$  medium range, indicating parity with their western peer groups. However, in contrast to the less than 1 $T$  range at the 10-year stage for six of the seven measures of self-concept, mean scores for the group at T2 were much more varied, falling between 48.49-52.82, a difference of over 4 $T$ . This increased disparity is consistent with evidence that self-conceptions become increasingly differentiated with age (e.g. Elbogen et al., 2001; Marsh, Craven & Debus, 1998; van Welzenis, 1997; Byrne & Shavelson, 1996). It may also be indicative of the normal search for a more authentic self and synonymous with the on-going search for identity confirmed in 14 to 18 year-old Irish adolescents (O'Connor, 2008).

Group mean scores were above average for *Behavioural Adjustment* indicating that these Irish 17-year-olds perceive themselves to be well behaved. The *Behavioural Adjustment* result disputes a much earlier finding by Rosenberg and Rosenberg (1973) that self-evaluations of *Behavioural Adjustment* declined between late childhood and late adolescence. These positive self-conceptions of *Behavioural Adjustment*, in spite of evidence that binge drinking and cannabis use have increased amongst Irish adolescents, seem to confirm the finding by Mayock (2000) that Irish adolescents use alcohol and illicit drugs for social and recreational reasons. Referring to the mid-1990s, Lalor et al. (2007) pointed out how Irish 16-year-olds are the highest alcohol abusers in Europe and that binge drinking and drunkenness have become an accepted and normalised feature of adolescent behaviour. It would be important for future self-concept research to gather data about drug and alcohol use in late adolescence in order

to test the relationship between substance misuse and Behavioural Adjustment self-conceptions. If reports of substance misuse are not correlated with lower ratings on this domain it might suggest that alcohol and illicit drug use may not be viewed as wrong and that substance misuse has become so culturally accepted by adolescents growing up in Ireland that they are not negatively reflected in subjective statements about their behaviours. Any shift away from the societal acceptance of alcohol use in Ireland may be of particular benefit to Irish adolescents, since maladaptive substance use patterns are often laid down during this developmental stage.

The above average mean scores on *Popularity* indicate that these Irish 17-year-olds perceive themselves to be well liked by their peers. There is a vast amount of developmental research suggesting that a typical social trend during adolescence is towards less affiliation with parents and more with peers. There is also general acceptance that positive peer relationships act as a very important buffer against life's challenges during adolescence. The high group mean for *Popularity* is therefore a positive result since it implies that Irish 17-year-olds are well embedded within their peer group. Specific to the Irish context, Hanafin et al. (2007) found that the majority of adolescents had at least three same-sex friends and O'Connor (2008) found many more references to friendships in the 14 to 17 year-olds than the 10 to 12 year-olds in her study. Having strong links with peers and positive self-perceptions of *Popularity* may play an increasingly protective role in light of evidence that contemporary adolescents are detaching themselves more from parents and traditional social contexts than previous cohorts did (O'Connor, 2008).

Apart from *Total Self-concept*, mean scores on the remaining four sub-domains varied between 3T and 4T lower than the means for *Behavioural Adjustment* and *Popularity*. These scores suggest that the 17-year-olds assess themselves less positively in terms of *Intellectual and School Status*, *Physical Appearance and Attributes*, *Freedom from Anxiety* and *Happiness and Satisfaction*. The group score for *Freedom from Anxiety* was the lowest for all of the self-concept domains. This is consistent with Irish research by O'Connor (2008) indicating that adolescents experience existential angst about their lives in the present and in the future. On the other hand, the low group mean on *Freedom from Anxiety* seems to challenge or be challenged by Sullivan et al. (2004) who found only about 26% of Irish teenagers show signs of anxiety.

### 9.3.2 Gender Differences

At T2, the influence of gender on the seven self-concept variables shows a very different pattern from T1. In contrast to the more positive self-perceptions for females on six out of the seven self-concept domains at T1, the only domains on which the 17-year-old females outperformed the males at T2 were *Behavioural Adjustment* and *Intellectual and School Status* and these mean differences were very marginal. Significant gender differences favouring males were found for *Physical Appearance and Attributes*, *Freedom from Anxiety* and *Happiness and Satisfaction*.

The significantly higher male *Physical Appearance and Attributes* self-conceptions confirm stereotypical trends, with adolescent girls typically rating themselves lower than their male peers on this domain. Lower self-ratings for females on this domain were found in the recent meta-analysis by Gentile et al. (2009). Results available from a recent Irish study are particularly salient. Examining gender differences in physical

appearance satisfaction between 12 and 18 years of age, de Róiste & Dineen (2005) found that 55% of Irish 17-year-old females were happy with their appearance as opposed to 85% of males. This finding is consistent with the lower female ratings found in Wilgenbusch and Merrell's (1999) cross-cultural meta-analysis and their view that the gender disparity on this domain is a very disturbing trend. Links between physical self-conceptions, eating disorders and other psychosocial sequelae must be investigated across all age groups in order to identify sensitive periods when emotional well-being and body image are at their most vulnerable and intervention might be most beneficial.

A very strong finding was the worryingly low score on *Freedom from Anxiety* for the females at T2. Previous research has found higher levels of stress, anxiety and depression amongst adolescent females (e.g. Kashani et al., 1989; Petersen, 1987; Rutter, 1986) and highlights the female tendency to internalise problems. As a result of the fact that females tend to deal with chronic stress using internalising coping strategies, stressors tend to have more damaging effects. These effects are likely to be borne out in lower *Freedom from Anxiety* self-perceptions. O'Connor (2008) found that the average 14 to 17 year-old Irish girl was more reflective and focused on finding out who she really was and more fearful and anxious about life in general than her male peer.

The 17-year-old males in this study reported significantly higher self-ratings of *Happiness and Satisfaction*. This trend favouring males appears inconsistent with results from the Hanafin et al. (2007) study that found Irish boys in late adolescence were less likely to report being happy with their lives than their female peers. On the other hand, the higher mean score for males on *Happiness and Satisfaction* at T2

appears consistent with the summative effect of more positive self-conceptions across four of the other domains and the higher male mean for *Total Self-concept*.

With regard to *Total Self-concept*, even though T2 gender differences were only approaching significance, the result indicates that 17-year-old Irish females see themselves in a less positive light than do their male peers. Mullis et al. (1992) suggested that young persons were maturing in societies that have a more equitable approach to gender roles. Subsequent research challenged this view. Lower adolescent female global self-conceptions have been found in the Wilgenbusch and Merrell (1999) meta-analysis and in more recent research by Young and Mroczek (2003) and Cole et al. (2001). The lower finding at T2 for females in this research seems consistent with the significantly lower female scores on global self-concept amongst Irish adolescents (Cairns et al., 1990). It is interesting to note that this research was carried out in 1984/1985 just when the 17-year-olds in the current research were being born. The indications are that the global self-concept of the typical 17-year-old Irish female may be still vulnerable. It may be that the legacy of patriarchy is still operating in contemporary Irish society (Lalor et al., 2007), impacting more as young girls mature, so that by late adolescence these patriarchal forces may be adversely influencing female global self-conceptions.

#### **9.4 Changes in Self-concept between T1 and T2**

Research examining developmental change over time emphasises the importance of a longitudinal methodology, since findings are much more robust than when a cross sectional methodology is used (Mullis et al., 1992). The availability of data from the

same participants at two time points - late childhood and late adolescence - is an important strength of this study.

#### *9.4.1 Intra Group Patterns*

Wylie (1979), Hattie (1992) and Crain (1996) have all referred to the need to examine age-related changes in multidimensional self-concept rather than using a global conceptualisation only. When examining group changes in self-perceptions across all seven self-concept variables, the sub-domain *Freedom from Anxiety* was the only one to show a significant change, with self-conceptions decreasing over the seven-year period. Adolescence is a sensitive period during which many physical, emotional and social changes take place, provoking reassessment of the self-system and maturation of identity (Marcia, 1980). These psychosocial changes are likely to leave young persons more vulnerable to stress and anxiety during this developmental stage. This downward shift in ratings of *Freedom from Anxiety* between 10 and 17 years of age is consistent with international research (e.g. Petersen, 1987; Rutter, 1986) and also with O'Connor's textual analyses (2008) that found older Irish adolescents had more concerns than younger ones.

The lack of significant findings for the other six self-concept domains indicates a good measure of stability for the 72 participants. However, assumptions about this stability are entirely flawed. One of the main limitations of past self-concept research is the fact that, when data is examined at group level only, self-concepts may appear stable when in fact there are important counterbalancing effects taking place that mask the real trends. Wylie (1979), Hattie (1992) and Crain (1996) have all referred to these masking effects when there is no examination of gender differences.



At the design stage of this research, the primary goal was to redress the limitations in former studies by moving beyond group analyses to include an examination of gender effects on self-concept change during adolescence. Shapka and Keating (2005) expressed a similar rationale for their study but used a multioccasion, multi-cohort design since longitudinal data was only available for a limited time period of four years.

### *Total Self-concept*

With regard to global self-concept, Shapka and Keating (2005) found evidence that this remained relatively stable between 14 and 18 years of age. The current study found evidence of stability in *Total Self-concept* over a 7-year period between 10 and 17 years of age. This could be interpreted as a positive finding. However, closer examination of the mean scores at T1 and T2 show a marginal decline which is concerning, given the finding by Block and Robins (1993) that marginal differences in global self-concept development in middle adolescence became statistically significant by age 23. Re-examining *Total Self-concept* during emerging adulthood, using the same participants, might help to clarify if the downward trend in late adolescence continues and the decrease becomes statistically significant by this later stage.

### *Behavioural Adjustment*

Mean scores on *Behavioural Adjustment* increased marginally indicating that 17-year-olds perceive themselves better behaved than they did at 10. Given the research indicating the prevalence of binge drinking and substance use amongst Irish youths (Lalor et al., 2007; Hanafin et al., 2007; Flanagan et al., 2002), a likely explanation for why these illicit behaviours are not reflected in self-ratings of *Behavioural Adjustment* is the one offered by Lalor et al. - that misuse of alcohol and drugs is a lifestyle choice that has become acceptable and normalised for Irish adolescents. The GUI finding that

44% of 13-year-olds scored in the above average range on this sub-domain indicates that these positive self-perceptions of Behavioural Adjustment are stable through middle adolescence (2012, Report 4, p.3; 2009). Further clarification about trends during the entire adolescence period will be available following publication of the GUI results for the late adolescence stage.

#### *Intellectual and School Status*

With regard to *Intellectual and School Status*, the slight decrease in mean scores is consistent with findings from other research that have indicated scores on this sub-domain are generally lower in late adolescence than in late childhood (Shapka & Keating, 2005; Young & Mroczek, 2003; Cole et al., 2001; Bolignini et al., 1996; Wigfield et al., 1991; Eccles et al., 1989; Marsh, 1989). The slightly lower scores may reflect the fact that, at 17 years of age, these adolescents are approaching the end of the secondary school cycle and have shortly to face a state examination that may have important implications for their futures. Findings of a sharp decline in academic self-conceptions between 9 and 13 years (GUI, 2012; 2009) indicate that the transition to secondary school may threaten *Intellectual and School Status* self-conceptions and that, whilst there may be some recovery during adolescence, the more positive but inflated levels seen in late childhood may not be restored by 17 years of age.

#### *Physical Appearance and Attributes*

Research has found that self-ratings on the *Physical Appearance and Attributes* domain decline in early adolescence (GUI, 2012) but recover somewhat during the teenage years (Cole et al., 2001; Marsh, 1989). The current study found that group scores at T2 were marginally up from T1. The positive upward shift is likely to be partly due to the fact that, by late adolescence, young people may have become accustomed to their post

pubertal body shapes and their emerging sexuality. It may also indicate that Irish young persons from an urban area may be better equipped to deal with pressures to conform to the media stereotype (Stanley, 2001) or that they had the resources to buy clothes and products that enhanced their physical appearance self-perceptions. The money required to buy fashionable clothes and cosmetics was likely to be more available during the 'Celtic Tiger' era when Ireland experienced full adult employment and many opportunities of part-time employment for those over 16 years of age. The availability of extra money to spend on clothes and cosmetics may be a possible explanation for the atypical upward trend in *Physical Appearance and Attributes* self-ratings for the 17-year-old Irish adolescents involved in this research.

#### *Popularity*

Although not statistically significant, mean scores for *Popularity* were 2T higher at 17 years of age than they had been at 10. Early research indicated declining self-ratings on *Popularity* during adolescence (Bolognini et al., 1996; Marsh, 1989; McCarthy & Hoge, 1982). More recently, Shapka and Keating (2005) found an increase in self-perceptions of social acceptance and popularity within an age range of 14 to 18 years for middle/upper-middle class white youths. The marginally higher *Popularity* self-perceptions for the 17-year-olds in this study, who were from a predominantly lower socioeconomic background, appear to indicate that the Shapka and Keating finding may extend beyond middle/upper middle class categories to include lower socioeconomic groups also. Further research is needed to confirm whether this trend really exists and the extent to which it is culture neutral or culture specific. Referring more specifically to the Irish context, the higher scores on *Popularity* self-perceptions in late adolescence appear consistent with reports of older adolescents putting a lot of emphasis on peer

friendships and reporting high levels of satisfaction with their peer relationships (O'Connor, 2008; Hanafin et al., 2007).

However, evidence that *Popularity* self-conceptions may be coming under more threat in recent times comes from GUI data for the 13-year-olds (2012). Of the six self-concept sub-domains, the percentage of above average scores for both girls and boys on the *Popularity* sub-domain were lowest. This worrying pattern is synonymous with the increased use of cyber-communication, especially social networking sites, during the last decade. Cyber-communication and social media usage was much less prevalent during the 1990s when the girls and boys that participated in this research were transitioning through adolescence. The GUI finding indicates that *Popularity* self-conceptions may be threatened by the recent prevalence of social media usage, especially during adolescence when youths are more vulnerable to peer opinions.

#### *Happiness and Satisfaction*

Adolescents' perceptions regarding how happy they are with their lives are largely influenced by the society in which they are maturing and their experiences of the different contexts within that society. Also self-perceptions of how happy an adolescent is generally relate to self-ratings across other domains of life, indicating that scores of this domain might reflect scores on overall self-concept. An apparent linkage between scores on *Happiness and Satisfaction* and *Total Self-concept* may be implicit in the findings from the current study, since both show a very marginal drop between T1 and T2. The finding appears consistent with the trend observed for Irish 9 and 13 year-olds (GUI, 2009; 2012) and also with research by Hanafin et al. (2007) who found an overall downward reassessment of *Happiness and Satisfaction* self-perceptions as Irish youths moved through adolescence.

#### 9.4.2 Gender Differences

An important finding from this research was that the gender differences, favouring females at T1, were almost completely reversed by T2. Mean scores for the 10-year-old females were higher than those for their male peers on six of the seven self-concept domains but, by 17 years of age, male mean scores were higher than female scores on five of the seven self-concept variables. This pattern reversal, strongly favouring male adolescents, has not been clearly evident in previous self-concept research, largely because most of these earlier studies failed to examine age-related gender differences in self-concept development. The fact that self-conceptions of the females in this study tended to fall and male self-conceptions tended to rise, and that these trends are also reflected in the GUI data (2009; 2012), is a very important finding that demands further investigation. Even though some of these downward changes were not statistically significant, any negative trend is concerning since marginal changes may intensify over time and become significant by the mid-20s (Block & Robins, 1993). The Block and Robins study tested this only for global self-concept so more research is needed to investigate if this pattern is similarly found in any of the sub-domains.

Findings relating to the female participants in the current study show statistically significant lower self-ratings on *Total Self-concept*, *Freedom from Anxiety* and *Happiness and Satisfaction* self-concepts. By contrast, significant findings indicate how male self-perceptions of *Total Self-concept*, *Physical Appearance and Attributes* and *Popularity* improved between 10 and 17 years of age. These gender patterns are most clearly displayed in the graphs on pages 199-202 and are discussed here in domain order.

### *Total Self-concept*

Female scores on *Total Self-concept* were significantly lower at T2 than at T1 (52.75-48.95), a trend that was mirrored almost exactly but in the opposite direction for males (49.00-52.28). These counterbalancing effects provide clear support for the inclusion of gender as a key variable in self-concept research. Failure to examine gender leads to patterns being masked and researchers claiming stability in global self-concepts when in fact there are important gender specific trends that are cancelling each other out. The lack of focus on gender has also contributed to the high number of contradictory findings regarding global self-concept development. Precise timing of measurement and whether studies are cross-sectional or longitudinal also appear to influence findings regarding gender effects on global self-concept. Some researchers found that younger and older adolescent girls reported lower global self-concepts than boys of similar ages (e.g. Quatman & Watson, 2001; Bailey et al., 1992; Marsh et al., 1985; Richman, Clarke & Brown, 1985), others found stable or downward trajectories for global self-concepts of adolescent females and rising trajectories for adolescent males (e.g. Lewis & Knight, 2000; Chiam, 1987). Shapka and Keating (2005) found female global self-concept increased between 14 and 18 years of age, whilst male self-concepts tended to decrease. A possible solution that has been addressed in the GUI (2006) study, which should lead to more consistent findings, is for researchers to control for curvilinear effects by measuring gender effects on *Total Self-concept* longitudinally at four-yearly intervals e.g. 9/10, 13/14 and 17/18 years of age and to control for sample characteristics – e.g. normal functioning v gifted - since these characteristics have also been proven to influence self-concept development (e.g. Lewis & Knight, 2000).

### *Behavioural Adjustment*

Although there was a marginal increase in mean scores on *Behavioural Adjustment* for both females and males between T1 and T2, the changes were not significant. These findings indicate that self-ratings on this domain are relatively stable between late childhood and late adolescence for both genders. They are in line with results of the Wilgenbusch and Merrell (1999) meta-analysis that found no gender effects on self-perceptions of *Behavioural Adjustment* for secondary school participants. GUI findings (2009; 2012) for *Behavioural Adjustment* also indicate stability of these self-conceptions between late childhood and middle adolescence. Although no data was gathered on substance use in this research, the gender neutral stability of the self-conceptions of the 10 and 17 year-old participants may indicate that the suggested normalisation of binge drinking and illicit drug use applies to both female and male adolescents growing up in Ireland (O'Connor, 2008; Hanafin et al., 2007).

It would be important for self-concept researchers to gather data for the entire adolescence stage from both genders and for a greater variety of behaviours in order to be able to further explain the factors that contribute to stability and change in behavioural self-conceptions during adolescence.

### *Intellectual and School Status*

Female and male self-ratings on *Intellectual and School Status* remained relatively stable between T1 and T2, although there were very slight decreases for both genders. The slight decrease may be linked to a minor reassessment about their abilities on this domain facing the challenge of an important state exam. The evidence of stability in self-ratings of intellectual capability for both female and males during adolescence is

consistent with the meta-analytic findings of Gentile et al. (2009) that indicated no gender differences in academic self-concept during adolescence.

### *Physical Appearance and Attributes*

The stereotypic finding that gender differences, favouring adolescent males, are reflected in youth ratings of *Physical Appearance and Attributes* (e.g. Wilgenbusch & Merrell, 1999; Marsh, 1998; Bolognini et al., 1996; Wigfield et al., 1991; Marsh, 1989; Simmons & Blyth, 1987; Marsh, Barnes & Hocevar, 1985; Marsh, Parker & Barnes, 1985; Richman et al., 1984) was confirmed by the current study in that male self-ratings on this domain significantly increased during adolescence while female ratings remained stable. This positive trend for males may be explained by the fact that, as they progress through adolescence, typically males focus more on physical ability whereas females focus more on physical attractiveness (Lalor et al., 2007). This different emphasis may leave females more vulnerable to sociocultural and media pressures to conform to an unrealistic stereotype. Female increased vulnerability to these pressures was confirmed by Trew et al. (2006). The positive trend in physical appearance self-ratings for males indicated in the current study is consistent with research carried out by de Róiste & Dineen (2005). These Irish researchers examined physical appearance satisfaction and found that gender disparity, favouring males, increased between 12 and 17 years of age. Any assumption that stability between T1 and T2 in female self-ratings of *Physical Appearance and Attributes* might indicate more resistance to these cultural pressures may be challenged by GUI findings (2012) showing that half as many 13-year-old females scored above average on this sub-domain compared with their male peers. It may be that female self-conceptions on this domain show a dramatic downward shift in middle adolescence that is restored to preadolescent levels by 17



years of age. Future studies need to measure gender differences in *Physical Appearance and Attributes* self-concept in pre, mid and late adolescence to detect all changes. The availability of more detailed information regarding patterns of development of physical appearance self-conceptions might enable researchers to hypothesise about age-related links between poor body image self-perceptions, socioemotional development and eating disorders (Carper et al., 2010; Kirsh et al., 2007; Gila et al., 2005).

#### *Freedom from Anxiety*

One of the strongest findings in the current study was the statistically significant 7T fall in *Freedom from Anxiety* self-conceptions for female participants between T1 and T2. A recurrent finding is that female self-conceptions decrease during adolescence, largely because teenage girls are more vulnerable to increased levels of stress and anxiety and they internalise those feelings (Twenge & Nolen-Hoeksema, 2002; Nolen-Hoeksema, 2001; Petersen, 1987; Rutter, 1986). Lower female ratings on this domain are also consistent with the finding by O'Connor (2007) that female narratives contained more expressions of fear and anxiety about their lives than did the male narratives. By contrast, adolescent boys see themselves more free from anxiety in late adolescence than they do in late childhood (Wilgenbusch and Merrell, 1999; Osborne & LeGette, 1982; Piers, 1984, 1969). The recent finding of no gender effects on this domain in a meta-analysis by Gentile et al. (2009) is not supported by the findings from the current study. Differing results may be due to time or cohort effects or cultural differences. Evidence that cultural differences may be a factor in explaining why the findings of this study conflict with the Gentile et al. meta-analysis comes from recent Irish research. Anxiety was found to be more prevalent amongst teenage females (Sullivan et al., 2004) and the trend disfavouring Irish females became more pronounced during

adolescence (GUI, 2012; O'Connor, 2008; Lalor et al., 2007). Due to the psychosocial sequelae that may result from the downward trend in *Freedom from Anxiety* self-conceptions in urban Irish female adolescents, more research is needed to establish the extent to which these trends continue into emerging adulthood and beyond that stage in order to attempt to identify any personal and sociocultural factors that might be influencing them. Researchers and practitioners might then be challenged to find some ways of reversing these negative patterns.

### *Popularity*

The significant finding regarding changes in *Popularity* between T1 and T2 indicates that male self-conceptions on this domain are likely to become more positive during adolescence. Mean scores for females showed a very marginal decrease (*IT*). Research has indicated that adolescent females outperform their male peers on the social domains, due to better linguistic skills that become more salient during adolescence (Lynn & Wilson, 1993). A relatively consistent finding is that females typically score higher on measures of social acceptance and close friendships and their perceptions of *Popularity* increase during adolescence (e.g. Shapka & Keating, 2005; Wilgenbusch & Merrell, 1999; Marsh, 1989; Osborne & LeGette, 1982). Gentile et al. (2009), in a meta-analysis that included children, adolescents and adults, found no gender differences in social acceptance self-concept, with males reporting similar *Popularity* self-perceptions as females. The positive shift in male self-conceptions of *Popularity* found in this study may reflect a contemporary trend. It may be that males are now more confident in their relationships. It is possible that this confidence may be mediated by new technology, cyber-communication and social networking that may be especially beneficial for males for keeping in touch with their friends. It would be interesting to test for gender differences in the possible link between *Popularity* self-

conceptions and the use of social media amongst child and adolescent populations. Specifically within the Irish context, it would be interesting to know whether the lower ratings on *Popularity* self-perceptions observed amongst the GUI girl and boy participants at 13 years of age (2012) reflect a temporary trend or whether they are a phenomenon of the recent increase in social media usage that may continue to threaten *Popularity* self-conceptions through the entire stage of adolescence.

### *Happiness and Satisfaction*

Another strong finding in the current study was that female self-perceptions of *Happiness and Satisfaction* declined significantly between T1 and T2. This drop of *6T* was in contrast to the male trend which was approaching significance in a positive direction. The negative female trend in this study is not supported by the Wilgenbusch and Merrill (1999) meta-analysis. They found no gender differences in levels of *Happiness and Satisfaction* for the 13 to 18 year-old age group.

In an Irish study, O'Higgins (2002) examined the factors that contribute most to adolescent levels of happiness and found that Irish teenage girls reported a greater effect of relationships on their happiness whereas their male peers focused more on what life would offer in the future. Based on this finding, it is possible that growing up in a time of economic boom has increased levels of optimism about the future in the young male adolescents and that this may have contributed to their more positive ratings of *Happiness and Satisfaction*. The decreased levels for females and increased levels for males are consistent with the possibility that self-perceptions across other domains impact in a summative way on overall levels of *Happiness and Satisfaction*. Recent findings from the GUI study (2012) reflect a similar pattern, with fewer 13-

year-old females represented in the above average category than males on this sub-domain.

### **9.5 SES Effects on Self-concept at T1**

A number of researchers have confirmed links between socioeconomic disadvantage and socioemotional adjustment (e.g. Evans & English, 2002; McLoyd, 1998; Duncan & Brooks Gunn, 1997; Compas, 1995; Orr, Emda & Dinur Batia, 1995) and that chronic SES hardship impacts on the self-worth of children and adolescents (Shaw & Energy, 1988). Many of these findings come from cross-sectional research leading McLoyd (1998) and Duncan and Brooks Gunn (1997) to highlight the need for longitudinal studies across different developmental periods to clarify the developmental significance of chronic economic deprivation. Recently, Sirin (2005) has drawn attention to the need for researchers to evaluate the proximal and distal social and economic contexts that influence the extent to which poverty is perpetuated or alleviated. The participants in this study comprised 51 youths from a lower/working class background and 19 from a middle/upper middle class background, all growing up at a time when Ireland was experiencing a period of sustained economic prosperity and full employment.

One of the study's main aims was to examine the extent to which SES at birth influenced the self-concepts of these participants at 10 and 17 years of age.

### 9.5.1 SES and Self-concept at T1

#### *Physical Appearance and Attributes*

The only significant main effect of SES at T1 in this study was for the *Physical Appearance and Attributes* sub-domain. Ten year olds from the lower/working class group scored higher on this domain than their more socially advantaged peers. This finding contrasts with previous research indicating a link between poor nutrition and exercise, lower SES and lower physical appearance self-perceptions in adolescence (Paxton et al., 2006; Trew et al., 2006). The higher mean score on *Physical Appearance and Attributes* for the lower SES children is a positive finding given the link between low body satisfaction and unhealthy weight control behaviours (Paxton et al., 2006). On the other hand, the lower self-ratings for the middle-class children may leave them more at risk of developing low body image which can lead to unhealthy eating patterns in adolescence. Even though social class is largely ascribed in late childhood, findings from the current study indicate that the average 10-year-old from a lower SES family does not have poorer self-ratings of physical attractiveness than their middle class peers. It may be that the link between less healthy eating and exercise patterns and low physical appearance self-conceptions does not play out until after the late childhood stage. It is also possible that the average 10-year-old middle-class child is more susceptible to influences from the media than their lower class peers and that this results in less positive self-perceptions of attractiveness for the socially advantaged group, even at this early age.

#### *Total Self-concept*

No significant effect of SES on *Total Self-concept* at 10 years of age was found in this study. Rosenberg and Pearlin (1978) found a weak correlation between these two

variables in late childhood. The present research was carried out some 25 years later so the discrepancy might be explained by time and cohort effects.

### *Behavioural Adjustment*

At T1, SES did not significantly influence *Behavioural Adjustment* self-conceptions. In contrast, the GUI study (2009) found a link between SES and *Behavioural Adjustment* for the 9-year-olds with children from Professional/Managerial backgrounds having above average scores on *Behavioural Adjustment*. However, this pattern had dissipated by 13 years of age (GUI, 2012). There have been some indications that behavioural problems become more severe the longer a child is living in poverty and that low SES may become more linked with problem behaviours and lower self-ratings on this sub-domain after the late childhood stage (Adams, Hillman & Caydos, 1994; Butler, Starfield & Stenmark, 1984).

### *Intellectual and Schools Status*

SES did not influence self-perceptions of *Intellectual and Schools Status* at T1 for the participants in this study. Paxton et al. (1996) and Fu, Hinkle and Korslund (1983) did find a link between low SES and poorer self-ratings of intellectual ability. Research by Orr and Dinur (1995) is particularly relevant, due to the fact that their young participants were also growing up in an urban setting. Orr and Dinur found no links between SES and academic self-concept. The GUI Study (2009) did not find any link between social gradient and *Intellectual and School Status*. A similar finding for the 10-year-olds in the current study suggests that SES is not a strong predictor of academic self-conceptions in late childhood.

### *Freedom from Anxiety*

SES did not predict *Freedom from Anxiety* self-concept at T1. Bradley and Corwyn (2002) found substantial evidence that low SES children manifest symptoms of socio-emotional dysfunction more often than their higher affluent peers. More recently Bridgman (2011) pointed out how decades of research have demonstrated the importance of the resources in children's homes in supporting healthy socioemotional development. Evans and English (2002) found that perceptions of psychological adjustment in low SES 8 to 10 year-old children were significantly lower when compared with middle-income children and that these findings generalised from urban poor to rural poor. Irish research has also found that less advantaged families suffer psychologically as a result of the polarising of consumerist values (e.g. Smyth et al., 2003) and Lalor et al. (2007) have highlighted the link between family poverty and chronic anxiety and stress but in the postchildhood stage. The GUI study (2009) found a significant link between higher SES and more favourable *Freedom from Anxiety* self-concepts at 9 years of age. The non-significant link between SES and self-conceptions of *Freedom from Anxiety* in this study appears inconsistent with past findings but it should be noted that the p value of .098 for this domain in the current research indicates that a different finding might have emerged in a larger sample size.

### *Popularity*

Scores in this study on *Popularity* did not differ according to SES and this finding is consistent with the GUI finding (2009) of no gender effects in late childhood.

### *Happiness and Satisfaction*

The fact that SES was not correlated with *Happiness and Satisfaction* self-concepts in this study contradicts findings from more recent research reporting that higher SES was correlated with higher scores on this sub-domain (GUI, 2009). Findings from the GUI study are likely to be much more robust given the very large sample size.

### *SES by Gender Interaction Effects T1*

There were no significant SES by gender interaction effects for any of the self-concept variables at T1 indicating that social disadvantage at birth does not influence global or domain-specific self-conceptions in late childhood in ways that are gender specific.

### *Summary*

In the current study, the only significant effect of SES on multidimensional self-concept at T1 was for the *Physical Appearance and Attributes* sub-domain. This contrasts with previous findings of significant links between SES and other sub-domains. When considering how a family's position in society may influence development, researchers need to take account of the proximal and distal ecological processes. Elder (1997) emphasised this need to contextualise research and to consider SES influences as causal processes that are time-variant and therefore subject to cohort and time effects.

This study's overall finding that SES is not a major predictor of 10-year-olds' self-conceptions across a wide variety of domains may be due to the underrepresentation of the higher SES categories in the sample or time and cohort effects. It is also possible that the 10-year-olds from the lower SES categories did not experience deprivation to the same extent as previous or subsequent cohorts, partly due to benefits deriving from



full employment but also to the Government having more money to support family disadvantage in various ways so that their more positive self-conceptions may derive from more favourable socioeconomic conditions (Bartfeld & Meyer, 1994; Danziger & Danziger, 1993; Huston, 1991; Garfinkel & McLanahan, 1986). There are also strong indications that SES disadvantage may not be reflected in self-conceptions until after the late childhood stage (Twenge & Campbell, 2001; Fu, Hinkle & Korslund, 1983).

### **9.6 SES Effects on Self-concept at T2**

The cumulative deficit model posits that the longer a child is exposed to poverty and its environmental correlates the more adverse the consequences will be (e.g. Deutsch, 1973; Bronfenbrenner, 1986). An alternative suggestion offered by Rosenberg and Pearlin (1978) is that family SES assumes a greater degree of psychological centrality as young persons move through adolescence, due to broadening of their horizons, greater opportunities for social comparisons with peers and consequently an increased awareness of social differences. Evidence that SES effects do intensify with age came from the meta-analysis of Twenge and Campbell (2002). These previous findings of intensification effects were not borne out in the GUI findings at the 13-year stage (2012) or in the present research. Statistical analyses of data collected for the current study revealed no significant main effects of SES on any of the self-concept variables at T2.

#### *9.6.1 SES and Self-concept at T2*

##### *Total Self-concept*

Previous research on *Total Self-concept* produced contradictory findings. Cicirelli (1977) Bruch et al. (1972) and Trowbridge (1972) found that low SES adolescents had

higher global self-concepts. A decade later, Richman et al. (1985), Demo and Savin Williams (1983) and Osborne and Le Gette (1982) found a link between high SES and higher global self-conceptions. Further contradictory findings were revealed in the meta-analysis of Young and Mroczek (2003) who consequently suggested that more studies were needed to clarify the link between SES and global self-concept status and development during adolescence. However, there are some indications that SES effect size increases as young persons move through adolescence (Twenge & Campbell, 2001; Fu, Hinkle & Korslund, 1983; Hare, 1977; Kennedy, 1975) and Bachman and O'Malley (1977) found significant correlations between family SES and global self-concept in 16 to 18 year-olds. Based on the finding from their meta-analysis, Twenge and Campbell (2002) have advocated that age be included as a variable in any studies examining the link between SES and global self-concept and have suggested that past failure to control for age may in fact explain the inconsistent findings in the literature to date. The findings from this study show no link between SES and *Total Self-concept* in late adolescence but more research is needed using a larger and more varied sample.

### *Behavioural Adjustment*

Whilst there are indications of a link between low SES and problem behaviours in late adolescence (e.g. Adams, Hillman & Caydos, 1994; Butler, Starfield & Stenmark, 1984), little research has been carried out examining social class differences in self-perceptions of *Behavioural Adjustment*. McWhirter (1996) found a link between low SES, low self-concept and substance use but this finding was later challenged by Kirkaldya, Sienfenb, Surallb and Bischoff (2004). A link between low SES and behavioural problems, including illicit drug use, was established for Irish adolescents (Fahey et al., 1999; Mayock, 2000) but Flanagan et al. (2003) failed to confirm the

earlier finding. However, these studies were assessing SES effects on problem behaviours per se rather than on self-perceptions of *Behavioural Adjustment*. More research is needed on the precise link between adolescent self-perceptions of *Behavioural Adjustment* and family SES in late adolescence.

#### *Intellectual and Schools Status*

Evidence linking family SES with academic achievement comes from a recent meta-analysis by Sirin (2005). With regard to self-ratings on this domain, research has found that social class influenced academic self-concept in adolescence (Paxton et al., 1996; Fu, Hinkle & Korslund, 1983; Hare, 1977; Kennedy, 1975). However, the finding of no link between SES and *Intellectual and School Status* self-conceptions for urban children in this study seems to corroborate findings by Orr, Emda and Dinur Batia (1995) of no relationship between SES and academic self-concept in an urban setting.

#### *Physical Appearance and Attributes*

Physical appearance self-perceptions become more salient during the adolescence stage as young people widen their social horizons, engage more with peers, reassess their appearance and shape and become increasingly exposed to body stereotypes portrayed in the media. Lalor et al. (2007) have highlighted the fact that healthier food options are often more expensive than calorific high-fat alternatives but that lower SES families may not have the money to fund the healthier alternatives. Trew et al. (2006) did confirm a link between low SES and poorer nutrition during the teenage years. Good habits with regard to eating and exercise become especially important during adolescence, particularly in view of the link established between low physical self-perceptions and poor diet and exercise habits in adolescence (Paxton et al., 2006). The

fact that no link was established between SES and *Physical Appearance and Attributes* self-ratings for the 17-year-olds in this study indicates that social position is not a strong influence on physical appearance self-conceptions in late adolescence. This equalisation effect may be synonymous with lower SES groups having the financial means to present themselves in self-enhancing ways during periods of economic prosperity (O'Connor, 2008).

#### *Freedom from Anxiety*

Adolescents are often faced with new challenges that increase levels of stress and anxiety in their lives and there are some indications that lower SES children suffer more from emotional difficulties than their middle-class peers (e.g. Wickrama et al., 2008; Lalor et al., 2007; Katz, Joiner & Kwon, 2002; Schoon et al., 2002; Adams, Hillman & Caydos, 1994; Gore, Aseltine & Colton, 1992; Butler, Starfield & Stenmark, 1984). While there is a consistent finding regarding the link between low SES and poor socioemotional adjustment in late adolescence, studies measuring SES effects on self-perceptions of *Freedom from Anxiety* in late adolescence were not available. More research is needed to fill this void.

#### *Popularity*

Positive peer relationships are very important to the maturing adolescent and fitting in with peers becomes very important for the maturing self-system. The perception of being well accepted within one's same sex and opposite sex peer groups mediates positive self-ratings of *Popularity*. Schonfield et al. (2010) found that higher SES was linked to better social relationships during adolescence. In contrast, SES did not impact on the *Popularity* self-conceptions of the 17-year-olds in the current study. This finding

is supported by Irish research indicating that 90% of Irish teenagers reported having three or more friends, regardless of family social position (Currie et al., 2003).

### *Happiness and Satisfaction*

In this research, SES did not predict self-perceptions of *Happiness and Satisfaction* in late adolescence. However, other research, including a sample of the same age from a similar cohort by Kelleher et al. (2003), found that 88% of these Irish youths were happy with their lives. Consistent with this, an even more recent Irish study, comprising a sample of almost 1000 adolescents from the full range of social backgrounds, Lalor and Baird (2006) found that only 6% of these young people reported being sad or unhappy most of the time. The stereotypical view that adolescents from lower SES families are less happy with their lives than their middle class peers is not supported by the findings in this study.

### *SES by Gender Interaction Effects T2*

There were no significant SES by gender interaction effects for any of the self-concept variables at T2, indicating that a family's social position at birth does not influence multidimensional self-concept in late adolescence in ways that are gender specific.

### *Summary*

Previous research has indicated that SES disadvantage may not be reflected in self-conceptions until after the late-childhood stage (e.g. Twenge & Campbell, 2001; Fu, Hinkle & Korlund, 1983; Hare, 1977; Kennedy, 1975; Bachman & O'Malley, 1977). The T2 findings from the current study challenge this finding. They also cast doubts on the cumulative deficit model and assumptions that SES disparity becomes more salient

for a young person's self-system as she/he moves through adolescence. The fact that the significant relationship between SES and *Physical Appearance and Attributes* self-conceptions at T1 was not found again at T2 indicates that Irish teenagers from lower SES families feel as confident and positive about their appearance as their middle-class peers. The fact that no links were found between SES and multidimensional self-concept at T2 indicates that Irish teenagers from lower socioeconomic backgrounds growing up during the 'Celtic Tiger' era may have benefitted from the socioeconomic and sociocultural benefits arising from this period of prosperity. These macrosystem and chronosystem influences appear to have had positive benefits at the microsystem level to the extent that the self-conceptions of the 17-year-olds in this study have not been adversely affected by social disadvantage.

## **9.7 Summary, Limitations and Recommendations**

### *9.7.1 Summary of the Findings*

The current study examined gender and SES effects on multidimensional self-concept at 10 and 17 years of age. It also examined gender effects on self-concept developmental change between those two time points. Overall the results indicate that gender may be a stronger predictor at 17 than at 10 years of age and gender differences appear to become more pronounced during adolescence. Female self-concepts suffered during adolescence particularly for *Total Self-concept*, *Freedom from Anxiety* and *Happiness and Satisfaction*. Contrary to previous research, female self-ratings of *Physical Appearance and Attributes* showed a marginal non-significant increase in this study. For the male participants, self-ratings of *Total Self-concept*, *Behavioural Adjustment*, *Physical Appearance and Attributes*, *Popularity* and *Happiness and Satisfaction* improved during adolescence.

With regard to SES effects, apart from *Physical Appearance and Attributes* at T1, there were no significant SES effects on multidimensional self-concept at 10 or 17 years of age. No significant SES by gender effects were found at either T1 or T2.

The main contribution afforded by this research is that, even though it is a very small scale study, it is the first Irish study to examine gender effects on multidimensional self-concept between late childhood and late adolescence. The important American study by Shapka and Keating (2005) extended the previous research base by examining gender effects during adolescence for two cohorts but only over a two-year period, 14-16 and 15-17 years of age. The indication from previous studies is that two years may be too short a gap to use when examining developmental change in self-concept. This study provides information about gender differences in patterns of multidimensional self-concept development across a seven-year period and SES effects on those patterns. These findings may be useful for comparison with future research conducted in Ireland and elsewhere in the western world.

The different patterns in self-concept development found in this study, when compared with earlier research, indicate clearly the need for self-concept researchers to take into account cohort and time effects and how specific sociocultural, sociohistorical and socioeconomic contexts influence emerging self-conceptions.

#### *9.7.2 Limitations of this Study*

Even though this research formed part of a longitudinal study and had the benefit of data gathered by previous researchers, the fact that only a single cohort was included

makes the findings less robust than if the study had a sequential design. Due to the small sample size, the findings are representative of urban Irish adolescents from a lower SES background only and cannot be generalised to other Irish adolescents nor similarly aged young people growing up in other cultures.

A common limitation of studies using self-report measures is that data are open to social desirability bias. However, subjective report is the most widely used method of gathering data in self-concept research and is consistent with a phenomenological ethos.

Another limitation was failure to include psychosocial functional equivalents for all of the self-concept sub-domains at the design stage. This would have allowed for a more thorough triangulation of the measurement data. It would also have enabled the researcher to test for convergent validity by correlating self-concept scores with empirically validated psychosocial equivalents. This may have enhanced claims about the robustness of the findings.

A further limitation of the present study was that data regarding family SES classification was gathered at birth and was not collected again when the children were 10 or 17 years of age. This means that there was no control for any significant improvement or dis-improvement in the social position of any of the families of the children participating in the study. In addition, failure to include dichotomised measures of SES in this research meant that compensatory effects could not be analysed. The multi-indicator approach to conceptualising and operationalising SES has been supported in recent developmental research.



### *9.7.3 Recommendations for Future Research and Interventions*

When attempting to examine longitudinal change over time, a methodology that includes data from at least three time points is considered imperative. In developmental research the advantage of longitudinal studies is that they allow researchers identify sequences and patterns of change over time but studies using this methodology yield more robust findings if more than one cohort is included. Future studies should aim for a multi-occasion, multicohort sequential design to provide the most robust results. Self-concept research should also aim for a multimethod and multisource design since gathering comparative quantitative and qualitative data from different sources enables more robust claims to be made about the findings.

Given that the participants in this study were born in 1986, their self-concepts were maturing during a period when Ireland was experiencing an unprecedented economic boom. Since about 2005, Ireland has been slipping back into an economic recession and unemployment and economic hardship have become a factor once again in the lives of many. It would therefore be really beneficial to repeat the field work and gather more data from the same participants who are now in their mid-20s. Having data from three waves would facilitate the examination of developmental trajectories in multidimensional self-concept as well as the assessment of whether positive and negative trends continued, stabilised or changed over the period between late adolescence and late emerging adulthood. For comparison purposes, and to provide some information about cohort effects, it would be very beneficial to gather data from a current cohort of 17-year-olds.

The timing of data collection is critically important in self-concept research. Ideally researchers should avoid gathering data during sensitive periods that may contribute to temporary changes in self-conceptions. This researcher has also emphasised the critical importance of gathering self-concept data at regular intervals about 3-4 years apart in order to be able to identify trends accurately. The GUI study (2006) has taken account of this in the staging of the data waves. Self-concept data was gathered from 8,570 9-year-olds and 7,400 13-year-old Irish children. Findings for these age groups have already been published and there are plans to gather additional self-concept data in late adolescence.

The availability of data at three time points between late childhood and late adolescence will be important for revealing temporary curvilinear trends in middle adolescence that have been masked in previous research where longer time periods have elapsed between data waves. Once the multidimensional self-concept data has been collected for the late childhood, early and late adolescence stages, GUI researchers will be able to identify patterns of change across the entire adolescence stage. In addition, by comparing findings from the current study with GUI self-concept data it might be possible to make some observations about time and cohort effects. These comparisons might provide some indication about how growing up during an economic boom period versus a period of economic recession might influence developing self-conceptions and about the effects of increased social media usage on the self-conceptions of girls and boys as they transition through adolescence.

A primary goal of developmental research is to improve the quality of life for children and adolescents and to guide the development of sound public policy by making

suggestions about possible future interventions. In spite of international research findings indicating that psychosocial problems do increase during adolescence, well designed and evaluated interventions for the prevention of problems during this stage are rare. While it is generally accepted that social inequalities in Irish society persist, the findings of the current study indicate that family SES, when a child is born, is a very weak predictor of multidimensional self-concept status in late childhood and late adolescence. It would be important for future research to overcome the limitation in this study of not having a contemporaneous measure of family social position at all time points. The findings from this study would have been much enhanced by having a concurrent measure of SES at T1 and T2. Based on the limitation alluded to above, it is recommended that longitudinal research should gather SES data at all time points to control for possible changes in social position. In self-concept research in particular, SES is largely about how class conscious the participants are and consequently it would be beneficial to include both an objective and a phenomenological measure when categorising participants by social class. Another suggestion is that, when researchers are examining SES as a variable, they should use both a multiple indicator and a single indicator approach since this would allow for further delineation of the contribution of single and composite predictors.

The lack of a wide range of social categories in this research was also a limitation. Future self-concept research should attempt to sample the full range of SES categories. More precise information regarding the link between SES and self-concept development would extend the knowledge base and might help researchers identify more easily those children who are at risk of lower self-conceptions. The availability of more detailed information might inform the design of some modest interventions,

targeted specifically at the most vulnerable children. If negative patterns are consistently found to be domain-specific, researchers and practitioners will have clearer indications about the precise self-concept domains to target. Analysing gender and SES effects will also elucidate whether there is a need to focus on specific social groups or on society at large if more generic patterns exist.

- Abramovitz, R. H., Petersen, A. C. & Schulenberg, J. E. (1984). Changes in Self-image during Early Adolescence. *New Directions for Mental Health Services*, 22, 19-28.
- Achenbach, T. M. & Howell, C. T. (1993). Are American Children's Problems Getting Worse? A thirteen-year comparison. *Journal of American Academic Child and Adolescent Psychiatry*, 32, 1145-1154.
- Adams, B. N. (1994). Perceived Family Functioning and Adolescent Suicidal Behaviour. *Journal of the American Academy of Child and Adolescent Psychiatry*, 33, 498-507.
- Adams, B. N. (1998). *The Family: A Sociological Interpretation*. USA: Harcourt Brace.
- Adams, C., Hillman, N., & Gaydos, G. (1994). Behavioral Difficulties in Toddlers: Impact of sociocultural and biological risk factors. *Journal of Clinical Child Psychology*, 23, 373-381.
- Adams, G. R. & Gullotta, T. P. (1983). *Adolescent Life Experiences*. CA: Brooks Cole.
- Adamson, L. & Lyxell, B. (1996). Self-concept and Questions of Life: Identity development during late adolescence. *Journal of Adolescence*, 19, 569-582.
- Alasker, F. D. & Olweus, D. (1992). Stability of Global Self-evaluations in Early Adolescence: A cohort longitudinal study. *Journal of Research on Adolescence*, 2, 123-145.
- Alcock, J. E., Carments, D.W., Sadava, S.W., Collins, J. E. & Green, J. M. (1997). *A Textbook of Social Psychology*. Ontario: Prentice Hall/Allyn & Bacon.
- Alderson, P. (1995). *Listening to Children: Children, ethics and social research*. Barkingside: Barnardos.
- Allport, G. W. (1961). *Pattern and Growth in Personality*. New York: Holt, Rinehart and Winston.
- Anderson, J. R. (2002). Spanning Seven Orders of Magnitude: A challenge for cognitive modeling. *Cognitive Science*, 26, 85-112.

- Anthony, E. J. & Cohler, B. J. (Eds.), (1987). *The Invulnerable Child*. New York: Guilford Press.
- Arnett, J. A. (2000). Emerging Adulthood – A Theory of Development From Late Teens Through the Twenties. *American Psychologist*, 55, 469-480.
- Arnett, J. (2005). The Developmental Context of Substance Use in Emerging Adulthood. *Journal of Drug Issues*, 35, 235-253.
- Aron, A., Aron, A. & Coups, E. J. (2006). *Statistics for Psychology* (4th ed.). New Jersey: Pearson.
- Asci, F. H. (2002). An Investigation of Age and Gender Differences in Physical Self-Concept among Turkish Late Adolescents. *Adolescence*, 37(146), 366-372.
- Bachman, J. G. & O'Malley, P. M. (1977). Self-esteem in Young Men: A longitudinal analysis of the impact of educational and occupational attainment. *Journal of Personality and Social Psychology*, 35, 365-380.
- Bachman, J. G., O'Malley, P. M. & Johnston, J. J. (1978). Adolescence to Adulthood: A study of change and stability in the lives of young men. *Youth in Transition*, Vol. 6. Ann Arbor, MI: Institute for Social Research.
- Baldwin, S. A. & Hoffmann, J. P. (2002). The Dynamics of Self-Esteem: A growth curve analysis. *Journal of Youth and Adolescence*, 31(2), 101-113.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioural change. *Psychological Review*, 84, 191-215.
- Bandura, A. (1978). The Self-system in Reciprocal Determinism. *American Psychologist*, 33, 344-358.
- Bandura, A. (1982). The Self and Mechanisms of Agency. In J. Suls, (Ed.), *Psychological Perspectives on the Self*, 1 (pp. 3-39). NJ: Lawrence Erlbaum.
- Bartfeld, J. & Meyer, D. (1994). Are There Really Deadbeat Dads? The relationship between ability to pay, enforcement and compliance in nonmarital child support cases. *Social Service Review*, 68, 219-235.
- Beck, U. & Beck-Gernsheim, E. (2002). *Individualisation*. London: Sage.

- Bem, D. J. (1972). Self Perception Theory. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology*, 6, 1-62. NY: Academic Press.
- Benjamin, L. S. (1974). Structural Analysis of Social Behaviour. *Psychological Review*, 81, 392–425.
- Bergman, L. R. & Magnusson, D. (1990). General Issues about Data Quality in Longitudinal Research. In D. Magnusson & L.R. Bergman (Eds.), *Data Quality in Longitudinal Research* (pp. 248-262). USA: Cambridge University Press.
- Bergman, L. R. (1993). Some Methodological Issues in Longitudinal Research: Looking ahead. In D. Magnusson & P. Casaer (Eds.), *Longitudinal Research on Individual Development* (pp.217-241). Great Britain: Cambridge University Press.
- Berkman, L. F. & Kawachi, I. (2000). *Social Epidemiology*. Oxford: Oxford University Press.
- Berndt, T. J. (1979). Developmental Changes in Conformity to Peers and Parents. *Developmental Psychology*, 15, 608-616.
- Berzonsky, M. D. (1989). The Self as a Theorist: Individual differences in identity formation. *International Journal of Personal Construct Psychology*, 2(4), 363-376.
- Block, J. & Robins, R. W. (1993). A Longitudinal Study of Consistency and Change in Self-esteem from Early Adolescence to Early Adulthood. *Child Development*, 64, 909-923.
- Bolognini, M., Plancherel, B., Bettschart, W. & Halfon, O. (1996). Self-esteem and Mental Health in Early Adolescence: Development and gender differences. *Journal of Adolescence*, 19, 233-245.
- Bollen, K. A., Glanville, J. L. & Stecklov, G. (2001). Socioeconomic Status and Class in Studies of Fertility and Health in Developing Countries. *Annual Sociology Review*, 27, 153-185.
- Brace, N., Kemp, R. & Snelgar, R. (2003). *SPSS for Psychologists: A guide to data analysis using SPSS for Windows* (2<sup>nd</sup> ed.). UK: Palgrave Macmillan.

- Bracken, B. A. (1996). Clinical Applications of a Context-Dependent, Multidimensional Model of Self-Concept. In Bracken, B. A. (Ed.), *Handbook of Self-concept: Developmental, social and clinical considerations* (pp. 463-504). USA: Wiley.
- Bradley, R. H. & Corwyn, R. F. (2002). Socioeconomic Status and Child development. *Annual Review of Psychology*, 53, 371-399.
- Bradley, R. H. et al. (2000). The Home Environments of Children in Early Adolescence. *Journal of Research on Adolescence*, 10(3), 247-288.
- Bridgman, A. (2011). In This Issue. *Child Development*, 82(3), 739-743.
- Bronfenbrenner, U. (1979). *The Ecology of Human Development: Experiment by nature and design*. Cambridge: Cambridge University Press.
- Bronfenbrenner, U. (1986). Ecology of the Family as a Context for Human Development: Research perspectives. *Developmental Psychology*, 22(6), 723-742.
- Bronfenbrenner, U. & Morris, P. (2006). The Bioecological Model of Human Development. In R. M. V. Lerner, W. Damon & R. M. S. Lerner (Eds.), *Handbook of Child Psychology, Vol.1: Theoretical models of human development* (pp.793- 828). NJ: Wiley.
- Brooks-Gunn, J. & Paikoff, R. (1997). Sexuality and Developmental Transitions during Adolescence. In J. Schulenberg, J. Maggs, & K. Hurrelmann (Eds.), *Health Risks and Developmental Transitions during Adolescence* (pp.190-219). New York, NY: Cambridge University.
- Brooks-Gunn, J. & Petersen, A. C. (1991). Studying the Emergence of Depression and Depressive Symptoms during Adolescence. *Journal of Youth and Adolescence*, 20(2), 115-119.
- Brown, L. M. & Gilligan, C. (1992). *Meeting at the Crossroads: Women's psychology and girls' development*. NY: Ballantine Books.
- Bryman, A. (2001). *Social Research Methods*. UK: Oxford University Press
- Burns, M. & Seligman, M. E. P. (1989). Explanatory Style across the Lifespan: Evidence for stability over 52 years. *Journal of Personality and Social Psychology*, 56, 118-124.



- Butler, J. A., Starfield, B. & Stenmark, S . (1984). Child Health Policy. In H . W. Stevenson & A. E. Siegel (Eds.), *Child Development Research and Social Policy* (pp. 110-88). Chicago: University of Chicago Press.
- Byrne, B. (1996). *Measuring Self-concept across the Life Span: Issues and instrumentation*. Washington, DC: American Psychological Association.
- Byrne, B. M. & Shavelson, R. J. (1996). On the Structure of Social Self-concept for Pre-, Early- and Late-Adolescents: A test of Shavelson, Hubner and Stanton (1976). *Journal of Personality and Social Psychology*, 70, 599-613.
- Cairns, E., McWhirter, L., Duffy, U. & Barry, R. (1990). The Stability of Self-concept in Late Adolescence: Gender and situational effects. *Personality and Individual Differences*, 11, 937-944.
- Callan, V., Gallois, C. & Noller, P. (1992). The Relationship between Self-esteem and Psychological Adjustment in Young Adolescents. *Journal of Adolescence*, 15, 83-97.
- Capaldi, D. & Patterson, G. R. (1987). An Approach to the Problem of Recruitment and Retention Rates for Longitudinal Research. *Behavioural Assessment*, 9, 169-177.
- Carper, T. L. M., Negy, C. & Tantleff-Dunn, S. (2010). Relations among Media Influence, Body Image, Eating Concerns and Sexual Orientation in Men: A preliminary investigation. *Body Image*, 7(4), 301-309.
- Caspi, A. & Moffitt, T. E. (1993). When do Individual Differences Matter? A paradoxical theory of personality coherence. *Psychological Inquiry*, 4, 247-271.
- Chiam, H. K. (1987). Change in Self-concept during Adolescence. *Adolescence*, 22(85), 69-76.
- Cicirelli, V. (1977). Relationship of SES and Ethnicity to Primary Grade Children's Self-Concept. *Psychology of Schools*, 14, 213-215.
- Coie, J. D., Dodge, K. A. & Kupersmidt, J. B. (1990). Peer Group Behaviour and Social Status. In S. R. Asher & J. D. Coie (Eds.), *Peer Rejection in Childhood* (pp. 17–59). New York: Cambridge.

- Cole, D. A., Maxwell, S. E., Martin, J. M., Peeke, L. G., Seroczynski, A. D., Tram, J. M., Hoffman, K. B., Ruiz, M. D., Jacquez, F. & Maschman, T. (2001). The Development of Multiple Domains of Child and Adolescent Self-Concept: A cohort sequential longitudinal design. *Child Development*, 72(6), 1723-1746.
- Coleman, J. S. (1974). *Relationships in Adolescence*. Boston: Routledge & Kegan Paul.
- Coleman, J. S. (1988) Social Capital in the Creation of Human Capital. *The American Journal of Sociology*, 94, 95-120.
- Coleman, J. S. (1997) Social Capital in the Creation of Human Capital. In A.H Halsey et al. (Eds.), *Education: culture, economy and society* (pp. 80-95). Oxford: Oxford University Press.
- Coleman, J. & Roker, D. (1998). Adolescence. *The Psychologist*, December, 593-596.
- Compas, B. E., Hinden, B. R. & Gerhardt, C. A. (1995). Adolescent Development: Pathways and processes of risk and resilience. *Annual Review of Psychology*, 46, 265-293.
- Conger, R. D. & Conger, K. J. (2002). Resilience in Mid-Western Families: Selected findings from the first decade of a prospective, longitudinal study. *Journal of Marriage and the Family*, 64, 361-373.
- Conger, R. D., Conger, K.J. & Martin, M. J. (2010). Socioeconomic Status, Family Processes and Individual Development. *Journal of Marriage and the Family*, 72, 685-704.
- Conger, R. D. & Elder, G. H., Jr. (1994). *Families in Troubled Times*. NY: Aldine de Gruyter.
- Cooley, C. H. (1902). *Human Nature and the Social Order* (pp. 179-185). New York: Scribner.
- Cooper, H. & Hedges, L. V. (1994). Research Synthesis as a Scientific Enterprise. In H. Cooper & L.V. Hedges (Eds.), *The Handbook of Research Synthesis* (pp. 3-14). New York: Sage.
- Costello, E. J., Mustillo, S., Erkanli, A., Keeler, G. & Angold, A. (2003). Prevalence and Development of Psychiatric Disorders in Childhood and Adolescence, *Archives of General Psychiatry*, 60(8), 837-44.

- Crain, R. M. (1996). The Influence of Age, Race and Gender on Child and Adolescent Multidimensional Self-concept. In B. A. Bracken (Ed.), *Handbook of Self-concept: Developmental, social and clinical considerations* (pp. 395-420). New York: Wiley.
- Crain, R. M. & Bracken, B. A. (1994). Age, Race and Gender Differences in Child and Adolescent Self-concept: Evidence from a behavioural-acquisition, context-dependent model. *School Psychology Review*, 23, 496-511.
- Currie, C., Nic Gabhainn, S., Godeau, E., Roberts, C., Smith, R., Currie, D., Pickett, W., Richter, M., Morgan, A. & Barnekow, V. (2004), (Eds.), *Young People's Health in Context. Health Behaviour in School-aged Children (HBSC) study: international report from 2001/2002 survey*. Copenhagen: WHO.
- Deaux, K. (1984). From Individual Differences to Social Categories. *American Psychologist*, 39, 105-116.
- Deaux, K. & Kite, M. E. (1987). Thinking About Gender. In B. B. Hess & M. M. Ferree (Eds.), *Analyzing Gender: A handbook of Social Science Research* (pp. 92-117). Newbury Park, CA: Sage
- Deaux, K. & Lewis, L. (1984). Structure of Gender Stereotypes: Interrelations among components and gender label. *Journal of Personality and Social Psychology*, 46, 991-1004.
- Demo, D. H. & Savin-Williams, R. (1983). Early Adolescent Self-esteem as a Function of Social Class: Rosenberg and Pearlin revisited. *American Journal of Psychology*, 88, 763-764.
- Demo, D. H. & Savin-Williams, R. C. (1992). Self-concept Stability and Change during Adolescence. In R. P. Lipka & T. M. Brinthaupt (Eds.), *Self-perspectives across the Life Span* (pp.116-150). Albany, NY: State University of New York Press.
- De Róiste, Á. & Dineen, J. (2005). *Young People's Views about Opportunities, Barriers and Supports to Recreation and Leisure*. Dublin: National Children's Office.
- Dornbusch, S. M., Petersen, A. C. & Hetherington, E. M. (1991). Projecting the Future of Research on Adolescence. *Journal of Research on Adolescence*, 1(1), 7-17.

- Duncan, G. J., Brooks-Gunn, J. & Klebanov, P. K. (1994). Economic Deprivation and Early-childhood Development. *Child Development*, 65, 296-318.
- Duncan, G. J., Yeung, W. J., Brooks-Gunn, J. & Smith, J. R. (1998). How Much Does Childhood Poverty Affect the Life Chances of Children? *American Sociological Review*, 63, 416-423.
- Dusek, J. B. & Flaherty, J. F. (1981). The Development of Self-concept during the Adolescent Years. *Monographs of the Society for Research in Child Development*, 46, 1-49.
- Ebata, A. T., Petersen, A. & Conger, J. J. (1990). The Development of Psychopathology in Adolescence. In Rolf et al. (Eds.), *Risk and Protective Factors in the Development of Psychopathology* (pp. 308-333). NY: Cambridge University Press.
- Eccles, J. S., Midgeley, C., Wigfield, A., Buchanan, C. M., Reuman, D., Flanagan, C. & McIvor, D. (1993). Development during Adolescence: The impact of stage-environment fit on young adolescents' experiences in schools and in families. *American Psychologist*, 48, 90-101.
- Eccles, J. S., Wigfield, A., Flanagan, C. A., Miller, C., Reumann, D. A. & Yee, D. (1989). Self-concepts, Domain Values and Self-esteem: Relations and changes at early adolescence. *Journal of Personality*, 57, 283-310.
- Edelstein, W., Keller, M. & Whalen, K. (1984). Structure and Content in Social Cognition: Conceptual and empirical analysis. *Child Development*, 55, 1514-1526.
- Elbogen, E. B., Carlo, G. & Spaulding, W. (2001). Hierarchical Classification and the Integration of Self-structure in late Adolescence. *Journal of Adolescence*, 24, 657-670.
- Elder, G. H. (1979). Historical Change in Life Patterns and Personality. In P. B. Baltes & G. Brim (Eds.), *Lifespan Development and Behaviour*, 2, (pp.117-159). New York: Academic Press.
- Elder, G. H. J. & Caspi, A. (1988). Economic Stress in Lives: Developmental perspectives. *Journal of Sociology*, 44, 25-45.

- Epstein, S. (1973). The Self-concept Revisited or a Theory of a Theory. *American Psychologist*, 28, 404-416.
- Epstein, J. L. (1986). Friendship Selection: Developmental and environmental influences. In R. C. Mueller & C. R. Cooper (Eds.), *Process and Outcome in Peer Relationships* (pp. 129-160). New York: Academic Press.
- Epstein, S. (1991). Cognitive-experiential Self-theory: Implications for developmental psychology. In M. R. Gunnar & L. A. Sroufe (Eds.), *Self Processes and Development: The Minnesota Symposium on Child Development, Vol. 23* (pp. 111-137). Hillsdale, NJ: Erlbaum.
- Erikson, E. H. (1968). *Identity: Youth and crisis*. New York: Norton.
- Evans, G. W. & English K. (2002). The Environment of Poverty: Multiple stressor exposure, psychophysiological stress and socioemotional adjustment. *Child Development*, 73, 1238-48.
- Festinger, L. (1954). A Theory of Social Comparison. *Human Relations*, 7, 117-140.
- Findlay, R. & Wright, R. E. (1994). Gender, Poverty and the Intra-household Distribution of Resources. *CEPR Discussion Papers*, 913.
- Fleming, J. S. & Courtney, B. E. (1984). The Dimensionality of Self-esteem: Hierarchical facet model for revised measurement scales. *Journal of Personality and Social Psychology*, 46, 402-421.
- Flanagan, E., Bedford, D., O'Farrell, A., Browne, C. & Howell, F. (2004). Smoking, Alcohol & Illicit Drug Use among Young People in a Health Board Region in 1997 and 2002: A comparative study. *Irish Medical Journal*, 97, 230-232.
- Fontana, A. & Frey, J. H. (1994). Interviewing: The art of science. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp.371-376). Thousand Oaks: Sage.
- Fox, J. & Fogelman, K. (1990). New Possibilities for Longitudinal Studies of Intergenerational Factors in Child Health and Development. In D. Magnusson & L.R. Bergman (Eds.), *Data Quality in Longitudinal Research* (pp. 233-248). USA: Cambridge University Press.

- Fu, V. R., Hinkle, D. E. & Korslund, M. K. (1983). A Developmental Study of Ethnic Self-concept among Pre-adolescent Girls. *Journal of Genetic Psychology*, 83, (142), 67-74.
- Garber, J. & Hollon, S. D. (1991). What can Specificity Designs say about Causality in Psychopathology Research? *Psychological Bulletin*, 110(1), 129-136.
- Gallagher, S. (2000). Philosophical Conceptions on the Self: Implications for cognitive science. *Trends in Cognitive Science*, 4(1), 14-21.
- Garmezy, N. (1985). Stress Resistant Children: The search for protective factors. In J. Stevenson (Ed.), *Recent Research in Developmental Psychology*. Oxford: Pergamon Press.
- Garmezy, N. (1993). Children in Poverty: Resiliency despite risk. *Psychiatry*, 56(1), 127-136.
- Ge, X., Conger, R. D., Lorenz, F. O. & Simons, R. L. (1994). Parents' Stressful Life Events and Adolescent Depressed Mood. *Journal of Health and Social Behaviour*, 35, 28-44.
- Gentile, B., Grabe, S., Dolan-Pascoe, B., Twenge, J. M., Wells, B. E. & Maitino, A. (2009). Gender Differences in Domain-specific Self-esteem: A meta-analysis. *Review of General Psychology*, 13, 34-45.
- Gila, A., Castro, J., Gómez, J. & Toro, J. (2005). Social and Body Self-esteem in Adolescents with Eating Disorders. *International Journal of Psychology and Psychological Therapy*, 1(2), 63-71.
- Gore, S., Aseltine, R. H. & Colton, M. E. (1992). Social Structure, Life Stress and Depressive Symptoms in a High School-aged Population. *Journal of Health and Social Behaviour*, 33(2), 97-113.
- Greene, S. (1994). Growing up Irish: Development in context. *The Irish Journal of Psychology*, 15, 354-371.
- Greene, S. (2003). *The Psychological Development of Girls and Women: Rethinking change in time*. UK: Routledge.
- Greene, S. & Moane, G. (2000). Growing up Irish: Changing children in a changing society. *The Irish Journal of Psychology*, 21, 122-137.

- Greene, S. M., Nugent, J. K., Wieczorek-Deering, D., O'Mahony, P. & Graham, R. (1991). The Patterning of Depressive Symptoms in a Sample of First-time Mothers. *The Irish Journal of Psychology*, 12(2), 263-275.
- Greene, S., Wieczorek-Deering, D. & Nugent, K, (1995). Eighteen Months Old in Dublin. *Children & Society*, 9, 86-98.
- Greene, S., Williams, J., Doyle E., Harris E., McCrory, C., Murray, A., Quail, A., Swords, L., Thornton, M., Layte, R., O'Dowd, T. & Whelan, C. T. (2009). *Growing Up in Ireland – National Longitudinal Study of Children: Review of the literature pertaining to the 9-year cohort*. Dublin: The Stationery Office.
- Greenwald, A. G., Bellezza, F. S. & Banaji, M. R. (1988). Is Self-esteem a Central Ingredient of the Self-concept? *Personality and Social Psychology Bulletin*, 14, 34-45.
- Grotevant, H. D. (1986). Assessment of Identity Development: Current issues and future directions. *Journal of Adolescent Research*, 1, 175-182.
- Grotevant, H. & Cooper, C. (1986). Individuality and Connectedness in Adolescent Development: Review and prospects for research on identity, relationships and context. In E. Skoe & A. von der Lippe (Eds.), *Personality Development in Adolescence: A cross-national and lifespan perspective* (pp. 3-36). London: Routledge.
- Growing Up in Ireland Study (2006). *National Longitudinal Study of Children*. Department of Health and Children in collaboration with The Economic and Social Research Institute and The Children's Research Centre, Trinity College.
- Growing Up in Ireland (2009). *The Lives of 9 Year Olds*. Report 1. Dublin: The Stationery Office.
- Growing Up in Ireland (2012). *The Lives of 13 Year Olds*. Report 4. Dublin: The Stationery Office.
- Guyot, G. W., Fairchild, L. & Hill, M. (1981). Physical Fitness, Sport Participation, Body Build and Self-concept of Elementary School Children. *International*

*Journal of Sport Psychology, 12, 105-116.*

- Hagger, M., Ashford, B. & Stambulova, N. (1998). Russian and British children's Physical Self-perceptions and Physical Activity Participation. *Pediatric Exercise Science, 10, 137-152.*
- Hall, G. S. (1904). *Adolescence*. New York: Appleton.
- Hamachek, D. E. (1992). *Encounters with the Self*. (4<sup>th</sup>ed.). London: Harcourt Brace Jovanovich.
- Hanafin, S., Brooks, A. M., McGee, H., Brady, G., Roche, G., McKeever, R., NicGabhainn, S. & Molcho, M. (2007). *State of the Nation's Children. Ireland 2006*. Dublin: Stationery Office for the Office of the Minister for Children.
- Hare, B. R. (1977). Racial and Socioeconomic Variations in Preadolescent Area-specific and General Self-esteem. *International Journal of Intercultural Relations, 1(3), 31-51.*
- Harter, S. (1983). Developmental Perspectives on the Self-system. In E.M. Hetherington (Ed.), *Handbook of Child Psychology, Vol.4*, (pp. 275-386). New York: Wiley.
- Harter, S. (1985). *The Self-perception Profile for Children*. Denver: University of Denver.
- Harter, S. (1986). Cognitive Developmental Processes in the Integration of Concepts about Emotions and the Self. *Social Cognition, 4(2), 119-151.*
- Harter, S. (1986). Processes Underlying the Construction, Maintenance and Enhancement of the Self-concept in Children. In J. Suls & A.G. Greenwald (Eds.), *Psychological Perspectives on the Self* (pp.137-181). Hillsdale, NJ: Erlbaum.
- Harter, S. (1988). Developmental and Dynamic Changes in the Nature of the Self-concept: Implications for child psychotherapy. In S. Shirk (Ed.), *Cognitive Development and Child Psychotherapy* (pp. 119-160). New York: Plenum Press.
- Harter, S. (1993). Causes and Consequences of Low Self-esteem in Children and Adolescents. In R. F. Baumeister (Ed.), *Self-esteem: The puzzle of low self-regard* (pp. 87-106). New York: Plenum.



- Harter, S. (1996). Historical Roots of Contemporary Issues involving Self- concept. In B.A. Bracken (Ed.), *Handbook of Self-concept: Developmental, social and clinical considerations* (pp. 1-37). New York: Wiley.
- Harter, S. (1999). *The Construction of the Self: A developmental perspective*. New York: Guilford.
- Harter, S. & Monsour, A. (1992). Developmental Analysis of Conflict Caused by Opposing Attributes in the Adolescent. *Journal of Personality and Social Psychology*, 62, 1079–1096.
- Harter, S. & Pike, R. (1984). The Pictorial Scale of Perceived Competence and Social Acceptance for Young Children. *Child Development*, 55, 1969-1982.
- Hattie, J. (1992). *Self-concept*. Hillsdale, NJ: Erlbaum.
- Hattie, J. & Marsh, H. W. (1996). Future Directions in Self-concept Research. In B.A. Bracken (Ed.), *Handbook of Self-concept: Developmental, social and clinical considerations*. USA: Wiley.
- Hauser, S. T. & Bowlds, M. K. (1990). Stress, Coping, and Adaptation. In S. Feldman & G. Elliott (Eds.), *At the Threshold: The developing adolescent* (pp. 388-413). Cambridge, MA: Harvard University Press.
- Hayes, S. D., Crocker, P. R. E. & Kowalski, K. C. (1999). Gender Differences in Physical Self-perceptions, Global Self-esteem and Physical Activity: Evaluation of the physical self-perception profile model. *Journal of Sport Behavior*, 22, 1-14.
- Haynes, N. M. (1990). Influence of Self-concept on School Adjustment among Middle School Students. *Journal of Social Psychology*, 130, 199–208.
- Hirsch, B. J. & DuBois, D. L. (1991). Self-esteem in Early Adolescence: The identification and prediction of contrasting longitudinal trajectories. *Journal of Youth and Adolescence*, 20, 53-72.
- Ho, C. S., Lempers, J. D., & Clark-Lempers, D. S. (1995). Effects of Economic Hardship on Adolescent Self-esteem: A family mediation model. *Adolescence*, 30, 117, 117-31.

- Holmbeck, G. N. & Hill, J. P. (1988). Storm and Stress Beliefs about Adolescence: Prevalence, self-reported antecedents and effects of an undergraduate course. *Journal of Youth and Adolescence*, 17(4), 285-306.
- Howell, R. J. (2010). Subjectivity and the Elusiveness of the Self. *Canadian Journal of Philosophy*, 40(3), 459-484.
- Huitt, W. (2009). Self-concept and Self-esteem. *Educational Psychology Interactive*. Available: <http://www.edpsycinteractive.org/topics/self/self.html>. Accessed October 16, 2011.
- Huston, A., McLoyd, V. C. & Garcia-Coll, C. (1994). Children and Poverty: Issues in contemporary research. *Child Development*, 65, 275-282.
- James, W. (1890/1983). *The Principles of Psychology*. New York: Modern Library.
- Janeway Conger, J. & Galambos, N. L. (1997). *Adolescence and Youth: Psychological development in a changing world*. NY: Harpers.
- Kaplan, H. (1978). Deviant Behaviour and Self-enhancement in Adolescence. *Journal of Youth and Adolescence*, 7, 253-277.
- Katz, J., Joiner, T. E., Jr. & Kwon, P. (2002). Membership in a Devalued Social Group and Emotional Well-being: Testing a model of personal self-esteem, collective self-esteem and group socialization. *Sex Roles*, 47, 419-431.
- Kelleher, C. (2003). *The National Health & Lifestyle Surveys, Survey of Lifestyle, Attitudes and Nutrition (SLÁN) & the Irish Health Behaviour in School-aged Children Survey (HBSC)*. Galway: Centre for Health Promotion Studies, National University of Ireland.
- Keith, L. K. & Bracken, B. A. (1996). Self-concept Instrumentation: A historical and evaluative overview. In Bracken, B.A. (Ed.), *Handbook of Self-concept: Developmental, social and clinical considerations* (pp. 91-170). USA: Wiley.
- Kerlinger, F. H. (1992). *Foundations of Behavioural Research*. Florida: Harcourt Brace.
- Kirkcaldy, B. D., Siefen, G., Surall, D., Bischoff, R. J. (2004). Predictors of Drug and Alcohol Abuse among Children and Adolescents. *Personality and Individual Differences* 36, 247-265.

- Kirsh, G., McVey, G., Tweed, S. & Katzman, D. K. (2007). Psychosocial Profiles of Young Adolescent Females Seeking Treatment for an Eating Disorder. *Journal of Adolescent Health, 40*(4), 351-356.
- Kling, K. C., Hyde, J. S., Showers, C. J. & Buswell, B. N. (1999). Gender Differences in Self-esteem: A meta-analysis. *Psychological Bulletin, 125*, 470-500.
- Kolnes, L. (1995). Heterosexuality as an Organizing Principle in Women's Sport. *International Review for the Sociology of Sport, 30*, 61-77.
- Lalor, K., de Róiste, Á. & Devlin, M. (2007). *Young People in Contemporary Ireland*. Dublin: Gill & Macmillan.
- Lazarsfeld, P. (1958). Evidence and Inference in Social Research. *Daedalus, 87*, 120-121.
- Leadbeater, B. J., Blatt, S. J. & Quinlan, D. M. (1995). Gender-linked Vulnerabilities to Depressive Symptoms, Stress, and Problem Behaviours in Adolescents. *Journal of Research on Adolescence, 5*, 1-29.
- Lees, S. (1993). *Sugar and Spice: Sexuality and adolescent girls*. UK: Penguin.
- Lemley, N. N. (2004). *The Reliability of the Piers-Harris Children's Self-concept Scale, Second Edition*. Available: <http://www.marshall.edu/wp-content/blogs.dir/137/files/etd/descript.asp?ref=514> Accessed October 10, 2013.
- Lerner, R. M. (2007). The Good Teen: Rescuing adolescence from the myths of the storm and stress years. *Journal of Youth and Adolescence, 39*(7), 843-846.
- Lerner, R. M. (2008). The Contributions of Paul B. Baltes to the Transformation of the Field of Child Development: From developmental psychology to developmental science. *Research in Human Development, 5*(2), 69-79.
- Lerner, R. M., Sorell, G. T. & Brackney, B. E. (1981). Sex Differences in Self-concept and Self-esteem of Late Adolescents: A time-lag analysis. *Sex Roles, 7*(7), 709-722.
- Leventhal, T. & Brooks-Gunn, J. (2000). The Neighbourhoods They Live In: The effects of neighbourhood residence on child and adolescent outcomes. *Psychological Bulletin, 126*, 309-337.

- Leventhal, H. & Keeshan, P. (1993). Promoting Healthy Alternatives to Substance Abuse. In S. G. Millstein, A. C. Petersen & E. O. Nightingale (Eds.), *Promoting the Health of Adolescents: New directions for the twenty-first century* (pp. 260-284). UK: Oxford University Press.
- Levin, J. D. (1992). *Theories of the Self*. Washington, D.C.: Taylor Francis.
- Levy, K. StC. (1997). The Contribution of Self-concept in the Aetiology of Adolescent Delinquency. *Adolescence*, 32, 671-686.
- Lewis, M. & Brooks-Gunn, J. (1979). *Social Cognition and the Acquisition of Self*. NY: Plenum Books.
- Lewis, J. D. & Knight, H. V. (2000). Self-concept in Gifted Youth: An investigation employing the Piers-Harris subscales. *Gifted Child Quarterly*, 44, 45-53.
- Lynch, K. & Lodge, A. (2002). *Equality and Power in Schools: Redistribution, Recognition and Representation*. London: Routledge Falmer.
- Lynn, R. & Wilson, R. G. (1993). Sex Differences in Cognitive Ability among Irish Primary and Secondary School Children. *Irish Journal of Psychology*, 14, 293-300.
- Luscombe, A. & Riley, T. L. (2001). An Examination of Self-concept in Academically Gifted Adolescents: Do gender differences occur? *Roeper Review*, 24, 20-22.
- Luthar S. S. & Cushing, G. (1999). Neighborhood Influences and Child Development: A prospective study of substance abusers' offspring. *Developmental Psychopathology*, 11, 763-784.
- McCarthy, J. D. & Hoge, D. R. (1982). Analysis of Age Effects in Longitudinal Studies of Adolescent Self-esteem. *Developmental Psychology*, 18, 372-379.
- McGreil, M. (1996). *Prejudice in Ireland Revisited*. Dublin: College of Industrial Relations.
- McLeod, J. D. & Kaiser, K. (2004). Childhood Emotional and Behavioural Problems and Educational Attainment. *American Sociological Review*, 69, 636-658.
- McLoyd, V. C. (1997). The Impact of Poverty and Low Socioeconomic Status on the Socioemotional Functioning of African-American Children and Adolescents:

- Mediating effects. In R. D. Taylor & M. Wang (Eds.), *Social and Emotional Adjustment and Family Relations in Ethnic Minority Families* (pp.7–34). Mahwah, NJ: Erlbaum.
- McLoyd, V. C. (1998). Socioeconomic Disadvantage and Child Development. *American Psychologist*, *53*, 185-204.
- McLoyd, V. C., Ceballo, R. & Mangelsdorf, S. C. (1997). The Effects of Poverty on Children's Socioemotional Development. In N. E. Alessi (Ed.), *Handbook of Child and Adolescent Psychiatry* (pp. 191-206). New York: John Wiley.
- McWhirter, P. T. (1998). Risk Factors Associated with Adolescent Alcohol, Tobacco, Marijuana, Solvent Inhalant and Cocaine Use. *National Institute on Drug Abuse Research Monograph*, *179*, 202.
- Maccoby, E. E. & Jacklin, C. N. (1974). *The Psychology of Sex Differences*. Stanford, CA: Stanford University Press.
- Magnusson, D., Stattin, H. & Allen, V. L. (1985). Biological Maturation and Social Development: A longitudinal study of some adjustment processes from midadolescence to adulthood. *Journal of Youth and Adolescence*, *14*, 267-283.
- Marcia, J. E. (1980). Identity in Adolescence. In J. Adelson (Ed.), *Handbook of Adolescent Psychology* (pp. 159-187). New York: Wiley.
- Markus, H. (1977). Self-schemata and Processing Information about the Self. *Journal of Personality and Social Psychology*, *35*, 63-78.
- Markus, H. & Sentis, K. (1982). The Self in Social Information Processing. In J. Suls (Ed.), *Psychological Perspectives on the Self, Vol.1* (pp. 41-70). Hillsdale, NJ: Erlbaum.
- Marsh, H. W. (1987). Masculinity, Femininity and Androgyny: Their relations to multiple dimensions of self-concept. *Multivariate Behavioural Research*, *22*, 991-118.
- Marsh, H. W. (1989). Age and Sex Effects in Multiple Dimensions of Self-concept: Preadolescence to Early Adulthood. *Journal of Educational Psychology*, *81*, 417-430.

- Marsh, H.W. (1990). A Multidimensional, Hierarchical Model of Self-concept: Theoretical and empirical justification. *Educational Psychology Review*, 2, 77-172.
- Marsh, H. W., Barnes, J., Cairns, L. & Tidman, M, (1984). The Self Description Questionnaire (SDQ): Age effects in the structure and level of self-concept for preadolescent children. *Journal of Educational Psychology*, 76, 940-956.
- Marsh, H. W., Barnes, J. & Hocevar, D. (1985). Self-other Agreement on Multidimensional Self-concept Ratings: Factor analysis and multitrait, multi-method analysis. *Journal of Personality and Social Psychology*, 49, 1360-1377.
- Marsh, H. W., Byrne, B. M. & Shavelson, R. (1988). A Multifaceted Academic Self-concept: Its hierarchical structure and its relation to academic achievement. *Journal of Educational Psychology*, 80, 366-380.
- Marsh, H. W., Craven, R. & Debus, R, (1998). Structure and Stability of Young Children's Self-Concepts: A multicohort, multi-occasion study. *Child Development*, 69(4), 1030-1053.
- Marsh, H. W. & Hocevar, D. (1985). The Application of Confirmatory Factor Analysis to the Study of Self-concept: First and higher order factor structures and their invariance across age groups. *Psychological Bulletin*, 97, 562-582.
- Marsh, H. W., Parker, J. & Barnes, J. (1985). Multidimensional Adolescent Self-concepts: Their relationship to age, sex and academic measures. *American Educational Research Journal*, 22, 422-444.
- Marsh, H. W. & Shavelson, R. J. (1985). Self-concept: Its multifaceted, hierarchical structure. *Educational Psychologist*, 20, 107-125.
- Masten, A. S. & Coatsworth, J. D. (1998). The Development of Competence in Favourable and Unfavourable Environments. *American Psychologist*, 53(2), 205-220.
- Mayock, P. (2000). *Choosers or Losers? Influences on Young People's Choices about Drugs in Inner-City Dublin*. Dublin: The Children's Research Centre, Trinity College.
- Masten, A. S. & Coatsworth, J. D. (1998). The Development of Competence in Favourable and Unfavourable Environments. *American Psychologist*, 53(2), 205-

220.

- Mboya, M. M. (1999). Multiple Dimensions of Adolescent Self-concept: Relations with age, gender and scholastic measures. *School Psychology International*, 20(4), 388-398.
- Mead, G. H. (1934) *Mind, Self and Society from the Standpoint of a Social Behaviourist*. Chicago: University of Chicago Press.
- Mercy, J. A. & Steelman, L. C. (1982). Familial Influence of the Educational Attainment of Children. *American Sociological Review*, 47(4), 532-542.
- Moeller, T. G. (1994). What Research Says about Self-esteem and Academic Performance. *Education Digest*, 59(5), 34.
- Moneta, G. B., Schneider, B. & Csikszentmihalyi, M. (2001). A Longitudinal Study of the Self-Concept and Experiential Components of Self Worth and Affect Across Adolescence. *Applied Developmental Science*, 5, 125-142.
- Mullener, N. & Laird, J. D. (1971). Some Developmental Changes in the Organisation of Self-evaluations. *Developmental Psychology*, 5, 233-236.
- Mullis, A. K., Mullis, R. L. & Normandin, D. (1992). Cross-sectional and Longitudinal Comparisons of Adolescent Self-esteem. *Adolescence*, 27(105), 51-61.
- Neisser, U. (1988). Five Kinds of Self-knowledge. *Philosophical Psychology*, 1, 35-39.
- NicGahhainn, S. (2006). *The Mean Age at Menarche of Irish Girls in 2006*. Retrieved from [http://www.nuigalway.ie/hbsc/document/oconnell\\_imj\\_menarche.pdf](http://www.nuigalway.ie/hbsc/document/oconnell_imj_menarche.pdf)
- NicGahhainn, S. & Mullan, E. (2003). Self-esteem Norms for Irish Young People. *Psychological Reports*, 92, 829-830.
- Nolen-Hoeksema, S. (2001). Gender Differences in Depression. *Current Directions in Psychological Science*, 10, 173-176.
- Nolen-Hoeksema, S. & Girgus, J.S. (1994). The Emergence of Gender Differences in Depression during Adolescence. *Psychological Bulletin*, 115(3), 424-443.
- Norusis, M. J. (2007). *SPSS 15: Advanced Procedures Companion*. Upper Saddle River, NJ: Pearson.

- O'Connor, P. (2008). *Irish Children and Teenagers in a Changing World*. UK: Manchester University Press.
- Offer, D. & Schonert-Reichl, K. A. (1992). Debunking the Myths of Adolescence: Findings from recent research. *Journal of the American Academy of Child and Adolescent Psychiatry*, *31*, 1003-1014.
- Office of the President (2012). *Being Young and Irish 2012: Take charge of change*. Retrieved from <http://www.president.ie/youngandirish/>
- O'Higgins, S. (2002). *Through the Looking Glass: Young People's Perceptions of the Words Health and Happy*. Unpublished MA Thesis, Department of Health Promotion, National University of Ireland, Galway.
- O'Malley, P. & Bachman, J. (1983). Change and Stability between Ages 13 and 23. *Developmental Psychology*, *19*, 257-268.
- Orr, E. & Dinur, B. (1995). Actual and Perceived Parental Social Status: Effects on adolescent self-concept. *Adolescence*, *30*(119), 603-616.
- Osborne, W. L. & Le Gette, H. R. (1982). Sex, Race, Grade Level and Social Class Differences in Self-concept. *Measurement and Evaluation in Guidance*, *14*(4), 195-201.
- Östgård-Ybrandt, H. & Armelius, B-A. (2003). Self-concept in Adolescence: A study of age and gender differences in groups of normal and antisocial adolescents. [Electronic version] *Department of Psychology Umeå University*, *3*, 1-17. Retrieved 22 March 2011 from: [http://www.psy.umu.se/digitalAssets/12/12462\\_upr3.pdf](http://www.psy.umu.se/digitalAssets/12/12462_upr3.pdf).
- Owens, E. B. & Shaw, D. S. (2003). Poverty and Early Childhood Adjustment. In S.S Luthar (Ed.), *Resilience and Vulnerability: Adaptation in the context of childhood adversities* (pp. 267-292). NY: Cambridge University Press.
- Paikoff, R. & Brooks-Gunn, J. (1991). Do Parent-child Relationships change During Puberty? *Psychological Bulletin*, *110*(1), 47-66.
- Park, J. (2003). Adolescent Self-concept and Health into Adulthood. *Health Reports*, *14*, 41-52.
- Paxton, S. J., Neumark-Sztainer, D. & Hannan, P.J. (2006). Body Dissatisfaction Prospectively Predicts Depressive Mood and Low Self-esteem in Adolescent



- Girls and Boys. *Journal of Clinical Child and Adolescent Psychology*, 35(4), 539-545.
- Perry, D. G. & Pauletti, R. E. (2011). Gender and Adolescent Development. *Journal of Research on Adolescence*, 21(1), 61-74.
- Petersen, A. C. (1988). Adolescent Development. In M. R. Rosenzweig & L. W. Porter (Eds.), *Annual Review of Psychology*, 39, 583-608. Palo Alto, CA: Annual Reviews.
- Petersen, A. D. & Crockett, L. (1989). Pubertal Timing and Grade Effects on Adjustment. *Journal of Early Adolescence*, 9(3), 247-268.
- Peterson, A. C., Sarigiani, P. A., & Kennedy, R. E. (1991). Adolescent Depression: Why more girls? *Journal of Youth and Adolescence*, 20(2), 247-271.
- Petersen, A. C. & Taylor, B. (1980). The Biological Approach to Adolescence. In J. Adelson (Ed.), *Handbook of Adolescent Psychology* (pp. 117-155). New York: Wiley.
- Phillips, D. A. & Zigler, E. F. (1980). Children's Self-image Disparity: Effects of age, socioeconomic status, ethnicity, and gender. *Journal of Personality and Social Psychology* 39(4), 689-700.
- Phinney, J. & Goosens, L. (Eds.), (1996). Identity Development in Context. *Journal of Adolescence*, 19, 401-500.
- Piaget, J. (1954). *The Child's Construction of Reality*. New York: Basic Books.
- Piers, E. V. (1984). *Piers-Harris Children's Self-Concept Scale: Revised Manual*. Los Angeles, CA: Western Psychological Services.
- Piers, E. V. & Herzberg, D. S., (2002). *Piers-Harris Children's Self Concept Scale* (2nd Ed.). Los Angeles, CA: Western Psychological Services.
- Pomerantz, E. M., Altermatt, E. R. & Saxon, J. L. (2002). Making the Grade but Feeling Distressed: Gender differences in academic performance and internal distress. *Journal of Educational Psychology*, 94, 396-404.
- Pungello, E. P., Kuperschmidt, J. B., Burchinal, M. R. & Patterson, C. (1996). Environmental Risk Factors and Children's Achievement from Middle Childhood to Adolescence. *Developmental Psychology*, 32, 755-767.

- Purkey, W. (1988). *An Overview of Self-concept Theory for Counsellors*. Ann Arbor, Mich.: ERIC Clearinghouse on Counselling and Personnel Services.
- Quatman, T. & Watson, C. M. (2001). Gender Differences in Adolescent Self-esteem: An exploration of domains. *Journal of Genetic Psychology*, 162(1), 93-117.
- Richman, C. L., Clark, M. L. & Brown, K. P. (1985). General and Specific Self-esteem in Late Adolescent Students: Race, gender and sex effects. *Adolescence*, 20(79), 556-566.
- Roberts, H. (2000). Listening to Children and Hearing Them. In Christensen & James (Eds.), *Research with Children: Perspectives & practices* (pp. 120-135). London & New York: Falmer Press.
- Rosenberg, M. & Pearlin, L. I. (1978). Social Class and Self-esteem among Children and Adults. *American Journal of Sociology*, 84, 53-77.
- Rutter, M. (1986). The Developmental Psychopathology of Depression: Issues and perspectives. In M. Rutter, C. E. Izard & P. B. Read (Eds.), *Depression in Young People* (pp. 3-30). New York: Guilford Press.
- Rutter, M. (1989). Pathways from Childhood to Adult Life. *Journal of Child Psychology and Psychiatry*, 30, 23-51.
- Rutter, M. & Rutter, M. (1993). *Developing Minds: Challenge and continuity across the life span*. New York: Basic Books.
- Sameroff, A. (1993). Stability of Intelligence from Preschool to Adolescence: The influence of social and family risk factors. *Child Development*, 64(1), 80-97.
- Sameroff, A. (2009). The Transactional Model. In A. Sameroff (Ed.), *The Transactional Model of Development: How children and contexts shape each other*. Washington, DC: American Psychological Association.
- Santrock, J. W. (2008). *Life-Span Development* (11<sup>th</sup>ed.). New York: McGraw-Hill.
- Savin-Williams, R. C. & Demo, D. H. (1984). Developmental Change and Stability in Adolescent Self-concept. *Developmental Psychology*, 20, 1100-1110.
- Savin-Williams, R. C. & Berndt, T. J. (1990). Friendships and Peer Relations. In S. S. Feldman & G. R. Elliott (Eds.), *At the Threshold: The developing adolescent* (pp.277-307). Cambridge, MA: Harvard University Press.
- Schaffer, H. R. (1996). *Social Development*. Oxford: Blackwell

- Schoon, I. & Parsons, S. (2002) Competence in the Face of Adversity: The influence of early family environment and long-term consequences. *Children and Society*, 16, 260-272.
- Schweitzer, R. D., Seth-Smith, M. & Callan, V. (1992). The Relationship between Self-esteem and Psychological Adjustment in Young Adolescents. *Journal of Adolescence*, 15, 83-97.
- Selman, R. (1980). *The Growth of Interpersonal Understanding*. New York: Academic Press.
- Shapero, B. G. & Steinberg, L. (2013). Emotional Reactivity and Exposure to Household Stress in Childhood Predict Psychological Problems in Adolescence. *Journal of Youth and Adolescence*, 42(10), 1573-1582.
- Shapka, J. D. & Keating, D. P. (2005). Structure and Change in Self-concept during Adolescence. *Canadian Journal of Behavioural Science*, 37(2), 83-96.
- Shavelson, R. J. & Bolus, R. (1982). Self-concept: The interplay of theory and methods. *Journal of Educational Psychology*, 74, 3-17.
- Shavelson, R. J., Hubner, J. J. & Stanton, G. C. (1976). Self-concept: Validation of construct interpretations. *Review of Educational Psychology*, 46, 407-441.
- Shirk, S. R. & Renouf, A. G. (1992). The Tasks of Self-development in Middle Childhood and Early Adolescence. In R. Lipka & T. M. Brinthaupt (Eds.), *Self-Perspectives Across the Lifespan* (pp. 226-249). New York: State University of New York Press.
- Shore, M. F., Massimo, J. L. & Ricks, D. F. (1965). A Factor Analytic Study of Psychotherapeutic Change in Delinquent Boys. *Journal of Clinical Psychology*, 21(2), 208-212.
- Simmons, R. G. & Blyth, D. A. (1987). *Moving into Adolescence: The impact of pubertal change and school context*. New York: Aldine De Gruyter.
- Simmons, R. G., Blyth, D. A., Van Cleave, E. F. & Bush, D. M. (1979). Entry into Early Adolescence: The impact of school structure, puberty and early dating on self esteem. *American Sociological Review*, 44, 948-967.
- Simmons, R. G. & Rosenberg, F. (1975). Sex, Sex roles and Self-image. *Journal of Youth and Adolescence*, 4, 229-258.

- Simmons, R., Rosenberg, F. & Rosenberg, M. (1973). Disturbance in the Self Image at Adolescence. *American Sociological Review*, 38, 553-568.
- Sirin, S. R. (2005). Socioeconomic Status and Academic Achievement: A meta-analytic review of research. *Review of Educational Research*, 75(3), 417-453.
- Skaalvik, E. M. (1986). Sex Differences in Global Self-esteem: A research review. *Scandinavian Journal of Educational Research*, 30(4), 167-179.
- Smyth, E., McCoy, S., Darmody, M. & Dunne, A. (2007). Changing Times, Changing Schools? Quality of life for students. In T. Fahey, H. Russell & C. T. Whelan (Eds.), *Best of Times? The Social Impact of the Celtic Tiger* (pp. 139-54). Dublin: Institute of Public Administration.
- Stanley, F. (2001). Towards a National Partnership for Developmental Health and Well-being. *Family Matters*, 58, 64-67.
- Steinberg, L. (2007). Risk Taking in Adolescence: New perspectives from Brain and behavioural science. *Current Directions in Psychological Science*, 16(2), 55-59.
- Steinberg, L. (2008). A Social Neuroscience Perspective on Adolescent Risk Taking. *Developmental Review*, 28(1), 78-106.
- Steinberg, L., Lamborn, S. D., Dornbusch, S. M., & Darling, N. (1992). Impact of Parenting Practices on Adolescent Achievement: Authoritative parenting, school involvement and encouragement to succeed. *Child Development*, 63, 1266-1281.
- Steinberg, L. & Lerner, R. M. (2004) The Scientific Study of Adolescence: A Brief History. *Journal of Early Adolescence*, 24(1), 45-54.
- Steinhausen, H., Offer, D., Ostrov, E. & Howard, K. (1988). Transcultural Comparisons of Self-image in German and United States Adolescents. *Journal of Youth and Adolescence*, 17(6), 515-520.
- Stentsenko, A., Little, T. D., Gordeeva, T., Grasshof, M. & Oettingen, G. (2000). Gender Effects in Children's Beliefs about School Performance: A cross-cultural study. *Child Development*, 1, 517-527.
- Stipek, D. J. (1984). Young Children's Performance Expectations: Logical analysis or wishful thinking? In J. Nicholls (Ed.), *Advances in Motivation and A: The development of achievement motivation, Vol. 3* ( pp. 33-56). Greenwich, CT: JAI.

- Stryker, S. (1987). Identity Theory: Developments and extensions. In T. Honess & K. Yardley (Eds.), *Self and Identity: Psychosocial perspectives* (pp. 89-103). London: John Wiley.
- Tizard, B. (1974). Nature, Nurture and the IQ. *New Society*, 27, 58-73.
- Trew, K., Clark, C., McCartney, G., Barnett, J. & Muldoon, O. (2006). Adolescents, Food Choice and Vegetarianism. In J. Shepherd & M. Raats (Eds.), *The Psychology of Food Choice* (pp. 247–262). UK: CABI.
- Trowbridge, N., Trowbridge, L. & Trowbridge, L. (1972). Self-concept and Socio-economic status. *Child Study Journal*, 2(3), 123-143.
- Twenge, J. M. & Campbell, W. K. (2001). Age and Birth Cohort Differences in Self-esteem: A cross-temporal meta-analysis. *Personality and Social Psychology Review*, 5, 321-344.
- Twenge, J. M. & Campbell, W. K. (2002). Self-esteem and Socioeconomic Status: A meta-analytic review. *Personality and Social Psychology Review*, 6(1), 59-71.
- Twenge, J. M. & Nolen-Hoeksema, S. (2002). Age, Gender, Race, Socioeconomic Status and Birth Cohort Differences on the Children's Depression Inventory: A meta-analysis. *Journal of Abnormal Psychology*, 111, 578-588.
- Van Welzenis, I. (1997). The Self-concept of Societally Vulnerable and Delinquent Boys within the Context of School and Leisure Activities. *Journal of Adolescence*, 20, 695-705.
- Veselska, Z., Geckova, A., Gajdosova, B., Orosova, O., van Dijk, J. P. et al. (2010). Socioeconomic Differences in Self-esteem of Adolescents Influenced by Personality, Mental Health and Social Support. *European Journal of Public Health*, 20(6), 647-652.
- Wachs, T. D. (2000). *Necessary but Not Sufficient*. Washington, DC: American Psychological Association.
- Wieczorek-Deering, D. (1993). *A Prospective Study of Determinants of Infant-Mother Attachment Security*. (Doctoral Dissertation, November 1993, University of Dublin).

- Wieczorek-Deering, D., Greene, S. M., Nugent, J. K. & Graham, R. (1991). Classification of Attachment and its Determinants in Urban Irish Infants. *The Irish Journal of Psychology*, 12(2), 216-234.
- Wieczorek-Deering, D., Greene, S., Lonergan, E., Orr, P. & Nugent, K. (2007). *Early Patterns of Care, Infant-Mother Attachment Security and Emotional Closeness of Adolescent-Mother Dyads at 17 Years of Age*. Paper presented at the Psychological Society of Ireland, 38<sup>th</sup> Conference, Killarney, November, 2007.
- Whitbeck, L. B., Simons, R. L., Conger, R. D., Lorenz, F. O., Huck, S. & Elder, G. H. (1991). Family Economic Hardship, Parental Support and Adolescent Self-esteem. *Social Psychology Quarterly*, 54, 353-363.
- White, K. R. (1982). The Relation between Socioeconomic Status and Academic Achievement. *Psychological Bulletin*, 91(3), 461- 481.
- Wichstrom, L. (1998). Self-concept Development during Adolescence: Do American truths hold for Norwegians? In E. E. A. Skoe & A. L. Von der Lippe (Eds.), *Personality Development in Adolescence: Across national and life span perspective* (pp. 98-122). New York: Routledge.
- Wickrama, K. A. S., Conger, R. D., Lorenz, F. O. & Jung, T. (2008). Family Antecedents and Consequences of Trajectories of Depressive Symptoms from Adolescence to Young Adulthood: A life course investigation. *Journal of Health and Social behaviour*, 49, 468-483.
- Wilgenbusch, T. & Merrill, K.W. (1999). Gender Differences in Self-concept among Children and Adolescents: A meta-analysis of multidimensional studies. *School Psychology Quarterly*, 14(2), 101-120.
- Wigfield, A., Eccles, J.S., MacIver, D., Reumann, D.A. & Midgley, C. (1991). Transitions during Early Adolescence: Changes in children's domain specific self-perceptions and general self-esteem across the transition to junior high school. *Developmental Psychology*, 27, 552- 565.
- Wong, S. S., Ang, R.P. & Huan, V.S.L. (2007). Externalizing Problems, Internalizing Problems and Suicidal Ideation in Singaporean Adolescents: Sex differences. *Current Psychology*, 25(4), 231-244.
- Wylie, R.C. (1979). *The Self-concept: Theory and research on selected topics*. Vol.2. Lincoln: University of Nebraska Press.

Young, J. F. & Mroczek, D. K. (2003). Predicting Individual Self-concept Trajectories during Adolescence. *Journal of Adolescence*, 26, 586-600.

Youniss, J. & Smollar, J. (1985). *Adolescent Relations with Mothers, Fathers and Friends*. Chicago: University of Chicago Press.

Zimmerman, M. A., Copeland, L. A., Shope, J. T. & Dielman, T. E. (1996). A Longitudinal Study of Self-esteem: Implications for adolescent development. *Journal of Youth and Adolescence*, 26, 117-141.

**Websites:**

<http://www.cls.ioe.ac.uk> Accessed 13 October, 2013.

[http://www.dit.ie/researchand\\_enterprise/ethicsindit/guidelines](http://www.dit.ie/researchand_enterprise/ethicsindit/guidelines) Accessed 18 October, 2013.

<http://www.dunedinstudy.otago.ac.nz/studies/main-study/description> Accessed 13 October, 2013.

## GLOSSARY OF TERMS

**adaptation** - biological and behavioural changes that allow organisms to meet recurring environmental challenges.

**adolescence** - period of development that involves a gradual transition between childhood and emerging adulthood.

**authoritative parenting** - democratic style of child rearing in which parents set limits and provide guidance, are willing to listen to the child's ideas and make compromises.

**chronosystem** - term used by Bronfenbrenner to represent changes that take place over time in the individual or the environment and that influence development.

**cohort** - group of people who grow up experiencing many of the same historical and social conditions.

**collectivism** - cultural orientation favouring the achievement of the group over that of the individual.

**concrete operational thought** - Piagetian third stage of cognitive development characterised by the ability to apply logical processes to concrete problems.

**cross-sectional research** - research that compares groups of people who are different in age but who are similar in important ways.

**cohort-sequential research** - research that follows a group of people of different ages over time in order to distinguish differences related to age from differences related to cohort and historical period.

**culture** - set of shared values, attitudes, customs and physical objects that are maintained



by people in a specific setting as part of a blueprint for living one's daily life.

**demography** - study of populations and social statistics associated with these populations.

**developmental theory** - a systematic set of hypotheses and principles that attempts to explain development and provides a framework for future research.

**differentiation** - developmental process towards a more specialised state of being.

**distal** - term used by Bronfenbrenner to represent features beyond the immediate setting that influence stability and change in development.

**ecological approach** - a perspective on development that takes into account the various social settings in which development occurs.

**emotion** - pattern of cognitive, physiological and behavioural responses to situations and events that have relevance to important goals or motives.

**epigenetic** - biologically driven and socially guided.

**epistemology** - philosophical stance regarding the origin, nature, methods and limits of human knowledge.

**exosystem** - term used by Bronfenbrenner to describe the specific economic, political, educational and cultural institutions and practices that directly affect the microsystems and indirectly influence individual development.

**formal operational thought** - Piagetian term for the fourth stage of cognitive development characterised by hypothetical, logical and abstract thought.

**gender constancy** - understanding that being female or male is a permanent state of a person.

**gender identity** - sense of 'femaleness' or 'maleness' that is an integral part of identity.

**gender schemas** - organised mental structures that contain a person's understanding of the attributes and behaviours that are appropriate and expected for females and males.

**hegemony** - power to establish authoritative definitions of social needs.

**heuristics** - method of problem solving characterised by quick and easy search procedures or cognitive shortcuts.

**identity** - a person's self-definition as a separate individual in terms of roles, attitudes, beliefs and aspirations.

**identity achievement** - term used by Erikson and Marcia for a person knowing who she/he is as a unique individual.

**identity diffusion** - term used by Erikson and Marcia for uncertainty and confusion regarding what path to take toward identity formation.

**identity foreclosure** - term used by Erikson and Marcia meaning premature identity formation when a young person accepts parental values and goals without exploring alternative roles.

**identity moratorium** - term used by Erikson and Marcia for actively asking questions about life choices and commitments.

**identity versus role confusion** - term used by Erikson and Marcia for the psychosocial crisis of adolescence in which adolescents must determine who they are, combining their self-understanding and social roles into a coherent identity.

**individualism** - cultural orientation favouring the achievement of individual over group goals, characteristic of many western nations, in contrast to collectivism.

**individuation** - process involving increased self-understanding and self-definition.

**introject** - an evaluation taken from the outside world and symbolised as defining a

dimension of the self.

**longitudinal research** - research that follows the same people over time in order to measure both change and stability with age.

**macrosystem** - term used by Bronfenbrenner to describe the overarching traditions, beliefs and values of a society that indirectly influence a person's development.

**mesosystem** - term used by Bronfenbrenner to describe the interactions between various microsystems and their influence on development.

**meta-analysis** - statistical procedure for combining the results of different studies that examine the same topic.

**microsystem** - term used by Bronfenbrenner to describe the immediate social setting that surrounds and shapes an individual's development.

**moratorium** - term used by Erikson and Marcia for a pause in identity formation that allows young people to explore alternatives without making final choices.

**normative** - usual or average standard for a particular behaviour.

**peer group** - group of individuals of roughly the same age and social status who play, work or learn together.

**peer pressure** - social pressure to conform to one's friends or contemporaries in behaviour, dress and attitude.

**phenomenology** - philosophical approach that focuses on immediate, subjective experience.

**positivist** - focusing on objective, scientific measurement.

**post-modernity** - relating to the fragmentation of knowledge into locally valid constructions.

**post-positivist** - allowing for some hermeneutic interpretation rather than focusing only on objective, scientific measurement.

**proximal** - term used by Bronfenbrenner to represent features within the immediate setting that influence stability and change in development.

**psychodynamic perspective** - psychological perspective that focuses on the way personality processes, including unconscious impulses, defences and conflicts, influence behaviour.

**psychosocial domain** - includes emotions, personality characteristics and relationships with other people.

**psychosocial stages** - Erikson's sequence of eight developmental stages, each of which involves a different crisis or conflict over how persons view themselves in relation to other people and the world around them.

**psychosocial theory** - theory that stresses the interaction between internal psychological forces and external social influences.

**schema** - mental framework or organised pattern of thought about some aspect of the world such as a class of people, events, situations or objects.

**self-awareness** - person's sense of herself or himself as a being distinct from others and having particular characteristics.

**self-concept** - fundamental organising code that filters and mediates thoughts, feelings and behaviour.

**social-comparison** - tendency to assess one's abilities, achievements, social status and other attributes by measuring them against those of others, especially one's peers.

**social-construction** - an idea about the way things are or should be that is built more on

the shared perceptions of members of a society than on objective reality.

**sociocultural perspective** - a view that emphasises the role of culture and the social environment in understanding commonalities and differences in human behaviour.

**sociocultural theory** - a theory that seeks to explain the growth of individual knowledge and competencies in terms of the guidance, support and structure provided by the broader cultural context.

**socioeconomic status (SES)** - an indicator of social class that is based primarily on income, education and occupation.

**suicide ideation** - extensive or obsessive thinking about committing suicide.

**triangulation** - use of multiple, independent methods of obtaining data in a single investigation.

**vulnerability factors** - situational or physical factors that increase susceptibility to the negative impact of stressful events.

APPENDIX 1

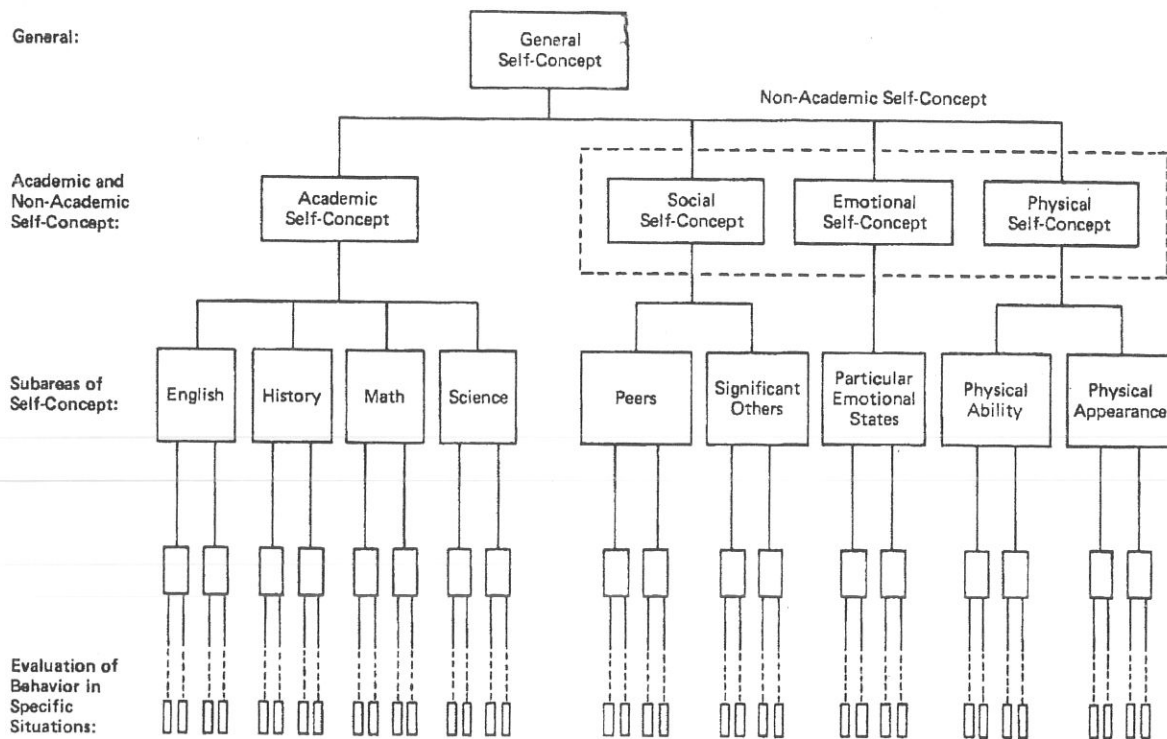


Figure 1  
 One possible representation of the hierarchic organization of self-concept.

- 1. My classmates make fun of me. .... yes no
- 2. I am a happy person. .... yes no
- 3. It is hard for me to make friends. .... yes no
- 4. I am often sad. .... yes no
- 5. I am smart. .... yes no
- 6. I am shy. .... yes no
- 7. I get nervous when the teacher calls on me. .... yes no
- 8. My looks bother me. .... yes no
- 9. I am a leader in games and sports. .... yes no
- 10. I get worried when we have tests in school. .... yes no
- 11. I am unpopular. .... yes no
- 12. I am well behaved in school. .... yes no
- 13. It is usually my fault when something goes wrong. .... yes no
- 14. I cause trouble to my family. .... yes no
- 15. I am strong. .... yes no
- 16. I am an important member of my family. .... yes no
- 17. I give up easily. .... yes no
- 18. I am good in my schoolwork. .... yes no
- 19. I do many bad things. .... yes no
- 20. I behave badly at home. .... yes no
- 21. I am slow in finishing my schoolwork. .... yes no
- 22. I am an important member of my class. .... yes no
- 23. I am nervous. .... yes no
- 24. I can give a good report in front of the class. .... yes no
- 25. In school I am a dreamer. .... yes no
- 26. My friends like my ideas. .... yes no
- 27. I often get into trouble. .... yes no
- 28. I am lucky. .... yes no
- 29. I worry a lot. .... yes no
- 30. My parents expect too much of me. .... yes no
- 31. I like being the way I am. .... yes no

# The Way I Feel About Myself

## PIERS-HARRIS 2

### AutoScore™ Form

by Ellen V. Piers, Ph.D., Dale B. Harris, Ph.D., & David S. Herzberg, Ph.D.

Published by  
**WESTERN PSYCHOLOGICAL SERVICES**  
**wps** 12031 Wilshire Boulevard  
Los Angeles, CA 90025-1251  
Publishers and Distributors

Client's Name (or ID #): \_\_\_\_\_

Today's Date: \_\_\_\_\_ Age: \_\_\_\_\_

Gender: (circle one) Female Male Grade: \_\_\_\_\_

School: \_\_\_\_\_

Teacher's Name (optional): \_\_\_\_\_

Race/Ethnicity:  Asian  Hispanic  White  
 Black  Native American  Other

### Directions

Here are some sentences that tell how some people feel about themselves. Read each sentence and decide whether it tells the way you feel about yourself. If it is *true* or *mostly true* for you, circle the word *yes* next to the statement. If it is *false* or *mostly false* for you, circle the word *no*. Answer every question, even if some are hard to decide. Do not circle both *yes* and *no* for the same sentence. If you want to change your answer, cross it out with an X and circle your new answer.

Remember that there are no right or wrong answers. Only you can tell us how you feel about yourself, so we hope you will mark each sentence the way you really feel inside.

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W-388A

32. I feel left out of things. .... yes no
33. I have nice hair. .... yes no
34. I often volunteer in school. .... yes no
35. I wish I were different. .... yes no
36. I hate school. .... yes no
37. I am among the last to be chosen for games and sports. .... yes no
38. I am often mean to other people. .... yes no
39. My classmates in school think I have good ideas. .... yes no
40. I am unhappy. .... yes no
41. I have many friends. .... yes no
42. I am cheerful. .... yes no
43. I am dumb about most things. .... yes no
44. I am good-looking. .... yes no
45. I get into a lot of fights. .... yes no
46. I am popular with boys. .... yes no
47. People pick on me. .... yes no
48. My family is disappointed in me. .... yes no
49. I have a pleasant face. .... yes no
50. When I grow up, I will be an important person. .... yes no
51. In games and sports, I watch instead of play. .... yes no
52. I forget what I learn. .... yes no
53. I am easy to get along with. .... yes no
54. I am popular with girls. .... yes no
55. I am a good reader. .... yes no
56. I am often afraid. .... yes no
57. I am different from other people. .... yes no
58. I think bad thoughts. .... yes no
59. I cry easily. .... yes no
60. I am a good person. .... yes no



**SCORING WORKSHEET (ITEMS 1-31)**

**Inconsistent Responding Index**

Check box if:

Item 1 = 0 and Item 47 = 1

Item 2 = 0 and Item 42 = 1

Item 3 = 1 and Item 41 = 0

Item 4 = 1 and Item 40 = 0

Item 5 = 0 and Item 43 = 1

Item 7 = 0 and Item 10 = 1

Item 9 = 1 and Item 51 = 0

Item 14 = 1 and Item 20 = 0

Item 18 = 0 and Item 21 = 1

Item 19 = 0 and Item 27 = 1

Item 26 = 0 and Item 39 = 1

Item 29 = 1 and Item 56 = 0

Item 31 = 0 and Item 35 = 1

Domain Scales

Item	No	Yes	BEH	INT	PHY	FRE	POP	HAP
1.	1	0					<input type="checkbox"/>	
2.	0	1						<input type="checkbox"/>
3.	1	0					<input type="checkbox"/>	
4.	1	0				<input type="checkbox"/>		
5.	0	1		<input type="checkbox"/>	<input type="checkbox"/>			
6.	1	0				<input type="checkbox"/>	<input type="checkbox"/>	
7.	1	0		<input type="checkbox"/>		<input type="checkbox"/>		
8.	1	0			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
9.	0	1			<input type="checkbox"/>			
10.	1	0				<input type="checkbox"/>		
11.	1	0					<input type="checkbox"/>	
12.	0	1	<input type="checkbox"/>	<input type="checkbox"/>				
13.	1	0	<input type="checkbox"/>					
14.	1	0	<input type="checkbox"/>					
15.	0	1			<input type="checkbox"/>			
16.	0	1		<input type="checkbox"/>				
17.	1	0				<input type="checkbox"/>		
18.	0	1	<input type="checkbox"/>	<input type="checkbox"/>				
19.	1	0	<input type="checkbox"/>					
20.	1	0	<input type="checkbox"/>					
21.	1	0		<input type="checkbox"/>				
22.	0	1		<input type="checkbox"/>				
23.	1	0				<input type="checkbox"/>		
24.	0	1		<input type="checkbox"/>				
25.	1	0		<input type="checkbox"/>				
26.	0	1		<input type="checkbox"/>	<input type="checkbox"/>			
27.	1	0	<input type="checkbox"/>					
28.	0	1						<input type="checkbox"/>
29.	1	0				<input type="checkbox"/>		
30.	1	0	<input type="checkbox"/>					
31.	0	1				<input type="checkbox"/>		<input type="checkbox"/>

**SCORING WORKSHEET (ITEMS 32-60)**

**Inconsistent Responding Index**  
Check box if:

Domain Scales

Item	No	Yes	BEH	INT	PHY	FRE	POP	HAP
32.	1	0				<input type="checkbox"/>	<input type="checkbox"/>	
33.	0	1			<input type="checkbox"/>			
34.	0	1		<input type="checkbox"/>				
35.	1	0				<input type="checkbox"/>		<input type="checkbox"/>
36.	1	0	<input type="checkbox"/>					
37.	1	0					<input type="checkbox"/>	
38.	1	0	<input type="checkbox"/>					
39.	0	1		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	
40.	1	0				<input type="checkbox"/>		<input type="checkbox"/>
41.	0	1					<input type="checkbox"/>	
42.	0	1						<input type="checkbox"/>
43.	1	0		<input type="checkbox"/>				
44.	0	1			<input type="checkbox"/>			
45.	1	0	<input type="checkbox"/>					
46.	0	1			<input type="checkbox"/>			
47.	1	0					<input type="checkbox"/>	
48.	1	0	<input type="checkbox"/>					
49.	0	1			<input type="checkbox"/>			<input type="checkbox"/>
50.	0	1		<input type="checkbox"/>				
51.	1	0					<input type="checkbox"/>	
52.	1	0		<input type="checkbox"/>				
53.	0	1						<input type="checkbox"/>
54.	0	1			<input type="checkbox"/>		<input type="checkbox"/>	
55.	0	1		<input type="checkbox"/>				
56.	1	0				<input type="checkbox"/>		
57.	1	0					<input type="checkbox"/>	
58.	1	0	<input type="checkbox"/>					
59.	1	0				<input type="checkbox"/>		
60.	0	1	<input type="checkbox"/>					<input type="checkbox"/>
Sum of "Yes" answers			<input type="checkbox"/>					
RES			BEH	INT	PHY	FRE	POP	HAP
Sum of "1" answers								
TOT								

Item 44 = 1 and Item 49 = 0

Item 53 = 1 and Item 60 = 0

INC

# PIERS-HARRIS 2

Ellen V. Piers, Ph.D., Dale B. Harris, Ph.D., & David S. Herzberg, Ph.D.

## PROFILE SHEET

Name (or ID#): \_\_\_\_\_  
 Age: \_\_\_\_\_ Gender:  Male  Female

%ile	T	INC	RES	TOT	BEH	INT	PHY	FRE	POP	HAP	T	%ile
>99	≥80	≥7	≥52								≥80	>99
	79	6	51								79	
	78		50	60							78	
	77		48-49								77	
	76		46-47								76	
	75	5	45								75	
>99	74		44								74	>99
99	73		43								73	99
	72		42	59							72	
98	71		41								71	98
	70	4	40								70	
97	69		39	58					12		69	97
96	68		38								68	96
	67										67	
95	66		37	57							66	95
93	65	3				16	11	14			65	93
92	64		36								64	92
90	63		35	56							63	90
88	62				14						62	88
86	61		34	55							61	86
84	60	2	33	54					11		60	84
82	59					15				10	59	82
79	58		32	53			10	13			58	79
76	57										57	76
73	56		31	52							56	73
69	55			51							55	69
66	54		30		13	14		12	10		54	66
62	53	1		50							53	62
58	52		29	49			9				52	58
54	51			48		13		11		9	51	54
50	50		28	47					9		50	50
46	49			46	12						49	46
42	48		27	44-45		12	8	10			48	42
38	47			43					8	8	47	38
34	46		26	42	11	11		9			46	34
31	45			41			7				45	31
27	44			39-40		10			7		44	27
24	43	0	25	38	10			8		7	43	24
21	42			37		9	6				42	21
18	41			36	9			7	6		41	18
16	40		24	34-35		8	5			6	40	16
14	39			33	8			6	5		39	14
12	38		23	31-32		7	4				38	12
10	37			30	7			5		5	37	10
8	36			28-29		6			4		36	8
7	35		22	27	6		3	4		4	35	7
5	34			26		5					34	5
	33		21	24-25	5			3	3	3	33	
4	32		20	22-23		4	2				32	4
3	31		19	21	4			2	2		31	3
	30			19-20							30	
2	29		<18	17-18	3	3	1		1		29	2
	28			16	2			1			28	
1	27			15		2				1	27	1
<1	26			≤14	1						26	<1
	25										25	
	24					1			0		24	
	23						0			0	23	
	22				0			0			22	
	21										21	
<1	≤20					0					≤20	<1

%ile	T	INC	RES	TOT	BEH	INT	PHY	FRE	POP	HAP	T	%ile
Raw Score												
T-Score												
Validity Scales						Self-Concept Scales						

Published by  
**wps** WESTERN PSYCHOLOGICAL SERVICES  
 12031 Wilshire Blvd., Los Angeles, CA 90025-1251  
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## SCORING INSTRUCTIONS

### 1. Calculate the Validity Scores

To determine the Inconsistent Responding (INC) index raw score, review the 15 INC item pairs listed in the left column of the Scoring Worksheet. Make a check mark in the box next to each pair for which the inconsistency conditions are met. For example, for the first INC pair listed, you mark the box *only if* Item 1 is scored "0" and Item 47 is scored "1." Count the number of check marks in these boxes, and enter the total in the space labeled *INC* at the bottom of the Scoring Worksheet. To calculate the Response Bias (RES) index raw score, count the number of circles that appear in the "Yes" column. Enter this number in the space labeled *RES* at the bottom of the Scoring Worksheet.

### 2. Calculate the Self-Concept Scores

The Self-Concept raw scores include the Piers-Harris 2 Total (TOT) score and the six domain scale scores: Behavioral Adjustment (BEH), Intellectual and School Status (INT), Physical Appearance and Attributes (PHY), Freedom From Anxiety (FRE), Popularity (POP), and Happiness and Satisfaction (HAP). To obtain the raw TOT score, count the number of items for which "1" is circled on the Scoring Worksheet. Enter this number in the space labeled *TOT* at the bottom of the Scoring Worksheet. To determine the raw scores for the six domain scales, locate each item for which a "1" has been circled and make a check mark in the box(es) in the same row as that item. Then count the number of check marks you have made in the columns that correspond to each domain scale. Enter these totals in the appropriate spaces at the bottom of the Scoring Worksheet. **Note:** Do not calculate the TOT score by summing the raw scores from the six domain scales. Because some items appear on more than one scale, the TOT raw score is not equivalent to the sum of the domain scale raw scores.

### 3. Complete the Piers-Harris 2 Profile Sheet

Transfer the Validity and Self-Concept raw scores from the Scoring Worksheet to the corresponding spaces at the bottom of the Profile Sheet. Circle the value in each column that corresponds to the raw score you have entered at the bottom. Then connect the circled scores to plot the profile. The *T*-score and percentile rank for each raw score can be found along the left and right margins of the Profile Sheet. Enter the *T*-scores for the Validity and Self-Concept scales in the appropriate spaces at the bottom of the Profile Sheet. Please refer to chapter 3 of the *Piers-Harris 2 Manual* for complete instructions on how to interpret the scores.

### **APPENDIX 3**

Listed below are interview questions asked of adolescents and mothers. Responses to these questions were correlated with T2 adolescent scores on the self-concept sub-domains to assess the robustness of the self-concept data.

#### **Behavioural Adjustment**

**Adolescents** were asked the following questions:

*How frequently were you in trouble at school?*

*How frequently did you break parental rules?*

*How frequently did you use soft/hard drugs?*

**Mothers** were asked the following questions:

*How easy was your child to parent?*

*How frequently did your child ignore parental guidelines?*

#### **Intellectual and School Status**

**Adolescents** were asked the following questions:

*How well did you get on in the Junior Certificate exam?*

*How pleased were you with your Junior Certificate results?*

*How much do you enjoy school?*

**Mothers** were asked the following questions:

*How much do you encourage your child to do well at school?*

*How important it is for you that your child does well at school?*

#### **Physical Appearance and Attributes**

No interview questions related to this sub-domain.

#### **Freedom from Anxiety**

**Adolescents** were asked the following questions:

*Is emotional support available to you when you need it?*

*How well do you get on with your mother?*

*How well do you get on with your father?*

*How often is there conflict between you and your mother?*

*How often is there conflict between you and your father?*

**Mothers** were asked the following questions?

*How often is there conflict between you and your child?*

*How would you describe the quality of your relationship with your child?*

#### **Popularity**

**Adolescents** were asked the following questions:

*Do you have lots of friends?*

*How many of these are close friends?*

#### **Happiness and Satisfaction**

**Adolescents** were asked the following questions:

*How much do you enjoy school?*

*Are you working part-time?*

*Is Ireland a good place in which to grow up?*

**APPENDIX 4**

Validation of Self-concept Variables against Interview Responses for the Group – Significant findings highlighted in bold.

Variable		N	Behav. Adj		Int Sch Status		Physical App		Freed. from Anx.		Popularity		Happ & Sat.	
			Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Trouble at School	Yes	10	<b>46.20</b>	8.52	45.10	6.56	50.30	9.43	48.70	10.71	56.70	6.075	47.50	8.985
	No	61	<b>53.57</b>	8.93	49.92	7.67	49.62	7.82	48.36	9.23	52.46	9.115	50.16	7.898
Frequency Breaks Rules	Yes	13	<b>49.08</b>	11.80	47.00	6.56	52.08	7.12	55.38	8.78	56.23	7.563	51.92	5.454
	No	58	<b>53.31</b>	8.42	49.74	7.86	49.19	8.14	46.84	8.83	52.34	9.008	49.31	8.482
Concerns about School	Yes	38	50.18	9.30	47.66	7.36	48.00	8.01	<b>46.00</b>	9.23	52.61	8.484	47.32	8.706
	No	33	55.24	8.40	51.06	7.71	51.70	7.62	<b>51.18</b>	8.86	53.58	9.341	52.64	6.189
Relationship With Mother	No	3	48.33	12.66	44.00	3.46	40.00	5.00	<b>35.33</b>	5.86	56.00	3.464	39.67	6.429
	Yes	68	52.72	9.08	49.47	7.73	50.15	7.85	<b>48.99</b>	9.09	52.93	8.995	50.24	7.848
Lots of Friends	No	8	50.12	8.44	46.25	6.61	47.88	11.94	47.00	10.12	<b>42.88</b>	12.32	45.25	10.67
	Yes	64	52.98	9.29	49.64	7.69	49.77	7.54	48.67	9.23	<b>54.06</b>	<b>7.77</b>	50.31	7.52

## APPENDIX 5

### **T2 Self-concept Mean Scores compared with Piers Harris 2 Scores for the Standardisation Sample for 17 year olds.**

The normal range is considered to be between 40T and 59T for Total Self-concept and 40T and 55T for the sub-domains.

Females: BEH - DCDS females higher by 3T  
PHY - DCDS females lower by 3T  
FRE - DCDS females lower by 3T  
POP - DCDS females higher by 2T  
HAP - DCDS females lower by 3T  
All other domains within 1T.

Males: TOT - DCDS males higher by 2T  
BEH - DCDS males higher by 4T  
PHY - DCDS males higher by 2T  
POP - DCDS males higher by 4T  
HAP - DCDS males higher by 4T  
All other domains within 1T.

Total: BEH - DCDS adolescents higher by 3T  
POP - DCDS adolescents higher by 4T  
All other domains within 1T.

**APPENDIX 6**

**Comparison between GUI self-concept scores for 9 year olds, T1 scores and Piers Harris Norms**

	<u>GUI</u>		<u>T1 Data</u>		<u>PH normal range 40T and 55T</u>
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Within PH normal range</i>
Beh Adj	48	51	48	53	”
Int/Sch	49	50	50	52	”
Phys	50	50	47	48	”
Free Anx	51	48	52	52	”
Pop	49	49	48	53	”
Happ Sat	48	50	50	53	”