
Doctorate in Clinical Psychology
Volume 1

This volume is available for **reference only** in the UCL Library only to UCL staff, students and alumni.

No photocopying of any part of this volume is allowed.

UCL Registrar's Division
October 2001

**THE ROLE OF PRIMARY SCHOOL CHILDREN'S SCHEMAS IN
PREDICTING THEIR REACTION TO SECONDARY SCHOOL
TRANSITION.**

EMMA TAYLOR

D.Clin Psy. 2000

University College London

Volume 1

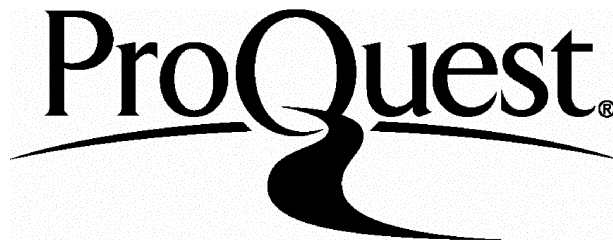
ProQuest Number: U644222

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



ProQuest U644222

Published by ProQuest LLC(2016). Copyright of the Dissertation is held by the Author.

All rights reserved.

This work is protected against unauthorized copying under Title 17, United States Code.
Microform Edition © ProQuest LLC.

ProQuest LLC
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106-1346

ABSTRACT

This study examines the impact of children's mental representations of peer relationships, or relational schemas, upon secondary school transition. Research has shown that children's schemas are related to both internalising and externalising problems (Crick & Dodge, 1994; Rudolph, Hammen & Burge, 1997). However, little research explores the causality of the relationship between children's schemas and mood. Secondary school transition is problematic for children, leading to short term reductions in self esteem (e.g. Wigfield et al., 1991), but little yet is known about the psychological characteristics that affect this adjustment process. This prospective study added to the research literature by examining whether peer schema assessed in primary school either mediated or moderated future emotional and behavioural difficulties experienced in secondary school. Forty four children were assessed in their last term of primary school, and twice in their first term of one inner city secondary school. Primary and secondary school teachers provided ratings of classroom behaviour and emotional well being, and standardised measures of academic achievement were obtained from schools. There was no evidence of children's problems increasing after transition to secondary school. There was no evidence for schema mediating or moderating emotional and behavioural difficulties. The results are discussed in relation to literatures concerning schemas, coping and secondary school transition.

ACKNOWLEDGEMENTS

This research thesis would not have been possible without the help of the children, teachers and Head teachers of Islington Local Education Authority. My thanks go to all those teachers who diligently helped to collect consent forms and allowed me to see children in classroom time. The children were great in filling in forms that were definitely found boring by the third assessment. I am very grateful to my research supervisors, Dr Peter Fuggle and Dr Chris Barker, who have always been prompt with help and feedback. Both have contributed useful amendments to the thesis.

The clinical thesis was only made possible with the help of clients, and my thanks go to them for teaching me so much. I would also like to thank those who supervised the cases I report: Elan Hoffman, Judy Wall, Henrik Lynggaard and Dr Wendy Casey.

All my clinical training has been reliant on the support of some very important people. First and foremost, I would like to thank Steve, my husband, for providing sympathy, child-care, practical help with computing, editing, patience and love. I could not have done it without him. I would also like to thank Joseph, for being so good, and for being such a lovely boy. Thanks to the bump for not arriving too soon! We could not have survived without Mary Seacole Nursery and their staff. I would like to thank Bob and June for being so supportive and in particular for looking after Joe when sick, and my parents for their support and alternative telephone supervision. I would also like to thank Dr Tony Roth for being an understanding manager, and allowing me irreplaceable time with my son.

CONTENTS

	Page
CHAPTER 1: INTRODUCTION	1
1.1 Introduction	1
1.2 Definitions of schema	1
1.2.1 Psychoanalytic object relations tradition	2
1.2.2 Cognitive models	6
1.2.3 Social cognition	12
1.2.4 Integrationist approaches	15
1.2.5 Critique of schema concept	17
1.3 Research on schemas in children	20
1.3.1 Psycho-analytic research	21
1.3.2 Information processing research	23
1.3.2.1 Comparisons between children of depressed and non-depressed mothers	23
1.3.2.2 Comparisons between distressed and non-distressed children	25
1.3.3 Questionnaire research	27
1.3.4 Experimental research	28
1.3.5 Summary and critique of children schema research	30
1.4 School transition	35
1.5 The current study's rationale and research hypotheses	40

	Page
CHAPTER 2: METHOD	44
2.1 Design	44
2.2 Procedure	44
2.3 School characteristics	47
2.4 Sample	49
2.5 Measures	50
2.5.1 Perceptions of peers and self questionnaire (POPS)	51
2.5.2 Children’s expectations of social behaviour questionnaire (CESBQ)	52
2.5.3 Strengths and difficulties questionnaire (SDQ)	53
2.5.4 How I coped under pressure scale (HICUPS)	56
2.5.5 Adjustment to school	58
 CHAPTER 3: RESULTS	 60
3.1 Preliminary analysis	60
3.2 Concordance between children and teacher ratings	61
3.3 Outcome of transition	63
3.3.1 Stability in children’s self-reported strengths and difficulties	63
3.3.2 Change in children’s self-reported strengths and difficulties	65
3.3.3 Stability and change in teachers’ reported strengths and difficulties	72
3.4 Mediator models of schema	75
3.4.1 Hierarchical regressions testing for mediators of total difficulties at assessment 2	77

3.4.2	Hierarchical regressions testing for mediators of total difficulties at assessment 3	78
3.4.3	Hierarchical regressions testing for mediators of classroom adjustment at assessment 3	83
3.5	Moderator models of schema	86
3.5.1	Hierarchical regressions testing for moderating effects on total difficulties at assessment 2	88
3.5.2	Hierarchical regressions testing for moderating effects on total difficulties at assessment 3	91
3.5.3	Hierarchical regressions testing for moderating effects on classroom adjustment at assessment 3	94
3.6	Correlations between schemas and change scores	98
CHAPTER 4: DISCUSSION		100
4.1	Secondary school transition	100
4.1.1	Prevalence of difficulties in primary and secondary school	100
4.1.2	Impact of secondary school transition	102
4.1.3	Academic ability as moderator of transition impact	106
4.1.4	Academic ability and children's difficulties and classroom adjustment	107
4.2	Impact of schema	110
4.3	Impact of coping	115
4.4	Methodological critique of the study	119
4.5	Service implications	124
4.6	General summary	127

REFERENCES	130
APPENDIX 1: Ethical approval	141
APPENDIX 2: Information for head teachers	142
APPENDIX 3: Parental information and consent form	144
APPENDIX 4: Children's information and consent form	147
APPENDIX 5: Assessment batteries	149

LIST OF TABLES

Table	Page
2.1 Measures employed at each assessment	45
2.2 Cronbach alphas for sub-scales of the SDQ	55
3.1 Correlations between children's and teacher's ratings of emotional difficulties and conduct problems	62
3.2 Correlations between children's self-reported strengths and difficulties	64
3.3 Children's self-reported strengths and difficulties in primary school and secondary school	66
3.4 ANOVAs on sub-scales of the strengths and difficulties questionnaire	71
3.5 Means and standard deviations of teacher ratings of difficulties and classroom adjustment at assessment 1 and 2	73
3.6 Number and percent of children rated by teachers as scoring above psychiatric case threshold on the sub-scales of the SDQ	73
3.7 Hierarchical regressions testing the mediating impact of schemas on total difficulties at assessment 2	79
3.8 Hierarchical regressions testing the mediating impact of schemas on total difficulties at assessment 3	81
3.9 Hierarchical regressions testing the mediating impact of schemas on classroom adjustment at assessment 3	84
3.10 Correlations between schemas, coping sub-scales and total difficulties at assessments 2 and 3	87

3.11	Hierarchical regressions testing the moderating impact of schemas on total difficulties at assessment 2	89
3.12	Hierarchical regressions testing the moderating impact of schemas on total difficulties at assessment 3	92
3.13	Hierarchical regressions testing the moderating impact of schemas on classroom adjustment at assessment 3	84
3.14	Correlations between schemas and coping measures with change scores	99

LIST OF FIGURES

Figure	Page
1.1 Diagrams of schema triggered affect model	43
1.2 Diagram of behavioural priming model of schema	43
3.1 Mean total difficulties according to whether children were or were not on school's register of Special Educational Need	69
3.2 Diagram of possible mediating pathways between schemas and total difficulties	76

CHAPTER 1: INTRODUCTION

1.1: Introduction

Transition to secondary school is a major event of early adolescence, involving adaptation to new peer and teacher networks. Therefore, it might be expected that children's expectations of and beliefs about peer relationships, or schema, would affect their adjustment to secondary school. Research indicates that schemas are related to children's well-being and social adjustment, but little research explores the precise pathways between schemas and children's mental health problems. Neither is there much work on how schemas interact with real life events, like secondary school transition, to produce symptoms. The current study was primarily designed to address these gaps in research, by examining whether or not peer schemas measured in primary school affect children's emotional and behavioural difficulties in secondary school. The study also builds on the literature on secondary school transfer, which has largely neglected the study of children's psychological characteristics.

This chapter introduces the thesis by reviewing definitions of schemas and offering a critique of this theoretical literature. The empirical literature on schemas in childhood and adolescence is then reviewed, and a rationale for the current study presented. Finally, literature on secondary school transition is discussed.

1.2 Definitions of schemas

Different theoretical traditions, and individual theories within these, offer different conceptualisations of schemas. For instance, within the psychoanalytic object relationship tradition alone, Knapp (1991) cites 20 definitions of self-other schema.

It is therefore beyond the scope of this thesis to offer a detailed review of the schema concept. Instead, I review key theories of schema under three broad traditions: object relations, clinical cognitive and social cognition, and discuss theoretical attempts to integrate these. They all share an interest in the way mental representations of the self and other people are constructed, and in the cognitive, affective and behavioural processes linked to these representations (Westen, 1991). Whilst these traditions have separate identities, their division in this paper is forced, since authors draw on traditions other than their own in formulating their ideas (eg. Baldwin, 1992; Horowitz, 1991; Main, Kaplan & Cassidy, 1985).

1.2.1 Psychoanalytic object relations tradition

This tradition encompasses the work of Melanie Klein, Douglas Fairbairn, Donald Winnicott and John Bowlby amongst others. Broadly, object relations theories emphasise our basic need for relationships, and are concerned with the mental representations of significant others and their critical impact on relationships and psychopathology (Bateman & Holmes, 1995; Westen, 1991).

According to attachment theory (Bowlby, 1969; 1973), internal working models of early infant-parent relationships are vital to interpersonal functioning. Working models of attachment contain “Expectations of the accessibility and responsiveness of attachment figures” (p.238, Bowlby, 1973), and a complementary representation of the self as worthy or unworthy of care. These derive from recurrent interactions with early caregivers, typically the mother, and develop throughout life.

Working models are used to organise emotion and goal directed behaviour, and to predict other people's behaviours. They guide attention and storage of material in a self-confirmatory manner, and early developed models tend to operate outside conscious awareness and are resistant to major change (Bowlby, 1969). Bowlby (1979) states the individual "Tends to assimilate any new person with whom he may form a bond, such as spouse, or child, or employer or therapist, to an existing model (either one of parent or of self) and to continue to do so despite repeated evidence that the model is inappropriate" (pp.141-142). Psychopathology and interpersonal problems arise from such inaccurate or limited working models.

Main et al., (1985) draw parallels between working models and schemas. According to Main et al., (1985) working models are generalised representations of infant-parent interactions "Organised schematically rather than categorically, that is by actions and action outcomes" (p.75). These underlie differences in attachment behaviours. For example, infants whose caregiver welcomes the child's proximity seeking will have a working model of accessible attachment figures. This leads to a secure attachment style, seeking comfort and proximity with their caretaker after separation. Infants whose caretaker typically blocks their child's efforts at obtaining comfort may have a working model of unavailable attachment figures, and subsequently an insecure-avoidant attachment style, avoiding or ignoring their caretaker on reunion after separation. Because working models have their roots in early emotional exchanges, they include affect which accompanies the activation of a model (Main et al., 1985). Main et al., (1985) describe stability within these models, whose rules encourage self perpetuation with "Each internally or externally

originating signal that is potentially disruptive to the systemactively countered by perceptual and behavioural control mechanisms” (p.94).

Recent developments within attachment theory suggest that working models become abstract images of self as worthy or unworthy and other as trustworthy or untrustworthy. By severing the connection between working models and specific attachment related events, this very general conceptualisation may not predict interpersonal behaviour or emotions across childhood disorders or interpersonal situations (Shirk, 1988).

In contrast, Horowitz (1991) emphasises the complexity of multiple schema of self and others co-existing and interacting within the self. Horowitz (1991) defines schemas as structures of meaning that summarise past interpersonal experiences, including roles, characteristics, traits and values of self and other, and which also contain affect. Role Relationship Models are combinations of a self-schema, a schema for at least one other person and a script of transactions between them.

According to Horowitz (1991), schemas influence information processing, by measuring and re-organising new information until there is a goodness of fit with the pre-existing schema. This enables rapid perception and expectations of what might happen, but can lead to errors in perception, interpretation and action in interpersonal situations. In a rather circular conceptualisation, schemas are influenced by unconscious processes in that defence mechanisms select a dominant schema to minimise emotional pain in any one situation and, after repeated use, defences become part of the schema itself. Like attachment theorists, as a result of

these information and defensive processes, Horowitz claims that schemas tend to self perpetuate.

According to Horowitz (1991), in addition to containing affect, schemas influence mood in several ways. They can lead to maladaptive behaviours and hence disturbed mood. Disturbed mood can also be caused by a mismatch between an enduring schema and perception of the immediate situation (or working model). For example, in bereavement a perception of self in relation to an absent parent can conflict with a schema of available parent needed by self, resulting in grief. Extreme contradictions between co-existing self-schema explain the clinical observation of people experiencing themselves very differently over time and state.

In contrast to attachment theory which equates secure attachment style with psychological and interpersonal functioning, Horowitz considers a wide repertoire of enduring and flexible person schemas to be indicative of maturity, and by implication psychological well-being.

These examples illustrate the diversity of conceptualisations within object relations tradition. They differ in terminology; in whether or not schemas are generalised across relationships; in their explanation of the relationship between schemas and emotion; and in their view of how schemas are related to psychological problems.

However, there are commonalities shared by object relations theories (Knapp, 1991). They all describe schemas as encompassing recurrent themes of self in relationship to other, and vice versa; as influencing information processing; as containing and

organising affect; as being stable whilst open to change; as being self-perpetuating and as developing from early infant-caretaker interactions (cf. Knapp, 1991).

1.2.2 Cognitive models

Schema as a concept has a long history within developmental and mainstream information processing/computational models of cognition (eg. Piaget, 1973; Bartlett 1932). Given that the main focus of this thesis is the link between schema and psychological well-being, I review only cognitive theories that use schema in explaining the role of cognition in psychopathology.

In his seminal work on depression, Beck (1967) refers to schema concerned with self. He defined schema as “A structure for screening, coding and evaluating the stimuli that impinge on the organism...It is the mode by which the environment is broken down and organized into its many psychologically relevant facets. On the basis of schemas, the individual is able to ... categorise and interpret his experiences in a meaningful way” (p. 283). Schemas operate as rules beyond awareness which govern information processing and behaviour.

Beck suggested that dysfunctional schemas underlie problems in understanding other people and emotional disorders. These are absolute, unrealistic, inflexible or over-applied schema. Dysfunctional schemas incorporate both core beliefs like “I’m no good” and conditional beliefs like “If I make a mistake, I may antagonise my boss and he will fire me” (Beck 1967, 1976 and Beck, Freeman, Pretzer et al.,1990). Schemas give rise to automatic thoughts, which arise almost by reflex in any given situation, and which give rise to painful emotions like depression or anxiety. For

instance, in anxiety, schemas are concerned with danger to the self, and can incorporate beliefs like “If I drive, I am likely to crash”, which when triggered in perceived threatening situations like car travel can lead to automatic thoughts such as “I’m going to die”.

According to Beck’s theory, self-schema develop in early childhood, and are self maintaining, despite contradictory evidence, through the process of distorting, not noticing and discounting contradictory information (Beck et al., 1990). Thus, someone with a self-schema “I am bad” will focus on self defects and remember these more than their skills and successes, maintaining a view of themselves as bad.

Beck (1996) criticised this linear model of schemas for not explaining a number of phenomena, including the fact that cognitive, physiological and affective systems act in harmony and in ways specific to each emotional disorder and personality. In a revised theory, Beck (1996) suggested that schemas do not operate in linear fashion from beliefs to thoughts to affect, but involve parallel, global processing of information.

Beck (1996) described orienting schema that scan the environment for matches for a particular meaning eg. danger. These incorporate conditional rules of the “if.. then” variety eg. if I mix with others, then I will be rejected, which stem from core beliefs such as “I am worthless” . Each orienting schema is attached to a relevant mode, and if a threshold for a match is achieved, the schemas activate their mode. Modes consist of cognitive, affective, and motivational-behavioural schema which when activated set in motion a predictable train of cognitive, affective and behavioural

events. For example, a dog phobic patient might have within his danger-orienting schema the rule “if a dog is near, then I will be attacked”. In the presence of a dog, this schema activates its associated mode; the affective schema generates anxiety, the motivational-behavioural schema generates an impulse to escape, the physiological system leads to increased heart rate and the cognitive system generates negative automatic thoughts like “I’m going to die”. Thus modes produce a synchronised response to demands, and implement goal directed strategies.

Beck (1996) thus uses the term schema to incorporate affect, cognition and behaviour. Beck may have produced a useful clinical tool, but is in danger of making the term schema over-inclusive and thus meaningless, and unhelpful to research. In addition his model has been criticised for not making clear whether schemas are traits, constantly influencing information processing or whether they remain latent until activated, at which point they bias processing (Segal, 1988). In contrast to attachment and other object relations theories, he also neglects to offer a comprehensive model of how specific schemas develop, and what features of a person’s environment, interpersonal or otherwise, they represent.

Drawing on clinical work with personality disorders, Young (1994) expanded Beck’s model, offering a more parsimonious definition of a sub-set of 15 dysfunctional schemas which he calls Early Maladaptive Schemas. These are stable and enduring themes regarding the self and relationships, containing unconditional thoughts, like “I am unlovable”. They are developed through relationships experienced in the first few years of life, and elaborated throughout child and adulthood. For example, in a family that is detached, cold and rejecting a schema may develop of emotional

deprivation, or the expectation that one's need for emotional support will not be met by others.

Early maladaptive schemas process experience, and are resistant to change reinforced by processes including cognitive distortions and self-defeating behaviours. They have a high emotional content, and if activated lead to high levels of affective arousal. Young argues that as a result many patients employ cognitive, affective and behavioural avoidance strategies, akin to defence mechanisms, to avoid triggering schemas or their associated unpleasant feelings. Schemas are activated throughout life by events that are perceived as relevant to the particular schema (Young, 1994; McGinn & Young, 1996).

Both Young's (1994) and Beck's (1967, 1976, 1996) accounts of schemas were developed from clinical practice, and explain pathologies of emotional experience. Teasdale & Barnard (1993) offer a far more complex, ambitious account of schematic processing within their interactive cognitive subsystems (ICS) framework, a comprehensive account of parallel and serial information processing relevant to all populations. This integrates and builds on research conducted within both information processing and connectivist models of cognition.

Within the interactive cognitive subsystems framework, information processing consists of the storage of patterns of information and the transformation of one kind of information (eg. visual inputs of light, brightness, colour) into other forms of information (eg. an object). Cognitive processing occurs within and between subsystems, each of which is specialised in processing and transforming one form of

information or code, eg. sensory codes, meaning codes. Of particular relevance to this discussion is the role of the implicational meaning sub-system. This encodes high level regularities or repeatedly experienced patterns in the world, the body and the mind, which are viewed as “Schematic models of experience” (Teasdale & Barnard, 1993; p.52). Implicational code patterns integrate elements from all low-level sensory codes (acoustic, visual, body state, object and morphonolexical/speech codes) together with known semantic relationships (eg. birds have wings) to provide holistic meanings. Teasdale & Barnard (1993) provide the following example of schematic implicational meaning. A says to B “Try again”. In one case, A is a smiling boss, using a gentle tone of voice and B hears this whilst feeling relaxed, and refreshed after a rest. In another case, A says “Try again” in a strained tense voice, and B hears it at a point when he is already feeling tired. By combining sensory information with the utterance, the implicational sub-system encodes either one of two holistic meanings. In the first case “What an understanding boss, I am glad to work here” and in the second “I have done it again, and am in for the chop”.

Teasdale & Barnard (1993) illustrate how the implicational schematic model can influence future information processing, behaviour and emotion. Elements that do not fit with a largely supported schematic model will often not be processed further. For example, if most elements fitted a model of self as worthless other contradictory evidence of a recent success will be disregarded. Schematic models contain implicit knowledge of the likely consequences, related actions and emotions within a situation. For instance, a frying pan on fire could then generate semantic codes (over heating causes fire), emotions (fear) and action codes (turn cooker off), stored in memory and used in future situations.

The implicational code also “Provides a common currency in which sensory and cognitive contributions can be expressed, integrated and which can modulate the production of emotion” (Teasdale & Barnard, p.91). Indeed, only representations at a schematic level can produce a direct emotional response. Schematic models encode and integrate recurring features associated with a given emotion, and guide the future generation of emotion. For instance, a threat schematic model may include patterns in acoustic code (shrieks), in body state codes (heart thumping) and in propositional codes (lifts are dangerous). In future a combination of these patterns, or each one individually will trigger the accompanying emotion of fear.

The interactive cognitive subsystems framework explains so much that it is difficult to test or make predictions from. Teasdale & Barnard (1993) argue that its complexity is warranted given the intricate nature of information processing, and the undesirable alternative strategy of having many theories explaining information processing in a piece-meal fashion.

Whilst differing in their theoretical aims and definitions of schema which vary from general themes about self and relationships (Young, 1994), to a sub-system of information processing that incorporates holistic meanings and regularities in a person’s environment (Teasdale & Barnard, 1993), all the models conceptualise schemas as stable structures encompassing repeatedly experienced themes, and which self-perpetuate by influencing subsequent information processing, behaviour and emotion.

1.2.3 Social cognition

Research in social cognition has concentrated on integrating cognitive concerns within social psychology with information processing models in cognitive psychology. It draws on literatures concerning theory and research on attribution, person perception, situation perception, attention, perception, problem solving and memory (Baldwin, 1992; Westen, 1991). As examples of this approach, I will describe the theories of Baldwin (1992) and Crick and Dodge (1994).

Baldwin (1992) proposes a model of relational schemas, similar in many respects to Horowitz's (1991) account of reciprocal role models. Relational schema incorporate self and other schemas, and interpersonal scripts. Scripts represent a sequence of actions and events defining a particular relational pattern, and include thoughts, feelings and goals of self and other. Self and other schemas are generalisations about the self and other in particular relational contexts. Baldwin (1992) argues that much of what defines relational schema is in the form of "if... then" procedural knowledge which is not accessible to awareness. For example, if a person has a schema of self as submissive, they will have procedural knowledge structures representing patterns of submissive relevant interaction and declarative memory structures, more accessible to awareness, of dominant other. Relational schema are developed from repeated experiences of similar interpersonal interactions.

Baldwin (1992) states that relational schema predict information processing, emotion and behaviour. They affect perception of social situations, memory including storage and recall, and interpretation of ambiguous information in schema consistent ways. For example, if a person holds a self schema of independence, they may be more

perceptive to variations in independent behaviours, may process this information more efficiently and find instances of independence and dependence easier to recall than other people. In terms of emotion, schemas elicit related feelings often belonging with an earlier relationship. They are also involved in learning what types of behaviour signal both increases and decreases in relatedness with others. Therefore, relational schemas shape expectations about and interpretations of others behaviour, and beliefs about desirable responses and inevitably interpersonal behaviour. The interpersonal consequences of these processes often support the schema. Thus again, schemas are self-perpetuating.

In a social information processing theory derived largely from research on children's processing mechanisms, Dodge (1993) suggests that children's reaction to social stimuli consists of a sequence of unconscious and conscious processing steps. First, a child *encodes* external and internal cues, before *applying meaning* contained within a mental representation stored in memory. This process relates the stimulus situation to an individual's emotional needs and goals. In *response accessing*, the representation elicits one or more behavioural and affective responses. These *responses are evaluated* in terms of moral acceptability and anticipated consequences. The final stage in this process is *response enactment*. Crick & Dodge (1994) expanded this model, suggesting that parallel processing occurs between all processing stages, and that processing is non-linear.

Schemas organise and guide children's processing at every stage (Crick & Dodge, 1994). Dodge (1993) described how early social experiences interact with neural functioning to produce social knowledge structures, or schema, for past life

experiences, expectations for future events and affectively charged vulnerabilities. Schemas operate as cognitive heuristics, or rules, to help increase the efficiency of processing. Unfortunately, they can also result in judgement or reasoning errors. Because they influence processing, schemas also affect social behaviour. This behaviour and its consequences become incorporated in schema. Thus again, schema are self-perpetuating both through their impact on information processing and behaviour.

Dodge (1993) integrates this theory with research to provide models of children's conduct disorder and depression. He suggests that early experiences of physical abuse, exposure to aggressive models and insecure attachments lead to a schema of the world as a hostile place that requires coercive behaviour to achieve goals. Children therefore attend to hostile elements of situations, and are more vulnerable to interpreting social stimuli as a threat to self. They access aggressive responses to social cues, and evaluate the probable outcomes of these as favourable, hence engaging in aggressive behaviour. Repeated experiences of such encounters confirm the original schema, leading to more automatic processing. In contrast, depression is explained by early experiences of interpersonal loss, or pressure to achieve leading to a negative self-schema. Children then attend to negative aspects of new events, and attribute their causes to internal, stable and global factors. They have ready access to depressive responses and behave with the symptoms of depression, which through their consequences are likely to confirm the pre-existing schema.

This theory is the first reviewed to provide a description of the development of two childhood pathologies and, like Teasdale & Barnard (1993), clearly delineates

different processing mechanisms involved in producing behaviour. However there are problems with the theory. Crick & Dodge (1994) whilst acknowledging the potential influence of emotion in processing, do not integrate affect with the rest of their model. Dodge (1993) also states that the link between schema and processing is purely theoretical. In addition, the magnitude of correlations between any one processing step and behaviour is small ($r=0.3$), and even when processing is aggregated it accounts for only half the variance in symptoms (Crick & Dodge, 1994; Dodge, 1993). This could be considered as a major weakness of a model designed to be descriptive.

Thus social cognition literature describes schemas as developing from early social life, and as incorporating repeatedly experienced themes about self and others. They have their strength in explicitly outlining how schemas affect subsequent information processing.

1.2.4 Integrationist approaches

Several theorists have argued that the above traditions have much to offer one another in their understanding of schema, and this has led to attempts to integrate approaches (eg. Hammen, 1992; Safran, 1990; Shirk, 1998; Westen, 1991). Westen (1991) argues that object relation theories have implications for social cognition in their delineation of unconscious schemas and defence mechanisms that may be used in processing information. They also take a developmental perspective, and emphasise emotional investment in other people, often overlooked in cognitive accounts of schema. Similarly, Westen (1991) argues that object relation traditions

could benefit from social cognitive well-designed research, and this tradition's careful descriptions of individual cognitive processes influenced by schema.

Safran (1990) suggests that interpersonal schema is an integrative theoretical construct, spanning both cognitive and interpersonal literatures. He argues for focus to shift from examination of self-schema to an ecological alternative of looking at what role schemas play in the real, interpersonal world. He describes interpersonal schemas as generalised representations of self-other relationships. In addition, he argues that in conjunction, self-worth contingencies, often described as self schema, function as implicit rules for maintaining relatedness with others. He describes a cognitive interpersonal cycle. Schema inconsistent information is unattended to or discounted, leading to faulty social interactions and the schema is then consistently confirmed by interpersonal consequences of behaviour.

In another attempt at integration of cognitive, interpersonal and life event research, Hammen (1992) presents a developmental psychopathology model of depression. She suggests that negative self-schema are acquired from early family relationships, which lead to a network of memory associations that are connected to emotion nodes. Concepts of self are linked with evaluative beliefs and memories of behaviours. Depression results from a real or symbolic relationship loss, and activation of negative self-cognitions. These cognitions can both affect interpretation of the life events in terms of loss of personal worth or meaning, and can underlie maladaptive behaviours that contribute to negative interpersonal events.

1.2.5 Critique of schema concept

The above discussion has shown that there are a wide diversity of schema definitions, leading to considerable confusion as to what a schema is, and how it operates within psychological problems and in normal development.

As we have seen, conceptualisations of schema vary in purpose, influencing their description of schema. They range from theories of a generic model of information processing (Teasdale & Barnard, 1993), to theories of difficulties in interpersonal relationships and disturbed mood (Beck, 1996; Bowlby, 1969, 1973; Horowitz, 1991), to theories explaining a sub-set of psychological problems (Crick & Dodge, 1994; Young, 1994). Depending on the theory in question, the term schema has been used to encompass belief, affective, physiological and information processing structures, and in some theories all of these (eg. Beck, 1996). Theories also differ in the type of schema described, cognitive theories emphasising self-schema and object relation and social cognition traditions emphasising relational, or self-other schemas.

This diversity of definitions renders the term schema conceptually ambiguous. The concept seems so diffuse that it can explain all processes, developmental, cognitive, affective and physiological, involved in psychological problems. By the same token, this diffuseness hinders research which requires conceptual specificity to generate falsifiable predictions and ensure construct validity.

There is also conceptual ambiguity surrounding the link between schemas and psychological problems. For instance, Segal (1988) points out three possible relations between self-representations and depression. In the *availability* theory,

depressed people have access to different personal constructs from other people. In the *accessibility* theory, the frequency of depressed mood increases and maintains the accessibility of negative self-constructs. In the *negative self-schema* theory, there are differences in the interconnectedness of personal constructs between depressed and non-depressed people, with depression activating negative self-schema which is latent but present ordinarily. Shirk (1998) outlines three possible models of how interpersonal schema may influence children's symptoms. In a *pre-emptive processing model*, activated schemas undermine effective information processing and may sensitise children to negative aspects of social interactions, leading to negative emotional reactions and maladaptive behaviour. In a *schema triggered affect model*, stressful interpersonal events may activate problematic schemas which then trigger related emotions. Finally, within a *behavioural priming model*, interpersonal schema increase the likelihood that specific interpersonal or affective regulation strategies will be deployed. Many of the reviewed theories have yet to have strong empirical validation, adding to the confusion concerning the precise relationship between schemas and mood (eg. Beck, 1996; Dodge, 1993; Young, 1994).

These conceptual problems are reflected in the disagreements on what should be researched, and how this should be done. For instance, Segal (1988) argues that to demonstrate negative self-schema, one must go beyond looking at the content of information stored, like beliefs, to determine whether there are functional inter-relationships between individual stored elements. Only by doing so will research eliminate a purely mood congruency effect, in which negative cognitions are activated because of the affective content, and assess whether there is an underlying schematic structure which can be activated in the absence of negative mood, and

which can influence subsequent processing. Yet research in this area has largely failed to do this, often only examining the impact of beliefs on mood in a cross-sectional manner. In addition, many theories state that schematic processes are unavailable to awareness without clearly delineating which processes are being referring to. This has led to some debate as to whether questionnaire measures which tap conscious thoughts or information processing tasks, tapping schemas indirectly, should be used (eg. Baldwin, 1992; Segal, 1988). Reflecting theoretical ambiguity on how schemas are developed and activated, research studies differ in how they select participants likely to have maladaptive schemas (eg. community samples, depressed samples, children of depressed mothers), and whether or not they see the necessity of priming participant's potentially latent schemata before they are measured (eg. Segal, 1988).

This critique begs the question, is the term schema useful? I argue that the wide theoretical, clinical and research interest in schemas implies that the concept is beneficial in generating new fields of inquiry and practice. In addition, theories drawn from both clinical and empirical observations share common features implying that there is an underlying phenomenon worthy of description and study.

The majority of theories reviewed agree that schemas are developed through experiences of the self and others in early childhood, and are elaborated on throughout life. Schemas encompass repeatedly experienced personal and interpersonal themes, and guide subsequent information processing and behaviour. The majority of theories also state that schemas are attached to or incorporate affect. They all describe schemas as being stable and as having self-perpetuating qualities.

For instance, Segal (1988), in his review of depression theory and research, offers a common definition of “Schemata consist of organised elements of past reactions and experience that form a relatively cohesive and persistent body of knowledge capable of guiding subsequent perception and appraisals” (p.147). Drawing from a separate body of literature on interpersonal schema, Shirk (1998) in his review suggests that these are “Derived from recurrent or salient interpersonal interactions...entail generalized expectations about others’ probable response to the self’s behaviour or emotion. Through their influence on the interpretation of new interactions, the arousal of emotion, and the priming of behavioural strategies, interpersonal schemata link the interpersonal past with the present” (p.6).

In conclusion, whilst the schema literature is a conceptual jungle, the striking similarities between different theories mitigate to some degree the ambiguity surrounding the concept. More research that clearly operationalises the concept and which sets out to test different explanations of schema’s role in psychological problems is clearly required.

1.3 Research on schemas in children

There are four methodological traditions present in empirical work on children’s schemas. The first of these is psychoanalytic, a literature that uses observation, interview and projective tests to infer schemas presumed to be predominantly unconscious. The second uses information processing tasks, including encoding and recall, to infer the presence of schema that are unavailable to conscious processing. Self-report questionnaires have been used to assess declarative knowledge aspects of

schema, which may reflect unconscious procedural aspects (Baldwin, 1992). Finally, experimental methods have been employed.

1.3.1 Psycho-analytic research

Within the attachment literature, Main et al. (1985) looked at forty 12-18 month old infants' reactions to the Ainsworth strange situation in which children are briefly separated from their parents in a strange environment, and their responses to reunion with a parent are observed (Ainsworth, Blehar, Waters & Wall, 1978). When these children were 6 years old, their reactions to actual and hypothetical parental separation were reassessed, and their parents interviewed using the Adult Attachment Interview which classifies attachment style. Main et al. (1985) found that the infants' early relationship to mothers, but not fathers, significantly predicted their responses at aged 6 years to hypothetical separation situations. They also found that parents' attachment styles, especially the mothers, were related to the attachment classification of the infant. Main et al. (1985) suggest that these findings support a hierarchy of working models of attachment, in which the mother is prominent for children.

The intergenerational match between mothers' interview responses and the infant-mother attachment has been extensively replicated (Steele, Steele & Fonagy, 1996). For instance, Steele et al. (1996) obtained adult attachment interviews in the last trimester of pregnancy from 90 couples. They found associations between mothers' patterns of attachment and children's security of attachment in the Strange Situation test at 12 months, and between fathers' classification of attachment and the children's security of attachment in the Strange Situation test at 18 months. Their results were

suggestive of an overarching influence of the mother's attachment-related status on the infant-father attachment. They suggested that mother's attachment related state of mind influences the child's behaviours in other interactions. In a follow-up study of a sub-sample of 63 children, Steele, Steele, Croft & Fonagy (1999) predicted that early attachment security, with confidence in the mother's availability and the implicit internal working model of self as worthy of affection, would lead to advanced understanding of emotion. They followed up children at aged 6 years, and found that mixed-emotion understanding was predicted by the security of the infant-mother but not infant-father attachment relationship. Again, this suggests a primary caretaker effect of mother. Steele et al. (1999) suggested that modes of mother-child communication may mediate the link between early attachment security with the development of emotion understanding.

The apparent inter-generation transmission of representations supports Bowlby's (1967) theory that working models develop from early parent-child interaction. However, the inter-generational transmission of attachment styles could also be explained by factors other than an underlying cognitive structure including learned behaviour, linguistic style and inheritance. There is also some evidence to suggest that the infant's temperament plays a role in attachment classification (Steele et al., 1996).

Stovall & Craig (1990) applied a projective test to examine the mental representations of 7-12 year old girls who had either been sexually abused, physically abused or grown up in distressed environment but with no known abuse. They concluded that abused girls differed from non-abused girls in their mental

representations. Abused girls focused on logic, actions and behaviour in their descriptions of others, and used less distinguishing information than the other girls. However mental representations are only inferred from non-standardised test results. In addition, the authors do not offer a rationale for why representations should differ between these groups, or what might be represented

1.3.2 Information Processing research

Studies that have used information processing methods have concentrated largely on the relationship between self-schema and vulnerability to depression in children. In a typical study, children are given a list of positive and negative adjectives, and asked to rate whether each word is like them-selves or whether it is a long word. In an incidental recall task, they are asked to remember as many words as possible, and a negative self schema score and positive self schema score are computed from the proportion of words recalled and rated as self descriptive in each category (e.g. Jaenicke, Hammen, Zupan et al., 1987). These tasks are based on the hypothesis that schemas facilitate memory storage, and enhance the encoding and retrieval of information, such that self-descriptive adjectives consistent with schema will be better recalled than schema irrelevant words. Studies differ in whether they consider it necessary to activate a schema before administering the processing task, with a minority using a mood-priming task.

1.3.2.1 Comparisons between children of depressed and non-depressed mothers.

Comparisons between children of clinically depressed mothers with children of other mothers test the hypothesis that children of depressed mothers are more at risk of

developing negative self schema through negative maternal interactions and family stress, and hence more vulnerable to depression themselves (Jaenicke et al., 1987).

In the Jaenicke et al. (1987) study, children aged between 8-16 years who had unipolar or bipolar depressed mothers had less positive self schemas than children whose mothers were physically ill or who had no discernable mental or physical illness. These schemas were related to a life-time history of maternal depression, and the mother's own ratings of chronic stress. Researchers rated the quality of child-mother interaction in an experimental task and found that higher maternal negative responses were related to low positivity of self schema in children. Unfortunately, the paper does not specify whether raters were blind to the mother's experimental group, and therefore these results may be confounded by experimenter bias. Indeed, children's perceptions of maternal behaviour were not related to positivity of schema. These results support the hypothesis that schema are developed from interactions between parents and children, but do not demonstrate the relationship between these schemas and psychological functioning.

To answer this question, Hammen (1988) did a 6 month follow up of these children. She reported that while stressful life events and diminished self concept were important predictors of depression, positivity of schema did not predict severity of depression. However, positivity of self-schema did predict non-affective diagnoses, including conduct disorder. Unfortunately, the authors did not control for comorbidity in their separate analysis of affective and non-affective disorders, muddling the role of schema on each disorder. These results imply that, although self-schemas are less positive in children of depressed mothers, they may not be

clinically significant in terms of predicting children's depression. Instead, Hammen (1988) suggested that generic self schemas may measure something different from the self deficiency construct relevant to depression.

Taylor & Ingram (1999) also compared 8-12 year old children of unipolar depressed mothers with children of non-depressed mothers. They randomly assigned all children to either a sad mood induction task designed to activate schemas or a control group before administering the incidental recall task. They statistically controlled for levels of children's depression in their analysis. They found few differences between high and low risk children under ordinary mood conditions, but in a primed sad mood high risk children show a cognitive vulnerability, thinking less positively about themselves and increasing their recall of negative information.

1.3.2.2 Comparisons between distressed and non-distressed children

To provide a direct test of the content specificity of schemas in different psychological problems, several studies have compared the self-schemas of depressed children with non-depressed children.

Hammen & Zupan (1984) recruited a community sample of 8-12 year old school children, and obtained a sub-sample of 26 children classified as either depressed or non-depressed based on whether they scored in either the upper or lower thirds on self-rated Kovacs (1980/1981) Children's Depression Inventory (CDI) and Piers Harris Self Concept scale (1969). Using incidental recall of self rated adjectives, they found no evidence for the presence of negative or positive self schema in depressed children, but in contrast non-depressed children did have a positive self

schema. Unfortunately, this study employed a small sample of community children, who might be expected to have low levels of depression compared to clinic samples. However, Prieto, Cole & Tageson (1992) replicated this finding in their comparison of fifty 8-12 year old depressed and non-depressed children recruited through a psychiatric clinic with non-clinic control group. In both non-depressed samples, children recalled more positive than negative self-referent adjectives, but depressed children recalled the same amount of negative and positive self-referent words. These studies all suggest that depressed children have a closer balance between positive and negative self-schema than non-depressed children who tend toward a positive self-schema.

Similar findings have emerged from a study of maternal cognitive schema. Rudolph, Hammen & Burge (1997) used a cut off score of 9 on the CDI to divide their group of eighty one 8-12 year old school children into a high and low depression symptom group. In an incidental recall task, asymptomatic children recalled more positive than negative mother endorsed adjectives, whereas depressed children recalled equal numbers of negative and positive mother referent adjectives.

In contrast to these findings, Zupan, Hammen & Jaenicke (1987) reported that in a community sample of forty-one 8-16 year olds, depressed children endorsed more negative referent adjectives, and recalled more negative words than non-depressed adolescents who endorsed and recalled more positive rated words. They concluded that depressed children had an absence of positive schema and a presence of a negative one, whereas non-depressed children had a positive self-schema only.

1.3.3 Questionnaire research

Rudolph, Hammen & Burge (1995) developed self report measures of relational schema in mother/family and peer domains. In a community sample of one hundred and sixty one 7-12 year old children, they found significant relationships between mother, peer and self-representations. Children's beliefs and expectations about mother/family were associated with active processing of mother relevant information in an incidental recall task. However, there were no differences between positive and negative mother schema groups on incidental recall tasks on either peer or self-representations. They concluded that social experiences are transformed into generalised cognitive representations about outcomes of interpersonal transactions. However, beliefs within a particular interpersonal domain, like family, guide information processing only within that domain.

Using the same measures, Rudolph et al., (1997) found that depressed children had significantly more negative representations than did asymptomatic children. They viewed their mother/family and peers as less accepting, trustworthy and supportive, had more pessimistic expectancies regarding outcomes of interpersonal transactions and perceived themselves as less competent and worthy in the context of peer relationships. They found evidence for models linking negative relational schemas, teacher ratings of peer rejection and depressive symptoms. In a model accounting for 67% of variance, negative family schemas only indirectly affected depression and peer rejection, mediated by negative peer representations.

Other studies use measures of cognitions derived from Beck's (1967 and 1976) model. Stark et al., (1993) divided a community sample of fifty nine 9-14 year olds

on the basis of high and low scores on self report symptom measures. Stark et al., (1993) found that beliefs about self, world and future discriminated between anxious and depressed children from asymptomatic children. Depressed children were discriminated from anxious children in their beliefs about the world and future, and the messages they received about these from their fathers. They concluded that in depressed children negative schemas develop as a result of negative evaluative statements from parents. In another community study of 405 adolescents, Leung & Wong (1998) statistically controlled for the impact of co-morbidity and found that whilst internalising problems significantly contributed to the prediction of cognitive distortions of overgeneralization, personalising, selective abstraction and catastrophising, externalising problems did not. Indeed, adolescents with externalising disorders had no greater cognitive distortions than a control group. However their cognition measure was developed in relation to internalising disorders, and so these findings may be a product of tautology. Leung & Wong (1998) stated that internalising and externalising disorders may have different underlying schemas.

1.3.4 Experimental research

Both pieces of experimental research to date examine the impact of schema upon laboratory based tasks involving peer interactions.

Rudolph et al., (1995) studied eighteen school children in a task designed to create conflict with an unfamiliar peer matched for gender and age. Using ratings of videotapes of this task, children's self reported negative schemas of mother/family were strongly related to less competent conflict negotiation, less adaptive affect

regulation and more conflictual dyadic transactions, and more negative peer responses in the conflict situation. Negative peer representations were related only to more negative dyadic quality and peer responses. Self-representations were not related to any behavioural indices. This highlights the association between relational schema with social behaviour, and demonstrates how these schema may differ in operation from self schema. Rudolph et al. (1995) proposed that negative beliefs drive children's behaviour, interfering with social skills and coping abilities. These representations may be distortions shaped by early experiences, and later generalised to other social situations. Alternatively, they argue that negative representations may result from repeated aversive social experiences.

Dodge and his colleagues have examined self-schema in aggressive boys. Dodge & Somberg (1987) solicited attributional hypotheses from peer rated aggressive and non-aggressive 8-10 year old boys under a relaxed condition and a threatening condition in which the child believed a peer might initiate conflict. Each child assessed peer intent in video-recorded vignettes of peer provocations. Under threat, aggressive boys made more aggressive attributions of peers' intent, whereas non-aggressive boys attributions remained the same in both conditions. The aggressive boys were also less accurate in their attributions whilst under threat. Dodge & Tomlin (1987) asked peer-rated aggressive and non-aggressive adolescent boys and girls to interpret a peer's intention in hypothetical stories involving ambiguous peer provocation. Again, they found that aggressive adolescents were biased toward attributing hostile intent to the peer. Aggressive adolescents were also less likely to use presented social cues in making their attributions, instead relying on self schemas by using past experiences of themselves or peers in making their judgements. In a

second study, use of these self-schemas were related to erroneous interpretations of the social environment.

Together, these studies support the hypothesis that in aggressive children the presentation of a threatening stimulus makes a cognitive schema of threat salient, and this decreases the accuracy of cue interpretation and increases hostile attribution biases. However, Dodge & Tomlin (1987) stress that self-schemas do not fully account for the differences between aggressive and non-aggressive children, and that aggressive children have multiple processing biases that are independent of each other.

1.3.5 Summary and critique of children schema research

Psychoanalytic studies, and studies that compare information processing of children of depressed and non-depressed mothers support the hypothesis that working models of attachment and self schemas develop within a family context and from negative interactions between caretaker and child (Jaenicke et al., 1987; Main et al., 1985; Taylor & Ingram, 1999). Children of depressed mothers seem more at risk of less positive self-schema, in particular when in a negative or depressed mood. However, studies do not show that these schemas necessarily render a child vulnerable to depression, though they may be implicated in non-affective diagnoses (Hammen, 1988).

This literature also tells us something of the schemas related to different psychological problems. Information processing studies have found that depressed children tend to be more even handed in their access to positive and negative views

of mother and self, than non-depressed children (Hammen & Zupan, 1984; Prierto et al., 1992; Rudolph et al., 1997). Other studies indicate that depressed children have more negative representations of self, mother/family and peers (Rudolph et al., 1997; Zupan et al., 1987). There are also indications from questionnaire studies that depression and anxiety, and internalising and externalising disorders can be discriminated by cognitions and by implication self-schema (Stark et al., 1993). Finally, experimental studies imply that aggressive children have increased access to cognitive schemas of threat compared to non-aggressive children (Dodge & Somberg, 1987; Dodge & Tomlin, 1987).

Finally, some studies attempt to outline the relationship between different schemas, and their relative importance in psychological problems. Rudolph et al. (1995) found family, peer and self-schemas were inter-related, though effects on information processing seemed to be domain specific. There are also suggestions that peer and family representations are related to self reported depression, peer rejection and behavioural indices of conflict management (Rudolph et al., 1995; 1997). In contrast, self-representations seem less important to social behaviour (Rudolph et al., 1995).

Thus, this body of research has yielded some consistent results, and useful insights for theory and clinicians. However, a number of methodological and conceptual problems deserve attention since they limit conclusions that can be drawn from this research, and point to new research directions.

These studies suffer from design flaws. Sampling is often either non-randomised or unmatched. In comparative studies, few authors have matched experimental groups in terms of demographic variables, and recruit groups by different means, for instance through clinics compared to schools (Taylor & Ingram, 1999; Jaenicke et al., 1987; Hammen 1988). Thus, results may be due to initial sample differences, which are typically uncontrolled for statistically. In addition, by using wide selection criteria, studies do not always clearly delineate between their experimental groups. For instance, in Jaenicke et al. 's (1987) normal control group of non-distressed mothers and their children, several mothers had history of brief depression. A further example is the use of arbitrary cut-off criteria for depression or anxiety using self-report questionnaires (e.g. Leung & Wong, 1998; Stark et al., 1993; Zupan et al., 1987).

Method artefact and poor construct validity of measures are major problems within this research, in that results may reflect methodology rather than the impact or presence of schemas. Studies do not control for the method artefact of mood, yet depressogenic biases may affect information processing including recall. Segal (1988) refers to mood-congruency effects in which constructs like cognitions are more likely to be activated when the individual is in a particular mood because of their affective content primed by mood. Indeed, several studies note that depressed mood is a large predictor of information processing performance (e.g. Zupan et al., 1987). In addition, negative affectivity affects responses to self report questionnaires, inflating correlations, including perhaps between self endorsed adjectives and symptom reports which many of schema studies rely upon (cf. Watson & Pennebaker, 1988). Thus, rather than reflect an underlying mental representation, results may just

reflect an existing mood's impact on cognition or the method used, unless mood is controlled for statistically. In addition, studies that rely on inferring schema from indirect measures run the risk of not measuring schema at all, but some other construct. For instance, in the Main et al. (1995) study, working models are inferred from observation, but this method may tap purely behaviour and linguistic styles learnt from generation to generation rather than underlying mental representations.

Finally, the majority of studies have concentrated on either trying to demonstrate developmental origins of schemas, or to differentiate between mood disturbances using schema measures. They shy from the thornier issue of precisely how schemas are related to mood disturbances. This is reflected in designs which tend to be cross-sectional and comparative rather than longitudinal, and which can therefore only tell us that disturbed mood is related to schema without really informing us about the pathways between the two concepts. For example, the majority of studies do not attempt to address whether schema leads to disturbed mood, or mood activates schema, or whether both occur. Where cross-sectional efforts have been made to distinguish these models, both hypotheses are supported. For instance, Kelvin, Goodyer, Teasdale, & Brechin (1999) using a sad and neutral mood induction task with a community sample found a tendency for negative mood to activate mood congruent negative self schemas. Rudolph et al., (1997) also tried to discriminate between whether negative relational schemas affect depressive symptoms or vice versa, and found that both models were equally supported by their evidence. Current research therefore does little to distinguish the validity of alternative general process models of schema's impact on mood (cf. Shirk, 1998).

There is also little work on how schemas interact with life events or ongoing social interactions in producing, maintaining or enhancing disturbed mood. The work that has been done in the latter area has all been laboratory based (eg. Dodge & Tomlin, 1987; Rudolph et al.,1995), rather than working in more ecologically valid surroundings. This is despite the fact that theoretical accounts often relate the activation of schemas to environmental triggers, and describe schemas role in the interpretation of and management of ongoing social interactions and events.

This study was designed to build on this research literature by addressing the latter two weaknesses, namely the lack of attention to the functional relationship between mood and schemas, and how schemas interact with real life events to affect mood. It aimed to investigate the functional relationship between schema and mood by studying prospectively the impact of relational schema on psychological difficulties following a life event, secondary school transition, controlling for level of difficulties prior to the event. As previously discussed, there are a number of possible relationships between schemas and mood (see section 1.2.5). Shirk (1998) specifically refers to competing accounts of the impact of interpersonal schema on children, and therefore his theoretical framework was used to organise this investigation. Specifically, the study investigated whether activated schemas subsequently trigger related emotional difficulties, or whether schemas increase the likelihood of specific coping strategies being employed which then impact on difficulties.

The impact of schemas on transition to secondary school was studied because transition is a discrete, normative stressor lending itself to prospective study. In

addition, changing school involves integrating with a new adult and peer group, and therefore is likely to be interpersonally stressful and to activate relational schemas. The literature documenting the impact of school transition on early adolescents is now reviewed.

1.4 School transition

Starting secondary school entails negotiating new social relationships and moving from a small, personalised and task focused environment of a primary school to a departmentalised, larger achievement oriented secondary school, during early adolescence which in itself entails rapid biological and interpersonal changes. It is therefore likely to be challenging and disruptive to the self and to social relationships (Chung, Elias & Schneider, 1998; Seidman, Allen, Aber, Mitchell & Feinman 1994). Documented demands associated with this transition include an increase in daily hassles, a decline in social support and increases in victimisation (Blyth, Simmons & Bush, 1978; Seidman et al., 1994).

The literature indicates that this transition is demanding for children. In a survey of school administrators, Elias, Gara & Ubriaco (1985) found an estimated 8.4% of referrals to social services were attributed to secondary school transition, and 14.7% of informal contacts with special services were also transition related. Prospective one group studies have found significant decreases in self-esteem in first term of a secondary school and one year after the transition (Seidman et al.,1994; Wigfield, Eccles, MacIver et al.,1991), and increases in psychological distress one year after (Chung et al.,1998). The initial negative impact of transition on self esteem is

reduced by the end of children's first year of secondary school (Wigfield et al., 1991).

In contrast to these findings, other prospective studies report stability across schools or positive outcomes of transition. Hirsch & Rapkin (1987) reported a mixed outcome of transition. They reported that children's self esteem remained stable from the end of primary school to the middle of their first year of secondary school, and actually increased at the end of this first year. Levels of somatisation increased, whilst phobic anxiety decreased at secondary school. In a small study 14 pupils, half of whom had specific learning disabilities, Forgan & Vaughn (2000) also found stability in self concept over the transition period. Roeser, Eccles & Freedman-Doan (1999) reported stability in self esteem from elementary school to high school, a period incorporating the transition to middle or secondary school, and concluded that there is long term continuity in both poor and good adjustment in grades, self esteem and school motivation. However, this study only took assessments in elementary and high schools, and therefore does not provide a direct test of the impact of middle school transition.

Using an experimental design, some American prospective studies have compared samples of same aged children who either do or do not change to middle school from elementary school at age 10-11. Blyth et al., (1978) compared children who either attended the same school from kindergarten to grade 8, or who transferred to junior school at grade 6. They found that in the first term of grade 7, children who did not transfer schools had grown in self esteem compared to scores a year earlier. In contrast, amongst children who transferred schools, boys had no change to self-

esteem, and girls actually had lower self-esteem than a year earlier. Blyth, Simmons & Carlton-Ford (1983) reported that grades and participation in extra-curriculum activities dropped after the transition to middle school. Whilst it appears that transition may therefore hinder a normal growth in self-esteem, these results may be due to initial differences between the two samples in school environment and pupil catchments. Nottleman (1987) also compared children who transferred to junior high school after grade 5 or 6, with those who did not transfer at those times. Using children's self report, Nottleman (1987) found positive changes in social, cognitive and physical competence and self-esteem in transition and non-transition groups, and reported no school transition effects either in the first or last term of the school year. Although teachers' ratings of competence were related to children's self reports, in transition groups there were significantly lower secondary than junior school ratings of competence. The latter finding was interpreted as teachers expecting more from children in junior schools compared to primary schools.

The sometimes contradictory findings regarding the outcome of transition have been explained by the different populations studied, with less transition effects often noted in studies employing predominantly white, middle-upper class children from often suburban schools (e.g. Nottleman, 1987) rather than ethnically mixed, poorer samples from inner city areas (Chung et al., 1998; Seidman et al., 1994). They have also been explained by the different measures used in each study, with some self esteem scales being more sensitive to change than others (Nottleman, 1987). Despite somewhat equivocal results, all researchers agree that for some children, transition will be difficult. This has led to a search for variables which predict which children are most vulnerable to negative transition outcomes.

Studies have examined the impact of individual differences, family and school environments on adjustment to secondary school. Academic achievement has been identified as a protective factor in adjusting to secondary school (Chung et al., 1998; Lord, Eccles & McCarthy, 1994), although Forgan & Vaughn (2000) found that adolescents with and without specific learning difficulties reacted to transition similarly. Previous self-esteem and levels of psychological distress in primary school are also significant predictors of a stressful transition to secondary school (Chung et al., 1998; Lord et al., 1994; Simmons, Carlton -Ford & Blyth, 1987; Robinson, Garber & Hilsman, 1995). Robinson et al., (1995) reported that attributional style and perceived self worth predicted depressive symptoms, but not externalising symptoms after transition, and that self worth moderated a negative attributional style and stressor interaction in depression. In terms of gender, some studies have also found that girls are more at risk of problems to their self esteem or psychological well-being post transition (Blyth et al., 1978; Blyth et al., 1983; Hirsch & Rapkin, 1987), with boys showing decreases in academic achievement and increased behavioural problems post-transition (Blyth et al., 1983; Chung et al., 1998). Others have found no significant gender effect (Nottelman, 1987; Seidman et al., 1996). The effect may depend on symptoms being measured, with Chung et al. (1998) reporting that boys were at risk of more differentiated adjustment problems, including low academic achievement and poor school behaviour, whereas girls had more generalised difficulties. Some have argued that ethnic status affects transition (eg. Seidman et al., 1994). Simmons et al. (1991) tested this hypothesis by comparing African American and white American children before and after transition. The two groups adjusted similarly, with differences being largely

X

explained by the more frequent lower class status or older age of Black American children. Seidman et al. (1994) also reported that ethnicity was not a significant predictor of adjustment outcome. In one of the few studies to look at family variables, Lord et al. (1994) reported that parent-adolescent mismatch and home undemocratic decision-making were related to self-esteem and teacher-rated adjustment.

The general and secondary school environment also has an impact on adjustment. Higher ratings of social support predict higher self-concepts and lower psychological distress (Chung et al., 1988). In a study of 17 secondary schools, Simmons et al. (1987) found that the larger and more ethnically diverse the school, the lower the self-esteem of students partially explained by higher levels of victimisation in this environment. School daily hassles also predict self-esteem and competence after transition (Seidman et al., 1994). Robinson et al. (1995) also reported that life events coupled with daily hassles around the time of transition significantly predicted depression and externalising problems following transition.

Taken together, this research implies that transition has at a short-term negative impact on self-esteem and psychological distress. Children of low academic achievement, low social class, with a history of low self-esteem or psychological problems and who have difficult family relationships appear particularly at risk for transition problems. In addition, stressors and schools with large diverse populations have a negative impact on adaptation. It therefore appears that the transition to secondary school is a demanding life event for children, and that some children are particularly vulnerable to this stress.

Unfortunately, there are problems with the above body of research. Most of this has been conducted in America and therefore its validity in British and European school systems is unknown. The majority of studies rely on children's self report data, with common method variance possibly inflating correlations between variables. With the exception of Nettleman (1987) and Blyth (1978), the limitations of local school systems has meant that studies have followed one group of children from before to after transition, yet this design does not control for maturation or historical effects. In addition, only Nettleman (1987) established the impact of re-testing on results, and found no effect. Finally, studies have concentrated largely on documenting the outcome of transition, and there has been little work on identifying what psychological variables predict adjustment, other than previous symptom levels. Robinson et al. (1995) provide the only study which looks at the impact of cognitive variables on adjustment. Despite transition being a stressor, the role of children's cognitive appraisals and coping strategies have not been examined, variables considered vital to outcome of stressful events (eg. Lazarus & Folkman, 1984; Carver, Scheier & Weintraub, 1989). The current study therefore builds on secondary transfer literature by exploring whether psychological variables, like schema, relate to adjustment.

1.5 The current study's rationale and research hypotheses

To recap, this study was designed to build on the empirical literature on schemas and children by elucidating the functional relationship between schema and emotional and behavioural difficulties, and by investigating the impact of schema on the

aftermath of a real stressful life event, secondary school transition. Following Shirk (1998), two alternative theoretical accounts of schema and mood were tested in this study: the *schema triggered affect model* in which activated problematic schemas trigger related emotions, and a *behavioural priming model*, in which interpersonal schemas increase the likelihood that specific interpersonal or affective regulation strategies will be deployed.

The same definition of schema as applied in other studies of children was used: "Internal knowledge structures which presumably contain assumptions and expectations about the self and others in a social context and regulate the processing of information about interpersonal events and relationships" (Rudolph et al., 1997, p. 34). Peer relational schema were the focus of this study, because research indicates that peer representations predict depression, negative dyadic quality and peer responses, and mediate the role of mother/family related representations (Rudolph et al., 1995). It was also felt that peer relational schema may of particular relevance to the task of adjusting to new social networks at secondary school.

To maximise the likelihood of the transition being stressful and hence the activation of schemas, the study needed to sample children particularly at risk of negative reactions to transition. Secondary school transition appears particularly difficult for disadvantaged children, with low academic attainment attending a large, ethnically diverse school. This research was therefore conducted within a deprived inner London Education Authority.

The following specific hypotheses were made:

- Children's peer related and psychological difficulties measured in primary school will increase during the first term of secondary school.
- Academic ability will moderate reactions to transition, with poor ability being related to increased levels of disturbance.
- In keeping with *schema triggered affect model*, schemas mediate emotions either directly or indirectly via coping (Figure 1.1).
- In keeping with behavioural priming model of schema, maladaptive schemas will moderate disturbance following transition by amplifying maladaptive coping strategies (Figure 1.2).

Figure 1.1: Diagrams of schema triggered affect model

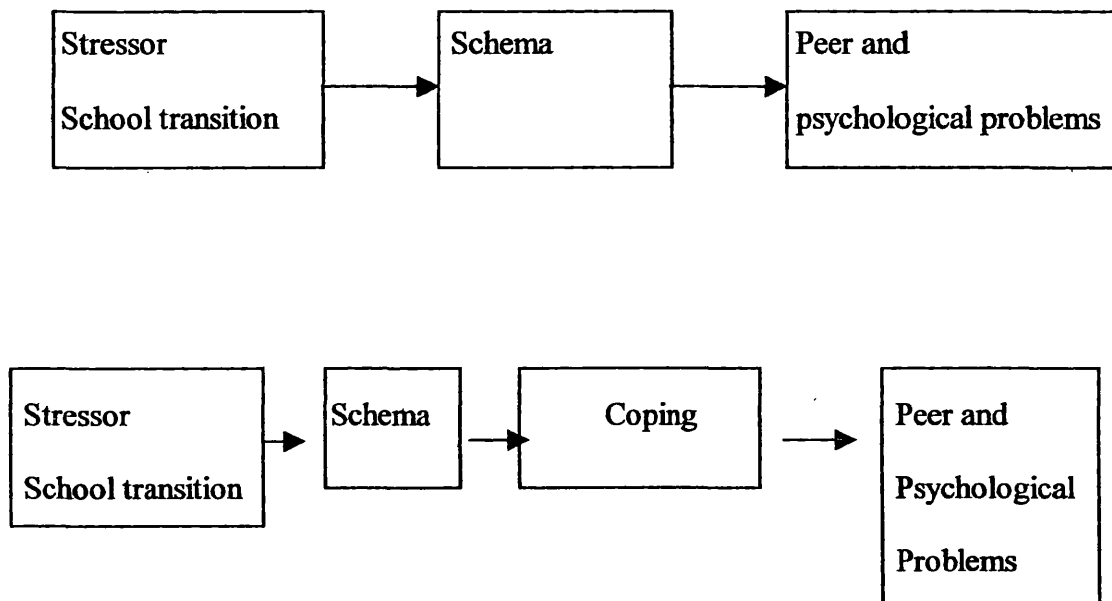
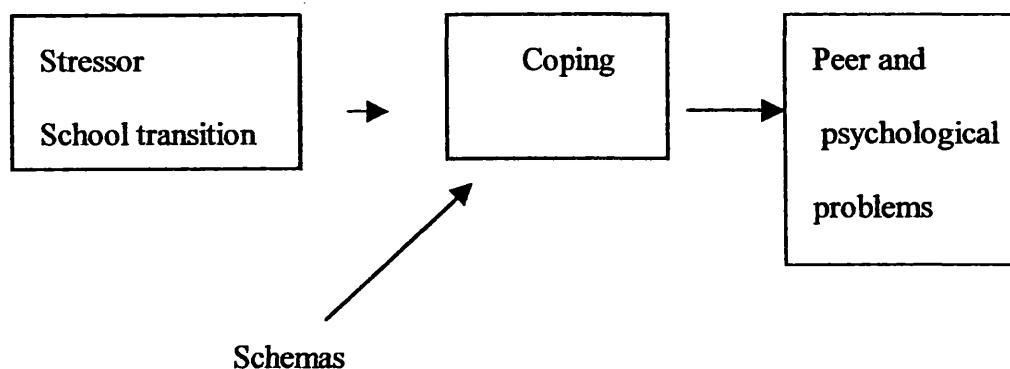


Figure 1.2: Diagram of behavioural priming model of schema



CHAPTER 2: METHOD

2.1 Design

A one group prospective design was employed, with three assessment points. Year 6 pupils were assessed before they left primary school, and twice in their first term of Year 7 at secondary school. To control for the impact of secondary school entered on transition reactions, children from only one selected secondary school and its feeder primary schools participated. Assessment 1 was taken in the last 3 weeks of primary school summer term (July, 1999); assessment 2 and 3 were taken at the beginning and end of the first term of secondary school (September and December, 1999).

With the rationale that schemas and academic ability should be relatively stable over a six month period, children only completed schema measures at assessment 1. Children's self-reports of behavioural symptoms were obtained at all three assessments, and teachers' reports were obtained at assessment 1 and 3. Coping in relation to the transition were measured at the second assessment only. Teacher reports were not taken at assessment two because it was felt that secondary school teachers would not know each child at this early point (Table 2.1). Primary schools released standardised academic results obtained in year 6 (Key stage 2 Standard Attainment Tests: SATS), and secondary schools released standardised tests of reading ability taken in the first term of year 7.

2.2 Procedure

Ethical approval was obtained from the local NHS Trust (Appendix 1).

Table 2.1: Measures employed at each assessment

Assessment 1	Assessment 2	Assessment 3
July, Year 6	September, Year 7	December Year 7
Self-report symptoms	Self-report symptoms	Self-report symptoms
Self-report schemas	Coping	Teacher reports of
Teacher reports of		symptoms
symptoms		Reading ability scores
SAT results		

An inner London Local Education Authority was approached to identify a suitable secondary school for study. Informed consent was then sought from Headteachers (see Appendix 2) of the relevant secondary school and its feeder primary schools. Once this had been obtained, parental consent forms were distributed by the primary schools. Parents were sent an information sheet with a form to sign and return to the school indicating whether or not their child could participate (See Appendix 3). Typically, teachers gave these forms to only those children going to the relevant secondary school and, in a minority of cases, schools sent the forms to children's homes. If less than 50% of forms were returned, I went back to schools, talked to the children about the study and redistributed consent forms to them.

When parental consent was obtained, children were approached for informed, signed consent on an individual basis immediately before each assessment (see Appendix 4). This was typically done by explaining the study to the whole class, and then stating that I would be spending time with some children going to the relevant secondary school. Individual children were then approached for informed consent either in the classroom or one by one as their teacher sent them to see me. Once verbal consent was obtained, children provided written consent immediately prior to completing the questionnaires.

Questionnaires were administered to children in groups of four or less in a room separate from their class. They were asked not to talk, and seated to maximise their privacy and to discourage conversation. Children were encouraged to ask questions if they wanted before and during the assessment. If indicated by the teachers or the

children, questions were read out to individuals with low literacy in English. For the second and third assessment, all questions were read aloud to pupil groups.

At the end of testing, children were asked if they had any further questions or concerns raised by the study. In the secondary school setting, they were told where I would be during breaks if they had any concerns they wanted to discuss in private about the study.

2.3 School Characteristics

One comprehensive school from inner London was identified for the study. It was selected because it was mixed sexed, within a predominantly single sex local comprehensive system, and had a large intake of 243 pupils, with a total of 974 pupils aged 11-18 years of age.

The school was designated as an “Improved” school in its last Ofsted inspection (1998). In the previous two years, a new Head teacher had been appointed, and the 1998 Ofsted team praised their leadership and the substantial improvements made to the school. They reported that attainment in national tests and exams were below the national average. It stated that the levels of attainment on pupils’ arrival to the school were very low, citing Key Stage 2 results in English, Maths and Science as well as the results of standard tests administered in Year 7. In addition, it cited a 89% attendance record as below the national average, and found fixed term exclusions to be higher than average. Six percent of children attending the school had a statement of Special Educational Need (SEN), and 43% of pupils were on registered on a Code of Practice level, namely requiring an individual education plan

under regular review, and requiring extra learning support. Sixty seven percent of pupils in the school were eligible for free school meals, the most commonly used index of social deprivation. The school had introduced girls to Year 7 in 1997. Thus, it was still a predominantly boys school.

The school had in place many preparations for secondary transfer. Staff visited local primary schools to educate children about the school. There were primary-secondary transfer meetings between SEN staff at primary and secondary level. All new pupils and their parents were interviewed by senior staff prior to coming, and were invited to taster days at their new school. Parents were also invited to a parents meeting with senior and teaching staff. Pupils were sent a newsletter and information pack in the holidays before starting school, and were invited to a holiday literacy club. There was an induction day. Mid first term, a review of settling in took place including an anti-bullying survey and a short report with targets. Files were available on each secondary tutor group, giving academic details, and social service, educational welfare, special needs and medical reports. Finally, standardised reading tests were given to target areas of poor literacy.

From more than 60 feeder primary schools, the Headteachers of twelve primary schools were approached to participate. These schools were chosen because they were within the same Local Education Authority as the secondary school, and in March were identified as the main feeder schools sending between 7-16 pupils each and a projected 109 pupils to the school. Of the 12, two refused to participate citing imminent closure in one case and a recent school merger. One other was impossible to contact.

Thus, nine of the 12 primary schools approached participated, a response rate of 75%. In their most recent Ofsted reports, two had passed, five had been classified as improving schools, one as having serious weaknesses and one was in special measures. In March, a projected total of 95 pupils were going from these primary schools to the secondary school. By the time of first assessment some children's choice of secondary school had changed. At this point, a total of 87 children were potentially available for participation (range 4 – 16 pupils from each school).

2.4 Sample

To determine the number of children required to detect a transition effect, a power analysis was performed using Seidman, Aber, Allen & French (1994) data on self esteem before and one year after transition. To detect an effect size of 0.28, a sample size of 103 would be required for 80% power. Given practical constraints of recruiting this many children, we aimed for a minimum of 69% power which would require 80 children.

No selection criteria were applied other than entrance to the selected secondary school. Of the 87 children's parents approached to participate in the study, 54 returned signed consent forms (62%). This compares favourably to the 17% return rate obtained by the 1998 Ofsted inspectorate. Forty six of these parents said that their child could participate and 8 stated that their child could not. Thus, 85% of parents who returned consent forms said their child could participate, which equates to a more conservative response rate of 53% of all those parents approached.

Two of the 46 children whose parents agreed for them to take part were not in the country for data collection at time 1, and were therefore dropped from the study. The remaining 44 children approached all gave their written consent at every assessment point, a 100% response rate.

At assessment one, the sample consisted of thirty eight boys and six girls, all in their last term of year 6, with ages therefore ranging between 10 – 11 years. Twenty four children (55%) had English as a first language, and sixteen children (36%) had English as a second language, with data missing for the remaining 4 children. Fifteen children (34%) were on their school's register of Special Educational Need. In English Special Attainment Tests (SATs) taken in primary school, 13 children (30%) scored either the National average or above (Levels 4 and 5), and 21 (47%) scored below average (Levels 2 and 3). In Maths SATs, 15 (34%) children attained either the National average or above, and 18 (50%) scored below average. According to the standardised Salford test of reading ability, the average reading age of the sample was 9.57 years (SD = 0.99; range = 7years – 11 years).

At the time of second assessment, three boys had left for other secondary schools. At the third assessment, four children were absent due to illness or holiday. Therefore sample at assessment 2 consisted of 41 children and at assessment 3, 37 children.

2.5 Measures

Appendix 5 provides copies of each assessment battery and questionnaire measure.

2.5.1 Perceptions of Peers and Self questionnaire (POPS) This American schema measure was developed for use with children aged between 7 and 12 years (Rudolph et al., 1995). It assesses children's impressions about the extent to which different social attributes describe their peers and themselves. Thirty items are rated on a scale of 1 (not at all true) to 4 (very much true).

The scale consists of two sub-scales, scored by summing items, with a minimum of 15 and maximum of 60 on each sub-scale. High scores indicate negative schemas. The first 15 items examine children's perceptions of their peers and friendships (POP). Example items are "Other kids can sometimes be pretty mean", "Other kids usually like you, even if you have some faults". The second 15 item sub-scale measures children's perceptions of self in the context of peer relationships (POS). The latter taps two dimensions of self representations, a cognitive component or what children "know" about themselves (e.g. "I am a lot of fun to be with") and an affective component, or what children "feel" about themselves e.g. "When other kids do not want to be around me, it is probably because something is wrong with me".

Rudolph et al. (1995) reported Cronbach alphas of 0.75 and 0.83 for the peer and self sub-scales, and test re-test reliability of $r = 0.69$ for both sub-scales for a one month interval, and $r=0.55$ and $r = 0.60$ for a 5 month interval. Cronbach alphas of 0.71 and 0.68 were obtained in this study for the peer and self sub-scales respectively.

In terms of construct validity, Rudolph et al. (1995) found that POPS sub-scales were significantly correlated with other measures tapping children's family and peer representations ($p<0.01$). These included child's report of parental behaviour

(CRPBI, Margolis & Weintraub, 1977); peer and family social support appraisals (APP, Dubow & Ullman, 1989), and expectations of social behaviour of mother and peers (CESBQ Rudolph et al., 1995).

2.5.2 Children's Expectations of Social Behaviour Questionnaire (CESBQ) This American schema measure was also designed for use with 7 to 12 year olds by Rudolph et al. (1995). It examines interpersonal expectancies, requiring children to encode typical interpersonal transactions, formulate an understanding of the problems and generate predictions about likely outcomes.

The peer sub-scale was selected for this study. Fifteen hypothetical vignettes were read aloud by the researcher, and children were asked to select one of three peer responses to each interpersonal situation (scored 0, 1 or 2). These response reflected either supportive (score = 0); indifferent (score = 1) or overtly hostile (score = 2) response styles. Items are summed for a final score, with high scores indicating greater predicted peer hostility (range 0 – 30). An example item is as follows “You’re on the playground at lunch time and one of the older kids comes up and starts to pick on you. What do you think the other kids in your class might do?: (a) they might just walk away (b) they might stick up for me (c) they might join in with the older kid and start teasing me also”.

Rudolph et al.,(1995) report for the peer sub-scale a Cronbach alpha of 0.84, and test re-test reliabilities of 0.91 for a 1 month interval, and 0.68 for a 5 month interval. A Cronbach alpha of 0.72 was obtained in the current study. In terms of construct validity, this sub-scale was significantly correlated with other measures tapping

children's family and peer representations, including child's report of parental behaviour (CRPBI, Margolis & Weintraub, 1977); peer and family social support appraisals (APP, Dubow & Ullman, 1989), and POPS sub-scales (Rudolph et al., 1995).

2.5.3 Strengths and difficulties questionnaire (SDQ) (Goodman, 1997). The SDQ is a brief behavioural screening questionnaire that can be completed by parents or teachers of children aged 4-16 or by children aged 11-16 years. The full child rated SDQ and the teacher rated emotional symptoms and conduct problems sub-scales were employed in this study.

This 25 item measure consists of 5 sub-scales, with 5 items each, pertaining to conduct problems; inattention-hyperactivity; emotional symptoms; peer problems and pro-social behaviour. Items are rated on a 3 point Likert scale from 0 = not true, 1 = somewhat true to 2 = certainly true. All scales bar the pro-social scale are summed to generate a total difficulties score which can range from 0 – 40, with higher scores indicating greater difficulties. Individual sub-scales are also summed (range 0-10). Goodman, Meltzer & Bailey (1998) cited scores of 20-40 in child rated total difficulties scores as abnormal and scores of 16-19 as borderline.

In terms of construct validity, Goodman (1997) reported high correlations between the teacher and parent completed questionnaires with the Rutter Questionnaire, which has well established reliability and validity (range $r = 0.87 - 0.92$). Using the total difficulties score, Goodman (1997) found no difference between his teacher

rated measure and the Rutter Questionnaire in discriminating between children attending a psychiatric and dental clinics.

Goodman et al., (1998) reported good internal reliability of the self-rated SDQ, with Cronbach alpha co-efficients of 0.82 for total difficulties; 0.75 for emotional symptoms, 0.72 for conduct problems, 0.69 for hyperactivity, 0.65 for pro-social behaviour and 0.61 for peer problems. In the current study, Cronbach alpha's on total difficulties scores were 0.65 at assessment 1 (inter-item correlations range -0.43 to 0.58); 0.67 at assessment 2 (inter-item correlations range 0.10 to 0.53) and 0.73 at assessment 3 (inter-item correlations range 0.07 to 0.54). Cronbach alpha's for individual subscales are provided in Table 2.2, and these ranged from 0.03-0.77 for self rated sub-scales, and 0.72-0.82 for teacher rated sub-scales. Cronbach alpha's were low for emotional, conduct and peer problems. An examination of inter-item correlations revealed that one item on emotional disorders was substantially reducing the alphas at all assessments (I get a lot of headaches, stomach-aches or sickness). This item was therefore removed resulting in four items with alphas of 0.58 for assessment 1, 0.72 for assessment 2 and 0.50 for assessment 3. One item on conduct problems reduced alphas at all assessment points (I get on better with adults than with kids my own age). Removal of the item led to alphas of 0.44 at assessment 1, 0.67 at assessment 2 and 0.65 at assessment 3. Whilst these alphas were still low, below 0.6 on some occasions, the modified scales were employed in analysis. Cronbach alpha for pro-social behaviour was low at assessment 1 (0.49), alphas on subsequent assessments were good and therefore the full scale was kept. Cronbach alphas were so low for peer problems that whilst the full sub-scale is included in analysis for interest, results should be interpreted with extreme caution.

Table 2.2: Cronbach alphas for sub-scales of the SDQ.

	Assessment 1	Assessment 2	Assessment 3
Emotional symptoms	0.48 <i>(0.29-0.48)^a</i>	0.64 <i>(-0.04-0.49)</i>	0.41 <i>(-0.23 – 0.39)</i>
Conduct problems	0.37 <i>(0.09-0.37)</i>	0.54 <i>(-0.26 – 0.57)</i>	0.55 <i>(-0.13-0.36)</i>
Inattention-Hyperactivity	0.70 <i>(0.09 – 0.5)</i>	0.74 <i>(0.18-0.59)</i>	0.77 <i>(0.22-0.61)</i>
Peer problems	0.03 <i>(-0.22 – 0.27)</i>	0.32 <i>(-0.37 – 0.55)</i>	0.15 <i>(-0.19 – 0.30)</i>
Pro-social behaviour	0.49 <i>(0.05-0.52)</i>	0.72 <i>(0.10 – 0.53)</i>	0.72 <i>(0.07 – 0.54)</i>
Teacher rated Emotional symptoms	0.72 <i>(-0.03 – 0.54)</i>		0.82 <i>(0.20 – 0.66)</i>
Teacher rated Conduct problems	0.82 <i>(0.00 – 0.83)</i>		0.72 <i>(-0.08 to 0.55)</i>

^a The range of inter-item correlations is provided in italics

2.5.4 How I Coped Under Pressure Scale (HICUPS) (Ayers et al., 1996). This questionnaire asks children to rate 41 statements concerning how they have coped with recent stressful event. It was designed for 9-13 year old children, and developed with American populations.

The scale is empirically based, constructed from content analysis of children's accounts of coping with parental divorce, and is informed by coping theory, drawing on Lazarus & Folkman's (1984) model of problem and emotion focused coping and Billing & Moos (1981) model of active and passive coping (Ayers et al., 1996). The 41 items contain 11 conceptual categories of cognitive decision making; direct problem solving; seeking understanding; positive cognitive restructuring; physical release of emotions; distracting actions; avoidant action; cognitive avoidance; problem focused support and emotion focused support (Ayers et al., 1996). These have been shown to best fit a four factor model of coping, a finding repeated with different populations of children (Ayers et al., 1996; Sandler, Tein & West, 1994). These factors form four sub-scales: active coping, distraction, avoidance and support seeking.

Active coping involves directly focusing on the stressor to deal with it either cognitively or behaviourally. This sub-scale comprises of 16 items which relate to the conceptual categories of cognitive decision making; direct problem solving; seeking understanding and positive cognitive restructuring. The distraction sub-scale contains 9 items which represent the categories of physical release of emotions and distracting actions. These describe the child using some other activity or stimulus to

distract themselves from dealing with or thinking about the problem situation. The avoidance sub-scale contains 8 items of the conceptual categories cognitive avoidance and avoidant actions. These strategies attempt to manage emotion by trying to avoid or stop thinking about the problem entirely. Finally, the support seeking sub-scale contains 8 items that relate to the categories of problem and emotion focused support, which entail involving the use of other people either as resources to help in finding solutions to a situation, or to listen and provide understanding to alleviate distress.

In the original HICUPS, the most stressful event occurring within the last 3 months was generated through interviews with children and subsequent rating by independent experts. This procedure was modified for the current study. All children were asked how they coped in relation to the event of coming to secondary school. The instructions to children were as follows “When children change schools, they think or do many different things to help make this situation better or to make themselves feel better. Please tell us how much you have thought or done each of the different things listed below to try and make things better or to make yourself feel better since coming to X school. There are no right or wrong answers, just mark how often you have done each of these things during your time at X school.”

All items were read aloud by the researcher, and children were asked to rate these on a 4 point Likert scale (1=not at all; 2 = a little; 3 = somewhat; 4 = a lot). Each sub-scale was scored by summing items, and taking their mean (minimum = 1, maximum = 4).

In the Ayers et al. (1996) study, alpha coefficients on the HICUPS ranged from 0.73 for avoidance and 0.89 for active coping (personal correspondence). In this study, alpha co-efficients were 0.79 for active coping; 0.72 for avoidance; 0.79 for distraction and 0.64 for support seeking. Test re-rest reliabilities over a 1 week period for the trait version of this questionnaire (Children's coping strategies checklist: CCSC) were $r = 0.64$ for avoidance coping, $r = 0.79$ for distraction and support coping and $r = 0.80$ for active coping (Sandler et al., 1994, personal correspondence with Ayers). In terms of construct validity, theoretically one would expect active coping to be related to good outcomes, and avoidance to poor outcomes. Sandler, Tein & West (1994), using the CCSC found cross-sectional relationships between high levels of children's avoidance with depression, anxiety and conduct problems, and low levels of active coping with conduct disorders. They also found longitudinal relationships, with distraction and active coping predicting less depression and distraction predicting less anxiety 5 months later. Support seeking predicted higher levels of both depression and anxiety.

2.5.5 Adjustment to school. A scale measuring adjustment to three aspects of school life was devised for this study. Teachers were asked whether each child had adjusted to independent learning; learning within groups and to school rules/boundaries. Items were rated on a 3 point Likert scale (0 = not true, 1 = somewhat true; 2 = certainly true). These items were summed to form a scale of overall school adjustment (range 0 – 6), with higher scores indicating greater adjustment. Cronbach alphas were 0.80 at assessment 1 (inter-item correlations ranged from 0.36-0.83), and 0.74 at assessment 2 (inter-item correlations ranged from 0.39-0.60).

Primary school teachers were also asked whether they thought each child would adjust to secondary school, and similarly secondary school teachers were asked to rate whether each child had adjusted to secondary school. These individual items were rated on a 3 point Likert scale (0 = not true, 1 = somewhat true; 2 = certainly true).

CHAPTER 3: RESULTS

Results were analysed and are discussed in terms of the hypotheses of this study. Following preliminary analysis to assess normality of data and inter-rater reliability between teacher and children's reports of difficulties, section 3.3 examines evidence for an effect of transition to secondary school. This includes whether academic achievement moderates the impact of transition. Section 3.4 examines the evidence for schema mediating and section 3.5 examines the evidence for schema moderating psychological difficulties following transition.

3.1: Preliminary analysis

Preliminary normality checks were performed including an examination of distribution curves and univariate outliers. The distributions of teachers' ratings of classroom adjustment, conduct and emotional problems at assessments 1 and 3 violated assumption of univariate normal distribution with either significant kurtosis or skewness ($p < 0.01$). Square root transformations were effective in achieving normal distribution for classroom adjustment at assessments 1 and 3, and teacher ratings of conduct and emotional problems at assessment 1. Teacher ratings of conduct and emotional problems at assessment 3 were not responsive to square root, logarithm or inverse transformations. Whilst parametric tests were still performed on teacher ratings of conduct and emotional problems to maximise power, given the violated assumptions at assessment 3, their more conservative non-parametric equivalents are reported alongside. The transformed variable for classroom adjustment was used in all analyses. Untransformed data are presented in all tables and figures representing means and standard deviations.

3.2 Concordance between children and teacher ratings.

As a preliminary check of agreement between measures of the same outcome construct, Pearson and Spearman correlations were performed between children's and teachers' ratings of emotional difficulties and conduct problems at assessments 1 and 3 (Table 3.1).

A consistent pattern of results emerged, with neither primary or secondary school teachers' ratings of emotional problems bearing a significant relationship with children's ratings of emotional problems. In contrast, primary school teachers' and children's own ratings of conduct problems were moderately correlated ($r = 0.57$; $\rho = 0.44$ $p < 0.01$), and there was some evidence to suggest that secondary school teachers' ratings of conduct problems were related to children's ratings of conduct problems ($r = 0.39$, $p < 0.05$; $\rho = 0.30$).

Primary school teachers' ratings of emotional difficulties were related to children's self reported total difficulties ($r = 0.36$ $p < 0.05$; $\rho = 0.40$ $p < 0.01$), and their ratings of conduct disorders were also related to total difficulties ($r = 0.44$, $p < 0.01$; $\rho = 0.32$ $p < 0.05$). In contrast, secondary teacher's ratings of both emotional and conduct problems had no significant relationship to children's total difficulties.

The greater concordance between primary school teachers and children imply that primary school teachers have better knowledge of children than secondary school teachers.

Table 3.1: Correlations between children's and teacher's ratings of emotional difficulties and conduct problems.

Children's ratings	Emotional	Conduct	Total	Emotional	Conduct	Total
	difficulties	problems	difficulties	difficulties	problems	difficulties
	Assessment 1	Assessment 1	Assessment 1	Assessment 3	Assessment 3	Assessment 3
Teachers' ratings						
Emotional difficulties	0.01		0.36*			
Assessment 1	<i>0.06^a</i>		<i>0.40**</i>			
Conduct problems		0.57**	0.44**			
Assessment 1		0.44**	0.32*			
Emotional difficulties				0.06		0.19
Assessment 3				-0.12		0.19
Conduct problems					0.39*	0.11
Assessment 3					0.30	0.12

* p<0.05; ** p<0.01 (2-tailed).

^a Spearman rho co-efficients are provided in italics.

The poor concordance between teachers' and children's ratings of emotional problems suggests that teachers are less able to judge a child's subjective emotional state relative to conduct problems.

3.3 Outcome of transition

To examine outcome, analysis was performed on only children for whom a complete data set was available, namely the 37 children who completed all self-report assessments of strengths and difficulties, and the 38 children whose teachers completed assessments in both primary and secondary school. Results from analyses of children's self-rated difficulties will be presented first, followed by analyses of teacher rated measures.

3.3.1 Stability in children's self reported strengths and difficulties To assess whether children's self reports of strengths and difficulties remained stable between primary school and secondary school, Pearson correlation coefficients were calculated between measures at assessment 1 and assessments 2 and 3 (Table 3.2). Strong positive correlations indicated a high level of stability between assessment times, implying that children's levels of difficulties and pro-social behaviour in primary school remain similar in their secondary school. Correlations between assessments 1 and 2 ranged between 0.34 – 0.58, and between assessments 1 and 3 ranged between 0.27 - 0.67. All correlations were significant ($p < 0.05$), with the exception of emotional symptoms at assessment 1 and assessment 3 ($r = 0.27$, ns). Of note, correlation coefficients typically increased between assessments 2 and 3. This may imply an initial impact of transition in the first four weeks of secondary school, which is dissipated by the end of the first term.

Table 2 Correlations between children's self reported strengths and difficulties (n = 37).

	Total difficulties	Emotional symptoms	Conduct Problems	Inattention-hyperactivity	Peer problems	Pro-social behaviour
Total difficulties	0.50** ^a <i>0.67***^b</i>					
Emotional symptoms		0.46** ^a <i>0.27^b</i>				
Conduct problems			0.58*** ^a <i>0.63***^b</i>			
Inattention-hyperactivity				0.49** ^a <i>0.55**^b *</i>		
Peer problems					0.34* ^a <i>0.47**^b</i>	
Pro-social behaviour						0.38* ^a <i>0.59***^b</i>

64

* = p<0.05; ** p<0.01; *** p<0.001

^a Correlations between assessment 1 and assessment 2. ^b Correlations between assessments 1 and 3 are shown in italics

3.3.2 Change in children's self reported strengths and difficulties Table 3.3 shows the means and standard deviations obtained on outcome measures at each assessment.

Using Goodman et al., (1998) criteria, in primary school, 1 child (2.7%) fell within the abnormal range and 7 (19%) fell within the borderline range of self rated total difficulties. At assessment 2, 1 child (2.7%) fell within the abnormal and 8 (22%) within the borderline range. At assessment 3, 2 children (5.4%) fell within the abnormal and 5 (14%) within the borderline range. The number of psychiatric cases defined as a total difficulty score of above 13 (Goodman, 1999) were also calculated at each assessment point. In primary school, 13 children (35%) scored above case threshold. In the first term of secondary school, 13 (35%) scored above case threshold at assessment 2 and 11 (30%) at assessment 3 at the end of the first term. Thus, the percentages of children scoring above case threshold were high in primary school and remained so after transition.

The number of children whose difficulties had deteriorated after transition was calculated. At assessment 2, 20 children had improved and 15 children had deteriorated compared to their scores in primary school, 2 had the same scores. At assessment 3, 26 had improved and 10 had deteriorated compared to their scores in primary school, and one had the same score. Clinically significant change was calculated as 2 standard deviations above or below the mean of children's scores at assessment 1 (Jacobson & Truax ,1991).

Table 3.3: Children's self reported strengths and difficulties in primary school and secondary school (n=37).

	Assessment 1	Assessment 2	Assessment 3
	Primary school	Secondary school	Secondary school
	M (SD)	M (SD)	M (SD)
Total difficulties ^a	11.37 (4.41)	10.82 (5.53)	10.15 (5.42)
Conduct problems ^b	2.86 (1.65)	2.16 (1.87)	2.10 (1.72)
Emotional symptoms ^b	2.86 (1.65)	2.19 (1.97)	1.94 (1.76)
Inattention-hyperactivity ^c	3.22 (2.50)	3.51 (2.70)	3.19 (2.63)
Peer problems ^c	2.16 (1.30)	2.17 (1.49)	2.38 (1.49)
Pro-social behaviour ^c	7.92 (1.67)	7.22 (2.23)	7.00 (2.04)

^a scale ranges from 0-40; ^b scale ranges from 0 – 8; ^c scale ranges from 0-10.

This is a stringent measure of change where functional and dysfunctional distributions overlap, as in this case with high correlations between difficulties at primary and secondary school (Jacobson, Roberts, Berns & McGinchey, 1999). The absence of normative data for children on this measure precluded using alternative definitions of clinical change. At assessment 2, three children deteriorated and one improved by two standard deviations. Six children had deteriorated and 8 children improved by one standard deviation. At assessment 3, one child deteriorated and none improved by 2 standard deviations. Three deteriorated and 7 improved by one standard deviation. This case by case analysis indicates that only between 3 - 8% of children clinically deteriorated during their first term of secondary school.

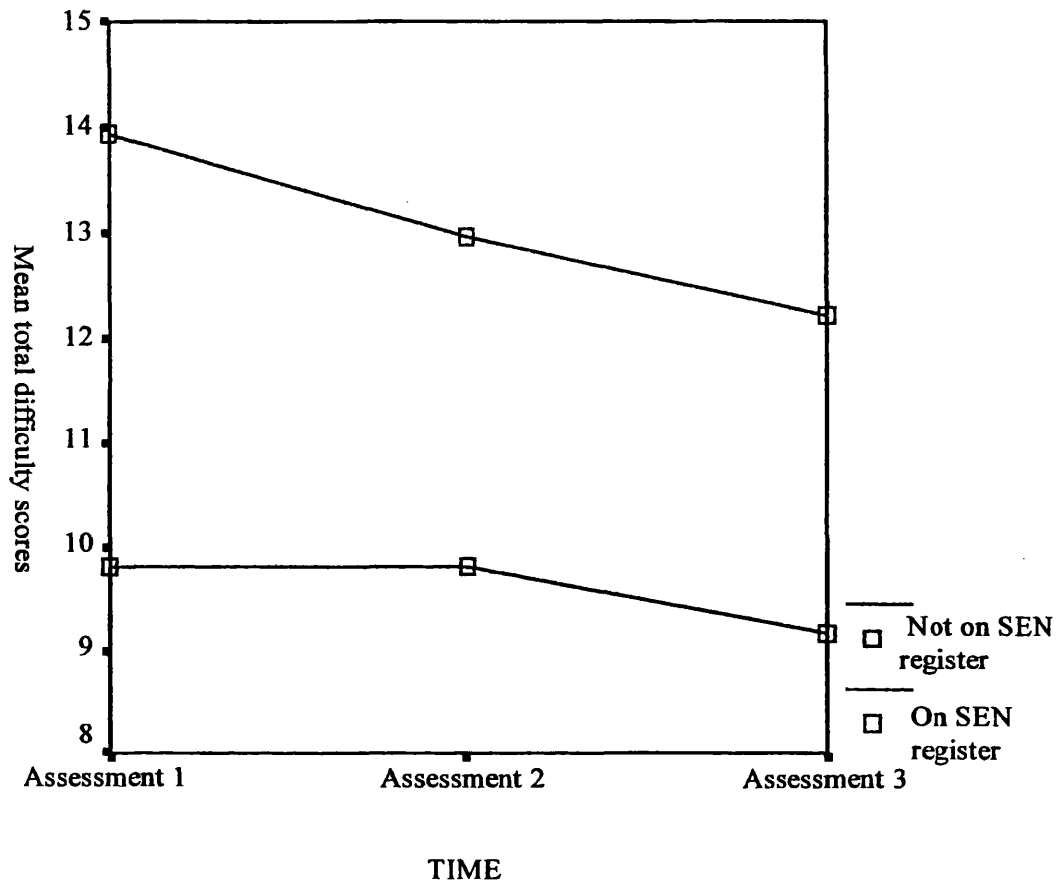
As a main test of the hypotheses that children's psychological difficulties would increase during their first term of secondary school and that poor academic ability would be related to increased levels of disturbance following this transition, two ANOVAs were performed on total difficulties scores. In both of these, the first within subject factor was time, with three assessment conditions. The second between subject factor was level of educational ability. Two indices of educational ability were included in these analyses. First, children were divided into whether or not they were on the primary school's register for special educational needs (SEN status). However, compilation of a register is to some extent dependent on each school's criteria for SEN and will inevitably exclude some children who are on the borderline of this criteria. Being placed on a special register may have a psychological impact independent of academic ability, and indeed be related to psychological well-being. For this reason, continuous and standardised indices of academic ability were also included in analyses, namely Standard Attainment Tests

taken in primary school (SATS). Whilst attainment in English was significantly correlated with SEN status ($r = -0.46, p < 0.01$), attainment in mathematics was not ($r = -0.10$) indicating that SEN status and SAT scores were different, independent measures of academic ability.

In the first ANOVA, level of educational ability was measured by SEN status. Following from the above hypotheses, it was predicted that there would be a main effect of time and an interaction between time and SEN status. Neither prediction held. Using Pillai's Trace tests, there was no significant main effect of time ($F = 1.42 (2,33) p = 0.26$) and neither was there a significant time*SEN status interaction ($F = 0.35 (2,33), p = 0.70$). However, there was a significant main effect of SEN status ($F = 6.37 (1,34) p < 0.05$), with children who were on the SEN register having higher levels of difficulties at every assessment point than other children (Figure 3.1).

In the second ANOVA, assessment time was the within subject factor, and attainment on both Standard Assessment Tests of maths and English were included as covariates (using General Linear Modelling on SPSS). As expected from the previous analysis, there was no significant main effect of time ($F = 0.52 (2,25) p = 0.60$). There was also no significant interaction between time and English SAT scores ($F = 0.23 (2,25) p = 0.79$) or between time and Maths SAT scores ($F = 0.05 (2,25) p = 0.96$). There was also no significant main effect of English SAT scores ($F = 2.42 (1,26) p = 0.13$) or of Maths SAT scores ($F = 1.75 (1,26) p = 0.20$). Thus, this analysis also provided no evidence of a secondary school transition effect influenced by academic ability.

Figure 3.1: Mean total difficulties according to whether children were or were not on school's register of Special Educational Need.



It also suggests that there is no relationship between academic ability in maths and English and levels of difficulty in both primary and secondary schools.

A series of secondary analyses was performed on individual sub-scales of the strengths and difficulties questionnaire to see whether the impact of secondary transfer and SEN status held for all strengths and difficulties. ANOVAS rather than a MANOVA were selected to analyse change because the low numbers employed in this study would reduce the power available for MANOVA (Tabachnick & Fidell, 1989). To attempt to correct for Type I errors that could occur from multiple analyses, a conservative value of $p < 0.01$ was used in the interpretation of results (Table 3.4).

No effects were found at the $p < 0.01$ level. Other findings that reached marginal significance must be treated with caution given the risk of Type 1 errors. There was a significant effect of time on emotional problems ($F = 3.34 (2,33), p < 0.05$). In complete contrast with the hypothesis, this consisted of a significant reduction of emotional problems from assessment 1 in primary school to assessment 2 with a further decrease at assessment 3. Inattention-hyperactivity was increased over all assessment points for children on the register of SEN ($F = 4.31 (1,34) p < 0.05$). There was a main effect of time on pro-social behaviour ($F = 4.58 (2,33) p < 0.05$), with pro-social behaviour decreasing from assessment 1 in primary school to assessment 2 in secondary school ($F = 3.55, (1,34) p < 0.05$), with little movement hereafter.

Table 3.4: ANOVAs on sub-scales of the strengths and difficulties questionnaire.

	F	Df	P value
Conduct problems			
Time	0.56	2,33	P = 0.57
Time*SEN status	0.08	2,33	P = 0.99
SEN status	2.49	1,34	P = 0.12
Emotional problems			
Time	3.34	2,33	P = 0.05
Time*SEN status	0.32	2,33	P = 0.72
SEN status	1.34	1,34	P = 0.25
Inattention-hyperactivity			
Time	0.70	2,33	P = 0.50
Time*SEN status	0.92	2,33	P = 0.41
SEN status	4.31	1,34	P = 0.05*
Peer Problems			
Time	0.09	2,32	P = 0.91
Time*SEN status	0.33	2,32	P = 0.72
SEN status	0.79	1,33	P = 0.38
Pro-social behaviour			
Time	4.58	2,33	P = 0.02*
Time*SEN status	0.85	2,33	P = 0.43
SEN status	0.11	1,34	P = 0.74

* = $p < 0.05$; ** = $p < 0.01$

Time (assessment 1, 2 and 3) was the within subject factor and Special Educational Need status was the between subject factor.

3.3.3 Stability and change in teachers' reported strengths and difficulties

To assess stability over the transition period, correlations were conducted between teacher's ratings of children's difficulties at primary school and at the end of the first term of secondary school. There were no significant relationships between assessments 1 and 2 for emotional difficulties ($r=0.04$, Spearman's $\rho = 0.18$), or for conduct problems ($r = 0.24$, Spearman's $\rho = 0.26$). However, there was a significant positive relationship between teachers' ratings of children's classroom adjustment at primary school and secondary school ($r = 0.41$, $p<0.01$). Thus there was little stability or concordance between teacher ratings of difficulties between primary and secondary school.

Table 3.5 provides the means of teacher rated emotional difficulties, conduct problems and classroom adjustment at primary school and at the end of the first term of secondary school. Table 3.6 provides the number of children rated above and below case threshold or on the border. Primary school teachers rate between 6%-14% of children as above case threshold, depending on the measure, compared with secondary school teachers who rate only 3% of children in this category. Overall, teachers rated more children as above or on the borderline of case threshold on conduct problems than emotional difficulties.

Given that ratings at assessment 3 violated univariate normality assumptions, simple comparisons between means at assessments 1 and 3 were conducted for emotional and conduct problems. Emotional problems were rated significantly lower by secondary school teachers than by primary school teachers using both a paired t-test ($t = 2.88$, $df = 37$; $p<0.01$) and Wilcoxon signed ranks test ($Z = -2.63$, $p<0.01$).

Table 3.5: Means and standard deviations of teacher ratings of difficulties and classroom adjustment at assessment 1 and 2

	Assessment 1	Assessment 2
	Primary school	Secondary school
Emotional difficulties ^a	1.92 (2.23)	0.68 (1.59)
Conduct problems ^a	1.57 (2.18)	0.74 (1.22)
Classroom adjustment ^b	4.68 (1.43)	4.89 (1.27)

^a scale ranges from 0 – 10; ^b scale ranges from 0 – 6.

Table 3.6: Number and percent of children rated by teachers as scoring above psychiatric case threshold on the sub-scales of the SDQ

	Normal	Borderline	Above case threshold
Emotional difficulties	30 (86%)	3 (9%)	2 (6%)
Assessment 1			
Emotional difficulties	34 (94%)	1 (3%)	1 (3%)
Assessment 2			
Conduct problems	26 (74%)	4 (11%)	5 (14%)
Assessment 1			
Conduct problems	31 (86%)	4 (11%)	1 (3%)
Assessment 2			

Conduct problems were also rated significantly lower by secondary school teachers than by primary school teachers using both a paired sample t-test ($t=2.29$, $df = 37$, $p<0.05$) and Wilcoxon signed ranks test ($Z = -2.12$, $p<0.05$).

To assess changes in classroom adjustment after transition, a repeated measures ANOVA was performed with SEN status as a between subjects variable. Contrary to the main hypotheses, there were no significant main effects of time ($F = 0.96$ (1,35) $p = 0.33$) or interaction effects of time* SEN status ($F = 0.09$ (1,35) $p = 0.76$). Neither was there a main effect of SEN status ($F = 2.67$, (1,35) $p = 0.11$). In the second ANOVA, assessment time was the within subject factor, and attainment on both Standard Assessment Tests of maths and English (SATs) were included as covariates. Again, there were no significant effects of time ($F = 0.47$ ($df = 1,28$) $p = 0.50$) or interaction effects between time and SATs in English ($F = 1.44$ (1,28) $p = 0.24$) or time and SATs in maths ($F = 2.88$ (1,28) $p = 0.10$). There was also no significant main effect of SATs in maths ($F = 0.01$ (1,28) $p = 0.94$). There was a significant main effect of SATs in English ($F = 20.74$, (1,28) $p<0.001$), with higher SAT scores associated with higher ratings of classroom adjustment at both assessment 1 ($r = 0.50$; $p<0.001$) and assessment 3 ($r = 0.58$; $p<0.001$).

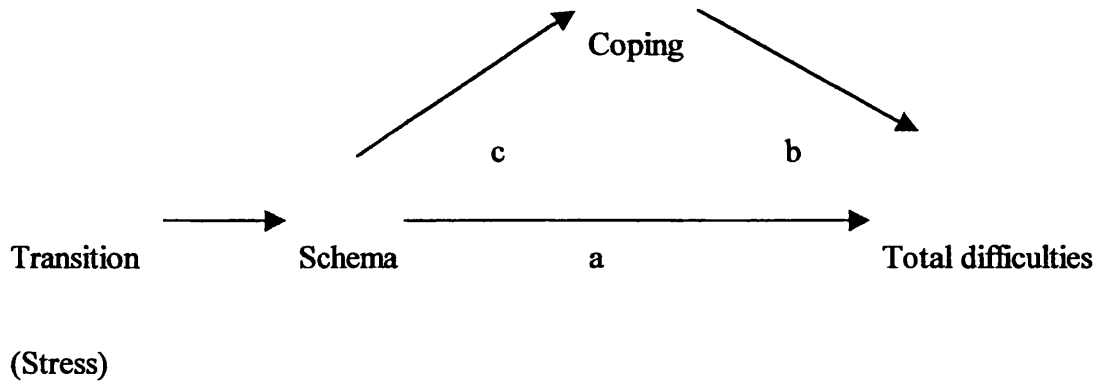
This analysis implies no significant secondary school transition effect on classroom adjustment. Neither does it support academic achievement being a moderator of the impact of secondary school transition upon classroom adjustment. It suggests that academic ability in English, but not maths, positively affects teachers ratings of classroom adjustment in both primary and secondary school.

3.4 Mediator models of schema

A series of multiple hierarchical regression analyses were performed to test whether schema perform a mediator role between transition, a stressor, and subsequent difficulties at assessment 2 and 3. Only self-rated total difficulties and teacher's ratings of classroom adjustment were dependent variables in this analysis. Teacher ratings of conduct and emotional disorders at assessment 3 had such low variance they were not used as dependent variables.

These analyses tested whether within a *schema triggered affect model*, schemas mediates difficulties either directly or indirectly via coping (see Figure 3.2). Following Baron & Kenny (1986) recommendations for testing mediators, three regression equations were conducted with self-rated total difficulties at assessments 2 and 3 as the dependent variables. The first of these tested path a, with schemas regressed onto the dependent variables of total difficulties or classroom adjustment. The second tested path b with coping regressed onto the dependent variable. The third tested pathways c and b with schema and coping regressed onto the dependent variable. For mediation to be established, schemas must be shown to affect total difficulties or classroom adjustment in the first and third equation, and similarly if coping is a mediator, this too must affect the dependent variable in the second and third equation.

Figure 3.2: Diagram of possible mediating pathways between schemas and total difficulties.



Baron & Kenny (1986) state that the independent variable (transition) should be correlated with the mediator (schema). No direct test of this was provided by this study, and would only have been available had a control group been included of children who did not undergo transition.

In all hierarchical regressions, total difficulties or classroom adjustment at assessment 1 were entered in the first step to control for the impact of previous symptoms on difficulties post transition. To reduce the number of variables entered in each equation, the schema measures were summed to give one schema score which was entered in each regression. Pearson correlations between measures were positive (CSEBQ – POP, $r = 0.21$; CSEBQ - POS, $r = 0.27$; POP – POS, $r = 0.48$, $p < 0.01$). An alpha co-efficient of 0.59 was obtained for this composite schema measure.

Multivariate assumptions for regression were tested, and deviations and correction for these are commented on when they occurred. To test for assumptions of normality, linearity, and homoscedasticity, plots of predicted values against the standardised residuals were conducted, and their distribution checked. Multivariate outliers were also detected using these plots and Cooks distance, a measure of influence and Mahalanobis distances ($P < 0.001$), a measure of leverage (Tabachnick & Fidell, 1989).

3.4.1 Hierarchical regressions testing for mediators of total difficulties at assessment 2 (Table 3.7). In all three hierarchical regressions, total difficulties at assessment 1 entered in step 1 explained 23% of the variance in total difficulties at

assessment 2 ($F_{inc} = 11.71 (1,39) P < 0.001$) (Table 7). In the first equation, the addition of schemas in the second step explained no further variance in total difficulties at assessment 2 after the entry of difficulties at assessment 1 (R^2 change = 0.00; $F_{inc} = 0.00 (1,38)$ ns).

In the second equation, active coping, avoidance, distraction and seeking social support were entered as a block in the second step. These explained no further variance in total difficulties at assessment 2 after the entry of difficulties at assessment 1 (R^2 change = 0.04; $F_{inc} = 0.54 (4,35)$ ns). In the final equation, as predicted from the previous analyses, neither schemas in step 2 (R^2 change = 0.00; $F_{inc} = 0.00 (1,38)$ ns) nor coping variables entered in step 3 (R^2 change = 0.04; $F_{inc} = 0.54 (4,35)$ ns) significantly explained further variance after the entry of total difficulties at assessment 1. Thus, there was no evidence that schemas or coping mediated children's self rated total difficulties after a month of secondary school.

3.4.2 Hierarchical regressions testing for mediators of total difficulties at assessment 3 (Table 3.8). Total difficulties at assessment 1 were entered in step 1, and explained 45% of the variance in total difficulties at assessment 3 ($F_{inc} = 28.50 (1,35) p < 0.001$). In the first equation, schemas added in step 2 did not significantly add to the prediction of the variance in total difficulties at assessment 3 (R^2 change = 0.01; $F_{inc} = 0.40 (1,34)$ ns). In the second equation, coping variables added in a block did not significantly add to the prediction of variance in total difficulties at assessment 3 (R^2 change = 0.10; $F_{inc} = 1.83 (4,31)$ ns). However, an inspection of T values indicated that avoidance alone significantly added to the equation ($t = -2.06, P < 0.05$).

Table 3.7: Hierarchical regressions testing the mediating impact of schemas on total difficulties at assessment 2.

Independent variables	Beta	T	F for each step (df)	Adjusted R²	R² change	F inc (df)
Equation 1						
Step 1: Total difficulties at assessment 1	0.48	3.03 **	11.71 (1,39) **	0.21	0.23	11.71 (1,39)***
Step 2: Schemas	0.00	0.01	5.70 (2,38) **	0.19	0.00	0.00 (1,38)
Equation 2						
Step 1: Total difficulties at assessment 1	0.44	2.90**	11.71 (1,39) **	0.21	0.23	11.71 (1,39)***
Step 2: Active coping	-0.16	-0.70				
Avoidance	-0.12	-0.63				
Distraction	-0.00	-0.02				
Support	0.08	0.38	2.66 (5,35) *	0.17	0.04	0.54 (4,35)

79

Table 3.7 : Continued

Independent variables	Beta	T	F for each step (df)	Adjusted R ²	R ² change	F inc (df)
Equation 3						
Step 1: Total difficulties at assessment 1	0.47	2.87**	11.71 (1,39)**	0.21	0.23	11.71 (1,39)***
Step 2: Schema	-0.09	-0.51	5.70 (2,38) **	0.19	0.00	0.00 (1,38)
Step 3: Active coping	-0.17	-0.77				
Avoidance	-0.13	-0.66				
Distraction	0.02	0.10				
Support	0.06	0.30	2.21 (6,34)	0.15	0.05	0.59 (4,34)

* p <0.05' ** p<0.01; *** p<0.001

Table 3.8: Hierarchical regressions testing the mediating impact of schemas on total difficulties at assessment 3.

Independent variables	Beta	T	F for each step (df)	Adjusted R²	R² change	F inc (df)
Equation 1						
Step 1: Total difficulties at assessment 1	0.71	4.99**	28.50 (1,35) ***	0.43	0.45	28.50 (1,35)***
Step 2: Schemas	-0.09	-0.64	14.21 (2,34) ***	0.42	0.01	0.40 (1,34)
Equation 2						
Step 1: Total difficulties at assessment 1	0.61	4.70**	28.50 (1,35) ***	0.43	0.45	28.50 (1,35)***
Step 2: Active coping	-0.05	-0.27				
Avoidance	-0.32	-2.00*				
Distraction	0.04	0.26				
Support	0.20	1.20	7.70 (5,31) ***	0.48	0.10	1.83 (4,31)

Table 3.8 Continued

Independent variables	Beta	T	F for each step (df)	Adjusted R²	R² change	F inc (df)
Equation 3						
Step 1: Total difficulties at assessment 1	0.67	4.90**	28.50 (1,35)***	0.43	0.45	28.50 (1,35)***
Step 2: Schema	-0.19	-1.27	14.21 (2,34) ***	0.42	0.01	0.40 (1,34)
Step 3: Active coping	-0.09	-0.51				
Avoidance	-0.33	-2.06*				
Distraction	0.08	0.59				
Support	0.17	1.02	6.82 (6,30) ***	0.49	0.12	2.15 (4,30)

* p < 0.05; ** p < 0.01; *** p < 0.001

As expected from these results, in the third equation, schemas entered in the second step (R^2 change = 0.01; F inc = 0.40 (1,34) ns) and coping in the third (R^2 change = 0.12; F inc = 2.15 (4,30) ns) did not significantly add to the prediction of variance in total difficulties at assessment 3. This analyses suggests that after difficulties in primary school are controlled for, neither schemas nor coping mediate total difficulties at assessment 3.

3.4.3 Hierarchical regressions testing for mediators of classroom adjustment at assessment 3 (Table 3.9). Classroom adjustment at assessment 1 was entered in the first step in all equations, and explained 17% of the variance in teacher rated classroom adjustment at assessment 3 (F inc = 7.14 (1,36) $p < 0.01$). Schemas were entered in the second step in equation one, and did not significantly add to prediction of variance in classroom adjustment (R^2 change = 0.00, F inc = 0.08 (1,35)). Coping sub-scales entered in the second step in equation 2, and did not significantly add to prediction of variance in classroom adjustment (R^2 change = 0.03; F inc = 0.32 (4,32)). In the final equation, neither schema entered in the second step (R^2 change = 0.00, F inc = 0.07, (1,35)) or coping entered in the third step (R^2 change = 0.03, F inc = 0.33,) 4,31)) significantly predicted variance in classroom adjustment in secondary school.

Thus after initial levels of classroom adjustment in primary school are controlled for, neither schemas or coping sub-scales significantly mediate classroom adjustment in secondary school.

Table 3.9: Hierarchical regressions testing the mediating impact of schemas on classroom adjustment at assessment 3.

Independent variables	Beta	T	F for each step (df)	Adjusted R²	R² change	F inc (df)
Equation 1						
Step 1: Classroom adjustment at assessment 1	0.41	2.64**	7.14 (1,36)**	0.14	0.17	7.14 (1,36)**
Step 2: Schemas	-0.04	-0.27	3.51 (2,35)*	0.12	0.00	0.08 (1,35)
Equation 2						
Step 1: Classroom adjustment at assessment 1	0.39	2.45*	7.14 (1,36)**	0.14	0.17	7.14 (1,36)**
Step 2: Active coping	0.22	0.94				
Avoidance	-0.11	-0.53				
Distraction	0.05	0.29				
Support	-0.20	-0.92	1.58 (5,32)	0.07	0.03	0.32 (4,32)

Table 3.9 Continued

Independent variables	Beta	T	F for each step (df)	Adjusted R ²	R ² change	F inc (df)
Equation 3						
Step 1: Classroom adjustment at assessment 1	0.40	2.44*	7.14 (1,36)**	0.14	0.17	7.14 (1,36) **
Step 2: Schema	-0.07	-0.36	3.51 (2,35)*	0.12	0.00	0.07 (1,35)
Step 3: Active coping	0.19	0.79				
Avoidance	-0.11	-0.54				
Distraction	0.07	0.37				
Support	-0.21	-0.95	1.30 (6,31)	0.05	0.03	0.33 (4,31)

* p <0.05' ** p<0.01; *** p<0.001

85

3.5 Moderator models of schema

A series of multiple hierarchical regression analyses were performed to test whether schema moderates coping following secondary school transition, increasing or decreasing subsequent difficulties at assessment 2 and 3.

Following Baron & Kenny (1986) recommendations for statistical analysis of moderators, the product of schemas and coping was added to the regression equation. In each equation, total difficulties or classroom adjustment at assessment 1 were entered in the first step, schemas in the second step, coping in the third step and schemas* coping in the fourth step with total difficulties or classroom adjustment at either assessment 2 or 3 as the dependent variable. This analysis assumes that the effect of coping on total difficulties at assessment 2 and 3 change linearly with respect to the moderating impact of schemas.

Baron & Kenny (1986) argue that for ease of interpretation of interaction effects, it is desirable for moderator variables to be uncorrelated with both the predictor and dependent variable. Table 3.10 provides correlations between schemas with coping variables and total difficulties at assessment 2 and 3. Schemas were not significantly correlated with total difficulties at either assessment point. Neither were they significantly correlated with distraction or support seeking. However, negative schemas were significantly related to low levels of active coping ($r = -0.39, p < 0.01$) and avoidance ($r = -0.31, p < 0.05$). These moderate but significant correlations needed taking into account in interpreting any significant moderator impact of schemas.

Table 3.10: Correlations between schemas, coping sub-scales and total difficulties at assessments 2 and 3.

	Schemas
Active coping	-0.39**
Avoidance	-0.31*
Distraction	0.18
Support seeking	-0.26
Total difficulties at assessment 2	0.21
Total difficulties at assessment 3	0.24
Classroom adjustment at assessment 3	-0.06

. * p<0.05; ** p<0.01

Separate regressions were conducted for each coping sub-scale. This was due to power considerations which would arise with a greater number of independent variables (Tabachnick & Fidell, 1989).

One multivariate outlier was removed from the analyses of distraction and support seeking on total difficulties at assessment 2 and 3, and classroom adjustment (Mahalanobis distance $P < 0.001$).

3.5.1 Hierarchical regressions testing for moderating effects on total difficulties at assessment 2 (Table 3.11). Total difficulties at assessment 1 were entered in the first step, and accounted for between 18-21% of the variance in total difficulties at assessment 2, variation in equations caused by the omission of outliers ($F_{inc} = 9.50, (1,38) p < 0.01$; $F_{inc} = 9.61, (1,38) p < 0.01$; $F_{inc} = 11.71, (1,39) p < 0.001$). After the entry of total difficulties at assessment 1, schemas added nothing to the prediction of variance in total difficulties at assessment 2 (R^2 change = 0.00 for all equations). In the first regression, active coping was entered in step 3 and did not add significantly to the prediction of variance (R^2 change = 0.04, $F_{inc} = 1.89, (1,37)$), and there was no significant impact of adding schemas* active coping in step 4 (R^2 change = 0.03, $F_{inc} = 1.51, (1,36)$). In the second regression, avoidance entered in step 3 did not add significantly to the prediction of variance (R^2 change = 0.04, $F_{inc} = 1.88, (1,37)$) and neither did the product of avoidance and schemas entered in step 4 (R^2 change = 0.02, $F_{inc} = 1.08, (1,36)$).

Table 3.11: Hierarchical regressions testing the moderating impact of schemas on total difficulties at assessment 2.

Independent variables	Beta	T	F for each step (df)	Adjusted R ²	R ² change	F inc (df)
Equation 1						
Step 1: Total difficulties at assessment 1	0.37	2.16*	11.71 (1,39) ***	0.21	0.23	11.71 (1,39)***
Step 2: Schemas	-1.24	-1.29	5.71 (2,38) **	0.19	0.00	0.00 (1,38)
Step 3: Active coping	-1.18	-1.47	4.53 (3,37) **	0.21	0.04	1.89 (1,37)
Step 4: Active coping * schemas	1.23	1.23	3.82 (4,36) **	0.22	0.03	1.51 (1,36)
Equation 2						
Step 1: Total difficulties at assessment 1	0.40	2.23*	11.71 (1,39)***	0.21	0.23	11.71 (1,39)***
Step 2: Schemas	-0.85	-1.10	5.70 (2,38) **	0.19	0.00	0.00 (1,38)
Step 3: Avoidance	-1.06	-1.27	4.52 (3,37) **	0.21	0.04	1.88 (1,37)
Step 4: Avoidance* schemas	1.01	1.04	3.67 (4,36) **	0.21	0.02	1.08 (1,36)

Table 3.11 Continued

Independent variables	Beta	T	F for each step (df)	Adjusted R ²	R ² change	F inc (df)
Equation 3						
Step 1: Total difficulties at assessment 1	0.43	2.59**	9.50 (1,38) **	0.18	0.20	9.50 (1,38)**
Step 2: Schema	-0.58	-0.62	4.63 (2,37) **	0.16	0.00	0.01 (1,37)
Step 3: Distraction	-0.75	-0.63	3.03 (3,36) *	0.14	0.00	0.06 (1,36)
Step 4: Distraction * schemas	0.93	0.61	2.32 (4,35)	0.12	0.01	0.34 (1,35)
Equation 4						
Step 1: Total difficulties at assessment 1	0.42	2.37*	9.61 (1,38) **	0.18	0.20	9.61 (1,38)**
Step 2: Schema	-0.51	-0.66	4.71 (2,37) **	0.16	0.00	0.05 (1,37)
Step 3: Support	-0.76	-0.65	3.08 (3,36) *	0.14	0.00	0.07 (1,36)
Step 4: Support * schemas	0.80	0.61	2.37 (4,35)	0.13	0.01	0.38 (1,35)

* p <0.05' ** p<0.01; *** p<0.001

In the third regression, distraction entered in step 3 did not add significantly to the prediction of variance (R^2 change=0.00, F inc = 0.06, (1,36)) and neither did the product of distraction and schemas entered in step 4 (R^2 change=0.01, F inc = 0.34, (1,35). Finally, in equation 4, neither support seeking (R^2 change = 0.00, F inc = 0.07, (1,36)) or the product of support seeking and schema (R^2 change = 0.01, F inc = 0.07, (1,36)) significantly added to the prediction of variance in total difficulties at assessment 2.

There were no significant effects of schemas* coping sub-scales after controlling for the impact of total difficulties at assessment 1, schemas and coping alone. This analysis provides no support for schemas moderating the impact of coping on total difficulties experienced at assessment 2.

3.5.2 Hierarchical regressions testing for moderating effects on total difficulties at assessment 3 (Table 3.12). Total difficulties at assessment 1 entered in all equations in step 1 explained between 45 – 48% of variance in total difficulties at assessment 3, variation being accounted for by the omission of outliers in two analyses (F inc = 28.50, (1,35) $p < 0.001$; F inc = 28.82 (1,34) $p < 0.001$; F inc = 30.84 (1,34) $p < 0.001$). Schemas entered in step 2 did not significantly add to the variance (R^2 change = 0.00 or 0.01). In the first regression, active coping entered in step 3 (R^2 change = 0.03, F inc = 1.57, (1,33)) and the product of active coping and schemas entered in step 4 (R^2 change = 0.00, F inc = 0.00, (1,32)) did not significantly predict variance in total difficulties at assessment 3.

Table 3.12: Hierarchical regressions testing the moderating impact of schemas on total difficulties at assessment 3.

Independent variables	Beta	T	F for each step (df)	Adjusted R²	R²change	F inc (df)
Equation 1						
Step 1: Total difficulties at assessment 1	0.69	4.32***	28.50 (1,35)***	0.43	0.45	28.50 (1,35)***
Step 2: Schemas	-0.20	-0.22	14.21 (2,34)***	0.42	0.01	0.40 (1,34)
Step 3: Active coping	-0.21	-0.29	10.16 (3,33)***	0.43	0.03	1.57 (1,33)
Step 4: Active coping * schemas	0.05	0.05	7.39 (4,32) ***	0.41	0.00	0.00 (1,32)
Equation 2						
Step 1: Total difficulties at assessment 1	0.66	4.35***	28.50 (1,35)***	0.43	0.45	28.50 (1,35)***
Step 2: Schemas	-0.37	-0.56	14.21 (2,34) ***	0.42	0.01	0.40 (1,34)
Step 3: Avoidance	-0.51	-0.76	13.08 (3,33) ***	0.50	0.09	6.35 (1,33)*
Step 4: Avoidance* schemas	0.23	0.29	9.56 (4,32) ***	0.49	0.00	0.09 (1,32)

Table 3.12 continued

Independent variables	Beta	T	F for each step (df)	Adjusted R ²	R ² change	F inc (df)
Equation 3						
Step 1: Total difficulties at assessment 1	0.72	5.19***	28.83 (1,34)***	0.44	0.46	28.82 (1,34)***
Step 2: Schema	0.86	1.10	14.13 (2,33) ***	0.43	0.00	0.15 (1,33)
Step 3: Distraction	1.27	1.36	10.15 (3,32) ***	0.44	0.03	1.64 (1,32)
Step 4: Distraction * schemas	-1.50	-1.19	8.07 (4,31) ***	0.45	0.02	1.44 (1,31)
Equation 4						
Step 1: Total difficulties at assessment 1	0.67	4.47 ***	30.85 (1,34) ***	0.46	0.48	30.84 (1,34) ***
Step 2: Schema	-0.59	-0.89	15.08 (2,33) ***	0.44	0.00	0.11 (1,33)
Step 3: Support	-0.77	-0.83	9.75 (3,32) ***	0.43	0.00	0.00 (1,32)
Step 4: Support * schemas	0.88	0.84	7.42 (4,31) ***	0.42	0.01	0.71 (1,31)

* p <0.05; ** p<0.01; *** p<0.001

In the second regression, avoidance entered in step 3 explained 9% of the variance in total difficulties at assessment 3 ($F_{inc} = 6.35, (1,33) p < 0.05$). The partial correlation coefficient for avoidance was -0.13 , and the correlation coefficient between avoidance and total difficulties at time 3 was $r = -0.42, p < 0.01$. This indicates that greater levels of avoidance measured at assessment 2 are associated with less experience of difficulties at assessment 3. The product of avoidance * schemas did not significantly add to the variance (R^2 change = 0.00, $F_{inc} = 0.09 (1,32)$). In the third equation, neither distraction (R^2 change = 0.03; $F_{inc} = 1.64; (1,32)$) or the product of distraction* schemas (R^2 change = 0.02, $F_{change} = 1.44, (1,31)$) added significantly to the equation. In the fourth equation, neither support (R^2 change = 0.00; $F_{inc} = 0.00, (1,32)$) or the product of support* schemas (R^2 change = 0.01; $F_{inc} = 0.71 (1,31)$) added significantly to the equation.

There were no significant effects of schemas* coping sub-scales after controlling for total difficulties at assessment 1, schemas and coping. This analysis provides no support for schemas moderating the impact of coping on total difficulties experienced at assessment 3. After controlling for total difficulties at assessment 1 and schemas, avoidance significantly predicts variance in total difficulties experienced at assessment 3. Avoidance was associated with less difficulties.

3.5.3 Hierarchical regressions testing for moderating effects on classroom adjustment at assessment 3 (Table 3.13). Classroom adjustment at assessment 1 entered in all equations in step 1 explained between 15-20% of variance in classroom adjustment

at assessment 3, variation being accounted for by the omission of outliers in two analyses ($F_{inc} = 8.59$ $df = 1,35$; $p < 0.01$; $F_{inc} = 7.14$, $df = 1,36$ $p < 0.01$; $F_{inc} = 6.26$ $df = 1,35$ $p < 0.05$). Schemas entered in step 2 did not significantly add to the variance (R^2 change = 0.00-0.01). In the first equation, neither active coping entered in step 3 (R^2 change = 0.00) or the product of active coping*schema entered in step 4 (R^2 change = 0.01) explained a significant amount of variance in classroom adjustment. In the second equation, neither avoidance (R^2 change = 0.01) or the product of avoidance* schemas (R^2 change = 0.00) explained a significant proportion of variance.

In the third equation, again neither distraction (R^2 change = 0.00) or the product of distraction*schema (0.00) added significantly to explanation of the variance. Finally, in the fourth equation, neither support seeking (R^2 change = 0.03, $F_{inc} = 1.39$, $df = 1,33$) or the product of support seeking*schemas (R^2 change = 0.01) significantly predicted variance in classroom adjustment at assessment 3.

There was therefore no significant effects of the product of schemas* coping subscales. There was no evidence for schemas moderating the impact of coping on classroom adjustment in secondary school.

Table 3.13: Hierarchical regressions testing the moderating impact of schemas on classroom adjustment at assessment 3.

Independent variables	Beta	T	F for each step (df)	Adjusted R²	R²change	F inc (df)
Equation 1						
Step 1: Classroom adjustment at assessment 1	0.41	2.53*	7.14 (1,36)**	0.14	0.16	7.14 (1,36)**
Step 2: Schemas	0.49	0.47	3.51 (2,35)*	0.12	0.00	0.08 (1,35)
Step 3: Active coping	0.43	0.52	2.29 (3,34)	0.09	0.00	0.03 (1,34)
Step 4: Active coping * schemas	-0.50	-0.50	1.74 (4,33)	0.07	0.01	0.25 (1,33)
Equation 2						
Step 1: Classroom adjustment at assessment 1	0.42	2.60**	7.14 (1,36) **	0.14	0.16	7.14 (1,36)**
Step 2: Schemas	-0.01	-0.12	3.51 (2,35)*	0.12	0.00	0.07 (1,35)
Step 3: Avoidance	-0.02	-0.02	2.36 (3,34)	0.10	0.01	0.21 (1,34)
Step 4: Avoidance* schemas	-0.07	-0.07	1.72 (4,33)	0.07	0.00	0.00 (1,33)

Table 3.13 continued

Independent variables	Beta	T	F for each step (df)	Adjusted R ²	R ² change	F inc (df)
Equation 3						
Step 1: Classroom adjustment at assessment 1	0.39	2.36*	6.26 (1,35)*	0.13	0.15	6.26 (1,35)*
Step 2: Schema	-0.19	-0.18	3.22 (2,34)*	0.11	0.01	0.31 (1,34)
Step 3: Distraction	-0.15	-0.12	2.10 (3,33)	0.08	0.00	0.04 (1,33)
Step 4: Distraction * schemas	0.16	0.09	1.53 (4,32)	0.06	0.00	0.01 (1,32)
Equation 4						
Step 1: Classroom adjustment at assessment 1	0.50	3.08**	8.59 (1,35)**	0.17	0.20	8.59 (1,35)**
Step 2: Schema	0.46	0.56	4.20 (2,34)*	0.15	0.01	0.05 (1,34)
Step 3: Support	0.46	0.40	3.30 (3,33)*	0.16	0.03	1.39 (1,33)
Step 4: Support * schemas	-0.73	-0.57	2.51 (4,32)	0.14	0.01	0.33 (1,32)

* p < 0.05; ** p < 0.01; *** p < 0.001

3.6 Correlations between schemas and change scores

The apparent absence of mediating or moderating impact of schemas may be due to secondary school transition not being stressful and therefore not activating schemas to start with. Thus findings could reflect the fact that transition to secondary school is not difficult with schemas therefore not employed, as opposed to schemas having no impact on how children experience stressful events.

Sub-analyses of the impact of schemas on only those children whose scores deteriorated after transition, or found the transition difficult, may be a better test for schema effects. Ideally, sub-analysis would be performed on children who showed clinically significant deterioration after transition. Unfortunately, very few children clinically changed by 2 standard deviations in total difficulties scores at assessment 2 (3 children) or assessment 3 (1 child). Therefore, point bi-serial correlations were performed between schema measures, coping sub-scales and change scores at assessments 2 or 3 (0 = improved post transition; 1 = deteriorated post transition). It was predicted that there would be significant relationships between schemas and coping sub-scales with deterioration after transition. As Table 3.14 indicates, there were no statistically significant relationships between schema or coping measures and change scores at both assessments 2 and 3. The only moderate correlation of above 0.3 was that between the CSEBQ and change in total difficulties at assessment 3 ($r = -0.31$). Children who had negative peer schemas in primary schools were more likely to improve in secondary school than those with positive schemas. These results again suggest that there is little relationship between either schemas or coping with children's difficulties following a stressor.

Table 3.14: Correlations between schema and coping measures with change scores

	Total difficulties at assessment 2 ^a	Total difficulties at assessment 3 ^b	Classroom adjustment at assessment 3 ^b
CSEBQ	0.03	-0.31	0.10
POP	-0.02	-0.17	0.03
POS	-0.17	0.09	-0.04
Schema composite measure	-0.09	-0.13	0.03
Active coping	-0.01	-0.08	-0.15
Avoidance	0.11	-0.20	-0.14
Distraction	0.00	0.04	0.11
Support seeking	0.07	0.17	-0.18

^a Change scores are self rated total difficulties assessment 2 – total difficulties at assessment 1.

^b Change scores are self rated total difficulties or teacher rated adjustment assessment 3 – total difficulties at assessment 1.

CHAPTER 4: DISCUSSION

This study examined the impact of schemas on reactions to secondary school transition. A one group prospective design was employed, with children being assessed in their primary school and twice in their first term of secondary school. Contrary to prediction, there appeared to be no negative impact of transferring school on emotional or behavioural difficulties, and academic ability did not moderate the impact of transition. There was no evidence to suggest that schemas mediated or moderated the impact of transition. The theoretical implications of the results will be discussed, before exploring methodological issues affecting the findings. The implications of this study for services and future research will then be outlined.

4.1 Secondary school transition

4.1.1 Prevalence of difficulties in primary and secondary school The number of children falling within an abnormal range of SDQ scores depended on the criterion being applied. Using Goodman (1999) optimum criteria for discriminating between community and psychiatric samples, over 30% of children scored above psychiatric case threshold at each time point. On teacher rated emotional and conduct problems, this figure fell to between 6-14% of children. Using Goodman et al. 's (1998) bands organised so that 10% of community 11-16 year olds are borderline and 10% abnormal, between 3% - 5% of children fell within an abnormal range and between 13%-22% were borderline over the three assessment periods. These figures are directly comparable with findings from research using the SDQ. Goodman et al., (1998) found that 5% of a community sample of 11-16 year olds fell within an abnormal range, and 18% within a borderline range on the SDQ.

The findings are also compatible with other epidemiological research. Bird (1996) in a review of epidemiological studies, reported that the over-all population prevalence rates for child and adolescent mental health disorders range from 12.4 – 51.3 with a mean of 29% (Bird, 1996). In their review, Target & Fonagy (1996) state that psychiatric impairment among children and adolescents is estimated between 10-33%, and give a consensus on a prevalence rate of diagnosable disorder of around 20%. Variation in estimates is accounted for by differences in populations studied, sampling, definition of disorders, informants and data collection methods (Davis, Day, Cox & Cutler, 2000). The highest rates tend to be in inner city areas and in adolescents (Peterson & Leffert, 1995; Rutter, Cox, Tupling, Berger & Yule, 1975). In a recent community based study of children and adolescents aged 0-16 in an inner London borough, similar to the one studied in the current research, Davis et al., (2000) cite 37% of children as having three or more psychological problems, and 25% as expressing a need for help. Thus, problem prevalence in the present sample was similar to other community studies.

The differences between children's and teachers' ratings of difficulty deserves comment. Overall, children were more likely to report difficulties than were teachers. There was poor agreement between children's and teachers' ratings of emotional disorders but more concordance between their ratings of conduct problems. There was also greater agreement between primary school teachers and children than between secondary school teachers and children.

Poor agreement between children and other informants is well-documented in the literature on children and adolescent psychopathology. Goodman et al. (1998) reported low agreement between teachers' and children's ratings of SDQ sub-scales in a community sample, with correlation coefficients ranging between 0.19-0.31. However, in contrast with the present study, there was significant agreement between teachers and children's ratings of emotional symptoms ($r = 0.31$). Klein (1991) in her review of parent-child agreement reported low concordance between parents and children in discrete symptom rating and over the presence of diagnoses. Typically, parents are more likely than children to report conduct problems whereas children are more likely to report emotional problems than parents.

In the current study, differences between children and their teachers may reflect response biases, with children prone to exaggeration and teachers to under-reporting. They also suggest that teachers may not be adept at judging children's emotional state, under-reporting subjective distress. Primary school teachers may be better at judging a child's over-all state than secondary school teachers, perhaps because they are in much greater contact with each individual child than their secondary counterparts, teaching the same children every day, and have known children longer.

4.1.2: Impact of secondary school transition There was no evidence to support the hypothesis that secondary school transition negatively affects children's well-being, either from teacher or children rated measures. There was no significant change in children's self reported total difficulties, conduct problems, inattention-hyperactivity and peer related problems or classroom adjustment after transition, although there was a suggested decrease in self-rated pro-social behaviour on reaching secondary

school. In addition, only 3% - 8% of children showed clinically significant deterioration on self reported total difficulties during their first term of secondary school.

Indeed, contrary to a predicted increase in problems, there was some evidence that some problems improved after the transfer. Self reported emotional problems decreased after secondary school transition. In addition, emotional problems and conduct problems were rated lower by secondary school teachers than by primary school teachers.

Over-all therefore, the results imply that children's strengths and difficulties remain stable from primary to secondary school. Indeed, between 23% - 45% of variance in self-reported difficulties at secondary school was explained by difficulties in primary school. Children's symptom levels in primary school remained the same in their first term of secondary school.

These findings contrast with other prospective studies that have reported negative impact of transition, including decreases in self-esteem in the first year of secondary school (Blyth et al., 1978; Seidman et al., 1994; Wigfield et al., 1991). This is despite the fact that the study's sample was at high risk of experiencing transition problems, being from an inner city, and having high levels of diversity and social disadvantage (Seidman et al., 1994; Simmons et al., 1991). Instead, the findings concur with other studies that report stability in difficulties between primary and secondary school or some positive effects of the transfer (Forgan & Vaughn, 2000; Hirsch & Rapkin, 1987; Nettleman, 1987).

There are several possible explanations for the apparent stability in problems. Moving to secondary school may not be difficult for the majority of children, or a very small factor in predicting psychological difficulties. Caprara & Rutter (1995) argue that young people's psychopathology is influenced by multiple environmental and biological factors like individual differences in vulnerability to environmental risks, multiple adversities, cognitive processing of experiences and timing of experiences. Against the myriad of factors influencing early adolescent's well-being, the impact of a normative stressor like school transition may be hardly detectable.

This does not preclude the possibility that transition is not important for a sub-section of children. Changing school may interact with other variables, like other acute or chronic stressors and family environment to produce problems for sub-groups of children. For instance, Roeser, Eccles & Freedman-Doan (1999) identified sub-groups of well adjusted and poorly adjusted children in elementary school. Whilst there was long-term continuity in the self-esteem of these groups from elementary to high school, there were deteriorations over time in perceived academic competence and academic motivation within the poorly adjusted groups. These declines were particularly pronounced in the period encompassing the transfer to middle school made at age 10/11. Roeser, Eccles & Freedman-Doan (1999) argued that mal-adjusted sub-groups may start on a destructive pathway in early adolescence, with increasing use of inappropriate behaviour and skills determining later social and occupational outcomes.

Positive effects of transition to secondary school may be attributed to positive changes in the school environment. In their small study of 14 children, Forgan & Vaughn (2000) found that children preferred middle school to elementary school, citing increased independence, changing classes, making new friends and liking teachers, whilst acknowledging the disadvantages of their new school like increased academic competition, being victimised and teachers not taking a personal interest. The child may also feel more grown-up in a new big school with older children. In addition, a change in peer and teacher network may be conducive to increases in well-being. A child may have left behind peers or teachers that he or she had significant problems with. Emotional support and discipline may be better at secondary schools than in the feeder primary schools. More formal teaching and monitoring of discipline in secondary schools may for example decrease conduct problems.

The lack of negative transition effect may be specific to the present sample of children coupled with its cultural and school environment. The sample comprised mainly of boys. Some studies have found that boys' self-esteem is less vulnerable to transition problems than girls' self-esteem (Blyth et al., 1978; Blyth et al., 1983; Hirsch & Rapkin, 1987). Whilst boys' self esteem remains stable, girls' self-esteem decreases over transition (Blyth et al., 1978). Using predominantly boys may have led to an under-estimation of transition problems experienced by all school children. The results may reflect experiences of current British children, who are within a different educational environment from previously researched cohorts or from their North American counterparts studied in the majority of research cited. Finally, these results may be specific to the type of secondary school studied. This school had

many procedures in place for easing the transition from primary school, including good liaison between primary and secondary school staff and thorough induction and monitoring of all pupils. Thus, the result may be a product of the sample being male, the British educational system or the practices of the secondary school.

4.1.3 Academic ability as a moderator of transition impact: There was no evidence to support the hypothesis that academic ability moderates the impact of transition. In ANOVAs there were no significant interactions between whether or not a child was on the primary school's register of Special Educational Need, or their English and Maths SATs results with total difficulties at any assessment point. Thus problem levels remaining stable from last term in primary school to the first term of secondary school regardless of academic ability.

Again, this finding contradicts earlier reports that children with higher academic ability, measured typically by grade point average and teachers' ratings, have higher self-concepts or self-esteem post transition (Chung et al., 1998; Lord et al., 1994). Instead, they support Forgan & Vaughn's (2000) finding that both children with and without specific learning disabilities reacted similarly to school transition.

This finding that academic ability made no difference to the experience of transition may relate to the characteristics of the population sampled. A very small minority of children performed above the national average, with the majority achieving below average results in standardised tests. With so many children falling below average in a school, academic ability may cease to affect transition. Children may be more accepting of poor academic standards in peers, and teachers may have different

expectations of children and be better equipped to deal with poor academic attainment. Alternatively, it may be that only having above average attainment protects from transition effects. Perhaps this sample did not have enough children performing at this level to detect an effect.

Alternatively this result could be a product of the indices used to measure academic ability. Grade point averages on standardised tests (SATs) could be confounded by differences between primary schools. All primary schools had a similar intake of children, but their performance in obtaining average or above average SAT scores differed, partly reflected in whether or not they were designated as passed, improved or on special measures by Ofsted. Thus, grades may reflect less about differences between children in academic competence than teaching practices in primary schools.

4.1.4 Academic ability and children's difficulties and classroom adjustment.

Whilst measures of academic ability did not appear to put children more at risk of increased problems post-transition, they were related to outcome measures both in primary and secondary school. Children placed on the SEN register at primary school had greater self-rated difficulties at all assessments than those children not on the register. Children on the SEN register had higher scores of inattention-hyperactivity at all assessments, but did not significantly differ from other children in emotional, conduct or peer problems. In contrast, grades on standardised tests were not significantly related to difficulties. These results imply that being placed on a register of special needs, rather than general academic ability, is a marker of risk of psychological difficulties, and in particular those of inattention-hyperactivity.

Placement on the Special Educational Needs register indicates that a child is judged by teachers or other professionals as not making sufficient progress in a mainstream setting. This child is then provided with additional help depending on their level of need. Lack of progress may be caused by a myriad of factors, including specific disabilities not adequately met by the educational environment. According to the current study, poor progress may reflect emotional/behavioural difficulties. Thus poor progress is apparently a marker for complex problems, a fact well recognised within the school system with many children on SEN register having multiple agencies involved including educational welfare; educational psychologists and social services. An alternative interpretation of this result is that being placed on a register, requiring special help and being labelled, may negatively affect children's ratings of psychological well-being. Being on a SEN register may make children sensitive to their difficulties and more likely to rate these than other children, or may actually exacerbate or cause difficulties.

Analysis of teacher rated classroom adjustment yielded different findings. This time, there was no significant effect of being on the SEN register or maths grades on adjustment in primary school and late in the first term of secondary school. However, both primary and secondary teachers rated those children who performed well in standardised English tests higher in classroom adjustment than their less accomplished peers.

Given the increased levels of psychological difficulties in children on the SEN register, it is somewhat surprising that they do not differ from other children in their

classroom adjustment which includes ability to learn independently, to learn within a group and to abide by school boundaries/rules. Children on the SEN register were similar to their peers in conduct, emotional and peer problems, only differing on hyperactivity-inattention. One might hypothesise that conduct difficulties or peer problems would be more obviously disruptive to classroom behaviour than perhaps poor concentration and restlessness.

The finding that better English grades are related to teachers' ratings of classroom adjustment is interesting. Children whose English is good might be better able to benefit from the classroom setting, with much learning depending on understanding the written and spoken word. Verbal ability may also increase the ability to understand and comply with teachers.

Children with high English grades may have greater powers of expression in the classroom. This may have several effects. First, communication skills may improve peer relationships and thus ability to perform in a group setting. However, grades in English were not significantly related to self-rated peer problems. Secondly, these children may come to the notice of teachers and be perceived as good students because of their communication skills. If this is the case, teachers may confuse good classroom adjustment, including obedience and ability to learn, with good communication. The fact that maths results were unrelated to ratings of classroom adjustment seems to support this interpretation. One might expect maths grades would be equally affected by adjustment to independent and group learning and by whether or not a child follows school rules.

In conclusion, academic ability had no impact on the experience of transition. However, being on the SEN register is a marker for emotional and behavioural difficulties in primary and secondary schools, perhaps because these difficulties impair learning or because being on the register negatively affects the child's self-image and well-being. Teacher-rated classroom adjustment is related to ability in English tests, perhaps because children with good literacy and verbal ability are better able to deal with the demands of the classroom, or because they come to the favourable notice of their teachers.

4.2 Impact of schemas

The current study tested two alternative models of the impact of interpersonal schema on mood: the schema triggered affect model in which stressful events directly mediate emotion, and the behavioural priming model in which interpersonal schema moderate emotions by increasing specific coping strategies (Shirk, 1998).

There was no support for schemas either mediating or moderating children's self-reported difficulties or teacher rated classroom adjustment. In a series of hierarchical regressions in which the impact of difficulties in primary school was statistically controlled for, schemas did not predict a significant amount of variance in outcome early or late in the first term of secondary school, indicating that it did not mediate transition difficulties. In addition, after confounding variables of difficulties in primary school, schemas and coping variables were partialled out, the interaction of schemas and coping failed to predict significant variance in outcome variables in the first term of secondary school, implying no moderating effect of schemas.

One explanation for these disappointing findings might be that the transition to secondary school was insufficiently stressful and hence did not prime schemas. If this were the case, there would be no impact of schemas because they would not be activated. One might expect to see an effect only on those children adversely affected by the transition. The sample was too small to perform sub-analysis on the very few children who showed a definite adverse reaction to transition, namely clinically significant deterioration in their first term. Instead, rudimentary analysis revealed no relationship between schemas and whether or not children improved or deteriorated following transition. Again, this suggests no relationship between schemas and reactions to school transition. However, given that children were simplistically divided into those who positively or negatively changed independent of magnitude of change, these results should be treated cautiously. An effect of schema might only be detectable in children who have extreme reactions to transition.

Therefore, once previous emotional and behavioural difficulties are statistically controlled for, schemas appear to have no impact on emotions or behavioural difficulties following secondary school transition. If we take this result to be genuine, rather than a product of schemas not being activated by the transition, there are several possible theoretical explanations for this unexpected result.

On a theoretical level, it may be that primary school children do not have a generalised peer schema that applies to all encounters with other children. Instead, children may have schemas specific to a particular interpersonal context. Thus, children may have had one schema for primary school children or even schemas for

individual class-mates, which were no longer applicable or used within a new school context. Some support for this interpretation comes from children's reactions to completing the schema measures. Those that asked about perceptions of peers elicited questions like "Do you mean what would my best friend do, or other class mates?" "Which kids do you want me to think about?". This would also explain the discrepancy between the results of this study and Rudolph et al.'s (1997) study employing the same peer schema measures. The positive relationships between peer schemas, depression and teacher rated peer rejection in Rudolph et al.'s (1997) cross-sectional study may reflect the impact of *on-going peer relationships* and beliefs about these on *current* mood, an issue not examined in this study. This explanation is in keeping with theoretical accounts of inter-personal schemas which describe the co-existence of multiple schemas specific to unique relationships and contexts (Baldwin, 1992; Horowitz, 1991). It goes against other accounts of interpersonal schemas that describe generalised schema which are stable and applied across relationships (eg. Dodge, 1993; Young, 1994). Thus, schemas in primary school may have been specific to individual peer relationships and may have been inapplicable in a new peer environment.

Children may not have acquired the ability or tendency to think abstractly about their relationships. In their review, Leffert & Petersen (1995) describe adolescents developing more advanced cognitive abilities, including an increased ability for abstract reasoning and thinking. This enables them to think about situations hypothetically. The children in this sample spanned the period of middle childhood-early adolescence (ages 10-11), and were only at the outset of this period of cognitive development. Rather than having general heuristics about peer relationships, they

may think in very concrete terms about specific peers and contexts. This may have affected their ability to complete the measures employed, which required hypothetical thinking. Thus, the measures used may not have been a developmentally appropriate way of accessing schemas. In addition, this implies that children spanning the middle-childhood/early adolescent period may not have the cognitive ability to have abstract schemas that exist independently of concrete relationships. This is a somewhat contentious claim, contradicting both theoretical accounts (eg. Dodge, 1993; Main et al., 1985; Young, 1994) and research (Main et al., 1985) claiming that generalised mental representations or schemas develop in early childhood.

The fact that schemas did not predict mood may have been because the impact of prior mood was statistically controlled for. Segal (1988) reported that in prospective studies depressive schema are mood congruent, and do not persist once people are no longer depressed. Schema status at initial testing typically does not predict adult depression at 4 month follow up, with peoples' initial mood being the best predictor. Similar findings were obtained in this study. When both measurements were taken at assessment 1, there was a significant relationship between total difficulties and schemas ($r = 0.41$, $p < 0.01$). In contrast, there were weak, non-significant correlations between schemas measured at assessment 1 and difficulties measured at subsequent assessments ($r = 0.21-0.23$). Segal (1988) interpretation of his review findings could apply to the current study: negative constructs about the self are more accessible in low mood and mood has a confounding impact on relationships between self-report measures.

Thus, mood may precede or prime negative self and other constructs, rather than an underlying negative schema which *differs* between depressed and non-depressed people affecting future mood as this study supposed. For instance, Segal (1988) outlines an accessibility model of depression in which there are differences in the accessibility, rather than content or interconnectedness, of self-constructs between depressed and non-depressed people. In this model, depressed mood increases and maintains the accessibility of negative cognitive structures. In the absence of low mood, the accessibility of negative self constructs is no longer dominant.

In addition, this study ensured that any relationship between schemas and mood was not a method artefact by controlling for previous difficulties. Cross-sectional studies employing self-report or information processing measures do not preclude this possibility. Segal (1988) argued that negative constructs, like self-rated adjectives or negative cognitions, are more likely to be activated in a particular mood as a result of their *affective content* rather than cognitive content. Watson & Pennebaker (1988) contend that negative affectivity is a confounding construct that can inflate cross-sectional correlations between self-report measures containing similar affective material eg. negative schemas and difficulties.

In conclusion, this study showed non-significant relationships between schemas and difficulties, but it has not disproved the original hypothesis that schemas mediate emotions following a stressful event, or moderate emotions by affecting coping strategies. The results do not preclude the possibility that schemas are specific to relationships, rather than being generalisable across peer relationships. It may be that it is these specific schemas that exert an impact on mood. In addition, the

transition apparently was not difficult for the majority of children, and it may be that the impact of schemas only becomes apparent when they are activated under extreme stress.

Finally, the non-significant results are still compatible with the suggestion that mood affects schema accessibility, and that it is this relationship that accounts for reports in cross-sectional research that schemas are related to psychological problems (Segal, 1988). In addition, the possibility remains that the findings reflect the fact that schemas do not induce mood or psychological problems.

4.3 Impact of coping

There was little evidence that coping mediates or moderates difficulties either from cross-sectional analysis at assessment 2, or from prospective analysis of outcome at assessment 3. Thus, after controlling for prior difficulties, active coping, seeking social support, avoidance and distraction failed to explain a significant amount of variance in self-rated difficulty scores at assessment 2 and 3, or teacher-rated classroom adjustment at assessment 3. Again controlling for initial difficulties, independent analysis of each coping strategy failed to find any moderating impact of active coping, avoidance, distraction or seeking social support on total difficulties and class room adjustment at assessment 2 or at assessment 3. Thus, there appeared to be little impact of coping strategies employed at secondary school upon concurrent or future difficulties. The exception to this conclusion was that avoidance at assessment 2 did predict 9% of the variance in total difficulties 8 weeks later at assessment 3. Greater levels of avoidance were associated with less experience of difficulties 8 weeks later.

These results are worth commenting on in the light of other research on adolescent coping. Research on adolescent coping tends to follow the model of coping proposed by Lazarus & Folkman (1984) in which stress is a dynamic transaction between the person and their environment (Frydenberg, 1997). Within this model, coping is the outcome of cognitive appraisals, whereby an event is initially evaluated with respect to what is at stake and what resources and coping strategies are available. Coping affects health outcomes as well as impacting on the person's environment.

Summarising adolescent coping research is complicated by the many taxonomies and measures of coping in existence. Several studies have used the measure employed in this research, the CCSC, to evaluate the impact of divorce on children. In a 3 month prospective study, Weyer & Sandler (1998) reported no significant relations between active coping, avoidance, support seeking and distraction with divorce related ruminations in cross-sectional and longitudinal analyses. Longitudinal analyses revealed that it was only children's perceptions that they coped effectively that led to decreased ruminations. Sandler, Tein & West (1994) conducted a five month investigation of stress, coping and psychological symptoms of children of divorce, again using the CCSC. In cross-sectional analyses, they reported that avoidance mediated the relationship between stress and depression, anxiety and conduct problems, with higher levels of avoidance correlating with greater symptoms. Active coping moderated the impact of stress on conduct disorders, with higher levels of active coping related to less disorder. In longitudinal analyses, active coping and distraction predicted low levels of internalising symptoms, whilst support coping

predicted subsequent depression. They concluded that avoidance may prevent children from actively working to change the problem situation or cognitively focusing on the event to think about it in a more positive way. They suggested that stress leads to increased use of avoidance which in turn leads to higher symptoms, though the effect of avoidance may dwindle over time.

Other longitudinal studies of coping also find that avoidance is related to dysfunctional outcomes. In contrast, active or approach coping involving orienting oneself toward a threat and dealing directly with problems, tends to be associated with good functioning. Avoidance behaviours have been related to poorer overall adjustment and metabolic control a year after diabetes diagnosis (Grey, Lipman, Cameron & Thruber, 1997). Herman, Mindy, Stemmer & Petersen (1995) in a year long longitudinal study reported that avoidant copers reported the most symptoms of depression and approach copers reported the fewest symptoms of depression. In a comparative study of healthy adolescents with adolescents with rheumatic disease, conduct disorder or depression, Ebata & Moos (1991) concluded that avoidant coping is related to poor well-being, whilst approach coping is related to increased well-being. The current study appears to contradict this body of research both by failing to find a relationship between active coping and less difficulties, and by finding that avoidance predicts *less* difficulties 8 weeks later.

There are several reasons why coping variables failed to predict difficulties in this study. It may be that difficulties at secondary school were primarily a product of daily hassles and/or cognitive appraisals of these. Once an event occurs, like being teased or late for class, and it is appraised as threatening or harmful to the self,

coping strategies may have little impact. This study did initially incorporate a measure of appraisal to establish its impact on difficulties and coping (Appraisal of Life Events: Ferguson, Matthews & Cox, 1999). This was developed for use with college students, and it quickly became apparent in administration that its vocabulary was too complex for the developmental level of the current sample. It was therefore abandoned, but the study might have been improved by directly measuring both stressful events arising from the transition and children's appraisals.

Efficacy of coping in relation to specific situations may have been more important to well-being and class-room adjustment than children's general perceptions of how they typically cope. Therefore, poor measurement of coping efficacy may explain why in coping bore little relationship to difficulties. In measuring efficacy, the specific context of a problem has to be considered because one coping strategy may not be effective over all contexts or all times (Seiffge-Krenke, 1993). The CCSC tapped children's coping style, or their perceptions of how they consistently react across situations, rather than the actual cognitive and behavioural actions used in specific situations (cf. Frydenberg, 1997). The measure may not have adequately assessed the appropriate match of coping strategies with specific demands of school transition. For instance, it may be that active coping is only effective in dealing with controllable stressors, like doing homework, and less effective for uncontrollable stressors like being disliked by a teacher.

Research indicates that avoidance is often related to poor functioning, and in this respect the current study contradicts previous findings. However, as already discussed, the functional value of a strategy cannot be divorced from its context

(Frydenberg, 1997). Horowitz (1982) argued that avoidant coping is a normal strategy that occurs whilst an event is being cognitively integrated, and is an index of psychological distress about an event. Thus, initially avoidance may help to minimise distress, perhaps only leading to adverse outcomes if the strategy persists and prevents a person actively engaging with a problem. Frydenberg (1997) also cites that escape and avoidance are sensible normal strategies to employ when emotional valence is high, and controllability and changeability of the demand is low. It may be that avoiding initial stressors at secondary school is a good strategy in the short term in preventing distress and difficulties from escalating, and in giving children time to integrate new experiences without being over-whelmed. Avoidance would particularly be useful if many of the stressors at secondary school seem uncontrollable e.g. having to frequently change lessons, being in the same class as children you dislike. Unfortunately, this study cannot tell us anything about the long- term impact of avoidance for this sample.

4.4 Methodological critique of the study

This study had a number of strengths. It addressed important research questions yet to be thoroughly addressed. These included whether and how children's schema affect their future mood under stress, and how children's psychological characteristics affect their experience of changing to secondary school. It studied an under-researched sample in the transition literature, namely children from British inner city schools. It employed a prospective design that allowed exploration of the impact of schemas on subsequent mood, controlling for the confounding impact of prior mood. It examined the impact of schemas on reactions to a real event, and in this respect gained ecological validity. However, this study suffers from several

methodological problems which limit the conclusions that can be reached from the findings. These will be outlined alongside suggestions for future research.

Using a one group prospective design made it difficult to study the precise impact of transition. Ideally, a control group of same aged children who did not undergo transition would have been used. This would allow for the control of maturational and historical factors. For example, Blyth et al., (1978) reported that changing school affects normal development. Children who changed school did not share the same increase in self-esteem as those children who remained at the same school. Clearly the current study was unable to pick up such an effect. Unfortunately, the UK's educational system makes it impossible to recruit a control group of similar aged children from a similar background not undergoing transition. In the absence of a control group, a direct measure of the stress imposed by transition would have improved assessment of the impact of transition.

Timing of assessments also affected the type of transition effect detected. This study only provided a measure of the short-term impact of transition. It may be that taking measurements later in the first year of secondary school, once a honeymoon period was over, may have detected a transition effect. However, this is unlikely given that research that has detected deterioration following transition has done so early in the first year of secondary school (Seidman et al., 1994; Wigfield et al., 1991).

In a more serious problem, symptom improvements noted in secondary school may have been artefact of assessment timing and number. The primary school assessment was taken in the last few weeks of term, when children's psychological well-being

may have been temporarily lowered by the prospect of leaving their familiar school. Well-being may have dissipated to a usual level once children reached their new school. This regression to the mean may have been accelerated by a realisation that the secondary school was not as “bad” as children imagined whilst in primary school. Unfortunately, having only one assessment in primary school prevented an examination and control of regression to the mean. Establishing a better baseline, by perhaps using two or three assessments of difficulties in primary school, would have aided interpretation of apparent stability in some and improvement in other symptoms across transition.

Lack of statistical power also affected the type of transition effect that could be detected by this study. The sample was small, only half that required to detect the small effect size of 0.28 obtained in the Seidman et al. (1994) research. A lack of power may therefore have led to a Type II error, with a genuine transition effect being missed. One could argue though that the sample was adequate to detect a large effect size. Other than Seidman et al., (1994), previous studies do not provide sufficient raw data to calculate effect sizes of transition, and the majority use samples of the magnitude of 200 – 500 pupils which would be enough to detect small, significant effects. Thus, any genuine transition effect missed through poor power would perhaps have been small and potentially of limited clinical significance.

In addition, the alpha co-efficients of the sub-scales of self-reported Strengths and Difficulties Questionnaire were weak reducing power and increasing the chance of a Type II error. Had the study employed a larger sample and used alternative outcome measures, a large effect of transition may have been detected.

The use of different teachers as informants in primary and secondary school affected the interpretability of the impact of transition. The reduction in teacher ratings of emotional and conduct problems may have reflected differences between teachers rather than actual change in children. Differences in ratings of symptoms at primary and secondary school may be a product of teachers' different knowledge of individual children, with primary school teachers being more familiar with the children than secondary school teachers. Alternatively, response biases of teachers may have led to less difficulties being rated in secondary school. Secondary school teachers may have a higher threshold for rating a behaviour as difficult because they deal with a wider range of potentially disturbed children compared to primary school teachers. The lack of correlations, or stability/agreement, between teachers' ratings in primary and secondary school supports these interpretations. Using parents or carers who know children both in primary and secondary schools would have controlled for these problems.

The study may not have enabled the activation, hence accurate study of schemas. Secondary school transition did not appear to be a major stressor for this group of children, and may not have activated schemas. Studying a more demanding event for children would provide a better test of whether stressful interpersonal events activate schemas, triggering emotion (Shirk, 1998). Traumatic acute stressors, like death or disasters, and severe chronic stress bear more relationship to maladjustment than normative or generic stress like school transitions (Compas, Orosan & Grant, 1993). Prospective or longitudinal research that focused on the impact of schema on adjustment to these stressors may be more revealing than the current study.

In addition, schemas may be latent structures that must be activated or primed for their accurate assessment (Baldwin, 1992; Shirk, 1998). A minority of studies of children have therefore employed mood induction tasks before measuring schema, and report that cognitive vulnerability only becomes apparent under negative mood induction (Kelvin et al., 1999; Taylor & Ingram, 1999). In the current study, schemas were measured under normal conditions at primary schools. Dependent on each child's life circumstances, schemas may have been activated for some but not all children and hence not accurately measured.

The construct validity of schema measures appeared to be compromised. Children seemed to answer questions in relation to specific friendships rather than beliefs and expectations about peers in general. These measures may therefore reflect peer social support, friendship quality or specific relationship schemas rather than generic peer schemas. In addition, some authors suggest that schemas are automatic and unconscious, and therefore cannot be assessed at all through self-report (Baldwin, 1992; Shirk, 1998). Baldwin (1992) also points out that self-report measures are subject to defensive, self-presentation distortions. Therefore, inaccurate assessment may explain the lack of relationship between schemas and subsequent mood.

Finally, there were problematic issues surrounding the sample used in this study. Only one secondary school was targeted for study to control for the impact of secondary school characteristics on transition. A more ambitious study of transition effects would benefit from studying feeder primary schools and multiple secondary schools, within the same Local Education Authority. In addition, only 53% of

parents approached allowed their children to participate in the study. This low response rate was largely accounted for by the non-return of consent forms. These parents may not be representative of the inner London population being studied, perhaps being more involved with the children's schooling or less chaotic than the other 47%. A more pro-active recruitment policy might have yielded a larger, more representative sample. This might have involved translating consent forms; telephone calls or visits to the children's homes. However, teachers reported that parental attendance at school events and completion of medical and school trip forms were also very poor in this area. It may have been that the response rate would always have been low in this particular Local Education Authority.

4.5 Service implications

These results have implications both for educational and mental health services.

Transition seems not to affect the majority of children. Problems in primary school persist at a similar level in secondary school. However, children's difficulties seemed less likely to be noticed by their new secondary school teachers. Secondary school teachers were less likely than primary school teachers to report either conduct or emotional problems. In addition, primary school teachers seemed more in touch with children's own experiences. These findings imply the need for *early* detection of troubled children and intervention. Primary schools may play a particularly important role in this, with a smaller school size and regular contact with one teacher potentially easing monitoring and support for children. The findings also suggest the need for close liaison between primary and secondary school teachers before transition. This would ensure that secondary schools are aware of vulnerable and/or

disruptive children, and can monitor or provide extra support for them. This may require a confidential report for the secondary school from primary school teachers on each child's apparent well-being and behaviour, as well as academic performance.

Given that for most children there is stability in symptoms across transition, children who react badly to transition may have other co-existing difficult life events, chronic stressors or mental health problems that pre-date transition. Secondary school staff need to be aware that apparent difficulties with transition may be a marker of more chronic problems that require quick assessment, and potentially intervention, from an appropriate professional before further deterioration eg. educational welfare officer or mental health worker.

Primary and secondary schools could play an important role in referring children to appropriate mental health resources. A third of children in school are experiencing problems typical of children attending psychiatric out-patient clinics. This finding is in keeping with other community samples, but is high and therefore alarming none the less. Children with problems may not receive the mental health help that they require. Parents or carers may not recognise difficulties in the children, and not present to their GP. Schools can be an additional route for early detection and access to mental health services. Indeed, schools and teachers already often detect potential problems and alert appropriate authorities e.g. parents, social services, educational psychologists.

One way that both secondary and primary schools can help in treatment of children's mental health would be to provide in-house professional help, which would reduce

the need for referral to child psychiatry. The secondary school studied already had a school counsellor, whom children could refer themselves to. There is literature on other school based services, like mental health services for troubled refugee children, run by an outreach mental health worker (O'Shea, Hodes, Down & Bramley, 2000). Another means of schools helping troubled children to access help would be to have close liaison between education and local child and family services. For example, a designated mental health worker might liaise regularly with school staff to keep them informed of local services and referral routes, and to help in identifying and offering help to troubled children. Such liaison could also be beneficial to teachers if they were given supervision or training on containing behavioural and emotional problems within the classroom.

For either of these strategies to work, children who are in need of mental health services require identification. One means of doing this is to have children refer themselves for help, but this is not ideal. Children may not realise that they could benefit from professional input, and may be reluctant to present to perhaps stigmatised services in school break or after school when they could be doing something fun instead. Teachers could be relied on to refer children. However, it appeared from this study that both primary and secondary school teachers may be less adept at spotting children's emotional compared to conduct problems. A child's subjective suffering from internalising problems may frequently go undetected. This implies that an alternative form of mental health screening is required. Having a system of school-wide mental health screening as part of general school based medical care, with parental consent, would identify individual children and groups of children at risk of psychological problems. For reasons of confidentiality, any

screening would need to be conducted by personnel separate from the educational functions of the school. In this respect, school nurses could play an important part in both assessment and referral to appropriate services. Mental health would then be a standard part of the school nurse's agenda. If nurses were to extend their role in this way, they would require support and supervision from local child and family psychiatric or psychological services. Since this study, discussions on the feasibility of screening have begun between school nurses serving the secondary school studied and local psychology services

The high levels of distress amongst children on the SEN register implies that this sub-group deserves special monitoring for mental health needs. Special Needs Coordinators and staff could play an important role in this respect, and may require some training in how psychological problems may manifest themselves in children. This is especially the case given that not all children have access to educational psychology, and that SEN staff have regular contact with children. If emotional issues are interfering with learning, psychological input should be available alongside extra learning support. This would require SEN staff to have good access to psychological or psychiatric services, again either through school-based services or through close links with local health services.

4.6 General summary

This prospective study studied the impact of children's peer relationships schema on emotional and behavioural difficulties experienced after secondary school transition. Its aims were to build on the schema literature by exploring the longitudinal

relationship between relational schema and emotional and behavioural difficulties, and to examine the impact of secondary school transition on children.

The study found no evidence for a negative effect of transition, or for academic ability moderating the impact of transition. However, being on a Special Educational Register was related to emotional and behavioural difficulties in both primary and secondary school. Schemas did not appear to mediate or moderate emotional and behavioural difficulties, once the impact of initial difficulties was controlled for. Active coping, avoidance, distraction and seeking social support also had no mediating or moderating impact on concurrent difficulties. Only avoidant coping had an impact on difficulties measured 8 weeks later, with high levels of avoidance linked to better well-being.

A number of methodological problems affect the reliability and validity of the results. These include the absence of a control group of children not undergoing transition; limited baseline assessments and short term follow up of transition effects; poor power increasing the likelihood of Type II errors and problems with the measurement of schema.

Despite these, the study has both theoretical and practical implications. On a theoretical level, this study suggests that school transition may not be stressful for the majority of children, or if it is may only yield a small effect size. The findings are compatible with a number of theoretical accounts of schemas. Schemas may not influence future mood but may instead be a product of concurrent mood, being more accessible in certain affective states. Alternatively, children may utilise specific

relationship schemas, grounded in concrete peer friendships, as opposed to a generic, abstract schema. Finally, coping may be less important to emotional and behavioural difficulties than other variables not measured in this study, including daily hassles, appraisals of stressors and efficacy of coping.

In terms of services, the results imply that schools, in particular primary schools, could play an important role in helping in the early detection of and intervention with children's mental health problems. Children on SEN registers would seem to be a group particularly worth monitoring from mental health needs. Detection and treatment of troubled children would be greatly aided by either school based mental health services or close liaison between educational and local health services.

There are several avenues for future research suggested by this study. In terms of the school transition literature, further research within the British educational system is needed, using large sample sizes to detect pockets of children for whom transition is particularly difficult. Investigation of the psychological variables affecting reactions to transition may also be helpful including daily hassles, appraisals and coping. To determine the causal relationship between schemas and mood, more longitudinal and prospective studies are required that can control for the impact of initial mood. There also needs to be more work on examining what type of schemas children apply to their relationships, and whether these are abstract and generic across relationships or whether these are specific to individual relationships.

REFERENCES

- Ainsworth, M.D.S., Blehar, M.C., Waters, E., & Wall, S. (1978). Patterns of Attachments: A Psychological Study of the Strange Situation. Hillsdale, NJ: Erlbaum 1978.
- Ayers, T.S., Sandler, I.N., West, S.G., & Roosa, M.W. (1996) A dispositional and situational assessment of children's coping: testing alternative models of coping. Journal of Personality, **64**, 923-958.
- Baldwin, M.W. (1992). Relational schemas and the processing of social information. Psychological Bulletin, **112**, 461-484.
- Baron, R.M., & Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. Journal of Personality and Social Psychology, **51**, 1173-1182.
- Bartlett, F.C. (1932) Remembering. Cambridge: Cambridge University Press.
- Bateman, A., & Holmes, J. (1995). Introduction to psychoanalysis. London: Routledge.
- Beck, A.T. (1967). Depression: Clinical, Experimental and Theoretical Aspects. New York: Harper and Row.
- Beck, A.T. (1976). Cognitive Therapy and the Emotional Disorders. New York: International University Press.
- Beck, A.T. (1996). Beyond Belief: A theory of modes, personality and psychopathology. In P.M. Salkovskis (Ed). Frontiers of Cognitive Therapy (pp.1-25). London: Guildford Press.
- Beck, A.T., Freeman, A., Pretzer, J., Davis, D.D., Fleming, B., Ottavani, R., Beck, J., Simon, K.M., Padesky, C., Meyer, J., & Trexler, L. (1990). Cognitive Therapy of Personality Disorders. New York: Guildford Press.

- Berndt, T.J., & Keefe, K. (1995). Friends influence on adolescents adjustment to school. Child Development, **66**, 1312-1329.
- Billings, A.G., & Moos, R.H. (1981). The role of coping responses in attenuating the impact of stressful life events. Journal of Behavioural Medicine, **4**, 139-157.
- Bird, H. (1996). Epidemiology of childhood disorders in a cross-cultural context. Journal of Child Psychology and Psychiatry, **37**, 35-49.
- Blyth, D.A., Simmons, R.G., & Bush, D. (1978). The transition into early adolescence: A longitudinal comparison of youth in two educational contexts. Sociology of Education, **51**, 149-162.
- Blyth, D.A., Simmons, R.G., & Carlton-Ford, S. (1983). The adjustment of early adolescents to school transitions. Journal of Early Adolescence, **3**, 105-120.
- Bowlby, J. (1969). Attachment and Loss Volume 1: Attachment. London: Hogarth Press & the Institute of Psychoanalysis.
- Bowlby, J (1973) Attachment and Loss: Vol 2 Separation Anxiety and Anger. New York: Basic Books.
- Bowlby, J. (1979). The making and breaking of affectional bonds. London: Tavistock Publications.
- Caprara, G.V., & Rutter, M. (1995). Individual development and social change. In M. Rutter & D.J. Smith (Eds.). Psychosocial Disorders in Young People: Time Trends and Causes (pp. 35-66). Chichester: John Wiley.
- Carver, C.S., Scheier, M.F., & Weintraub, J.K. (1989). Assessing coping strategies: a theoretically based approach. Journal of Personality and Social Psychology, **56**, 267-283.

- Chung, H., Elias, M., & Schneider, K. (1998). Patterns of Individual Adjustment changes during middle school transition. Journal of School Psychology, **36**, 83-101.
- Compas, B.E., Orosan, P.G., & Grant, K. (1993). Adolescent stress and coping: Implications for psychopathology during adolescence. Journal of Adolescence, **16**, 331-349.
- Crick, N., & Dodge, K. (1994) A review and reformulation of social information processing mechanisms in children's social adjustment. Psychological Bulletin, **115**, 74-101.
- Davis, H., Day, C., Cox, A., & Cutler, L. (2000). Child and adolescent mental health needs assessment and service implications in an inner city area. Clinical Child Psychology and Psychiatry, **5**, 169-188.
- Dodge, K.A. (1993). Social-cognitive mechanisms in the development of conduct disorder and depression, Annual Review Psychology, **44**, 559-584.
- Dodge, K. & Somberg, D. (1987) Hostile attribution biases among aggressive boys are exacerbated under conditions of threat to the self. Child Development, **58**, 213-224.
- Dodge, K., & Tomlin, A. (1987). Utilisation of self schemas as a mechanism of interpretational bias in aggressive children. Social Cognition, **5**, 280-300.
- Dubow, E.F., & Ullman, D.G. (1989). Assessing social support in elementary school children: The survey of children's social support. Journal of Clinical Child Psychology, **18**, 52-64.
- Elias, M.J., Gara, M., & Ubriaco, M. (1985) Sources of stress and support on children's transition to middle school: an empirical analysis. Journal of Clinical Child Psychology, **14**, 112-118.

- Ferguson, E., Matthews, G., & Cox, T. (1999). The appraisal of life events (ALE) scale: reliability and validity. British Journal of Health Psychology, **4**, 97-116.
- Forgan, J.W., & Vaughn, S. (2000). Adolescents with and without learning disabilities make the transition to middle school. Journal of Learning Disabilities, **33**, 33-43.
- Frydenberg, E. (1997). Adolescent Coping. London: Routledge.
- Goodman, R. (1997). The strengths and difficulties questionnaire: a research note. Journal of Child Psychology and Psychiatry, **38**, 581-586.
- Goodman, R. (1999). The extended version of the strengths and difficulties questionnaire as a guide to child psychiatric caseness and consequent burden. Journal of Child Psychology and Psychiatry, **40**, 791-799.
- Goodman, R., Meltzer, H., & Bailey, V. (1998). The strengths and difficulties questionnaire: a pilot study on the validity of the self report version. European Child and Adolescent Psychiatry, **7**, 125-130.
- Grey, M., Lipman, T., Cameron, M.E., & Thurber, F.W. (1997). Coping behaviours at diagnosis and in adjustment one year later in children with diabetes. Nursing Research, **46**, 312-317.
- Hammen, C. (1988). Self-cognitions, stressful events and the prediction of depression in children of depressed mothers. Journal of Abnormal Child Psychology, **16**, 347-360.
- Hammen, C., & Zupan, B.A. (1984) Self schema , depression and the processing of personal information in children. Journal of Experimental Child Psychology, **37**, 598-608.

- Hammen, C. (1992). Cognitive life stress and interpersonal approaches to a developmental psychopathology model of depression. Development and Psychopathology, **4**, 189-206.
- Herman, S., Mindy, A., Stemmier, M., & Petersen, A.C. (1995). Approach and avoidant coping: implications for adolescent mental health. Journal of Youth and Adolescence, **24**, 649-665.
- Hirsch, B.J., & Rapkin, B.D. (1987). The transition to junior high school: a longitudinal study of self esteem, psychological symptomatology, school life and social support. Child Development, **58**, 1235-1243.
- Horowitz, M.J. (1982). Stress response syndromes and their treatment. In L. Goldberg & S. Brenitz (Eds.). Handbook of Stress: Theoretical and Clinical Aspects (pp 711-733). New York: Free Press.
- Horowitz, M.J. (1991) Person schemas. In M.J. Horowitz, (Ed.) Person Schemas and Maladaptive Interpersonal Patterns (pp. 13-31). Chicago: University of Chicago Press.
- Jacobson, N.S., Roberts, L.J., Berns, S.B., & McGlinchey, J.B. (1999). Methods for defining and determining the clinical significance of treatment effects: description, application and alternatives. Journal of Consulting and Clinical Psychology, **67**, 300-307.
- Jacobson, N.S., & Truax, P. (1991). Clinical significant: a statistical approach to defining clinical change in psychotherapy research, Journal of Consulting and Clinical Psychology, **59**, 12-19.
- Jaenicke, C., Hammen, C., Zupan, B., Hiroto, D., Gordon, D., Adrian, C., & Burge, D. (1987). Cognitive vulnerability in children at risk for depression. Journal of Abnormal Child Psychology **15**, 559-572.

- Kelvin, R.G. Goodyer, I.M., Teasdale, J.D., & Brechin, D. (1999). Latent negative self schema and high emotionality in well adolescents at risk of psychopathology. Journal of Child Psychology and Psychiatry, **40**, 959-968.
- Ketsetzin, M., Ryan, B.A., & Adams, G.A. (1998). Family processes, parent-child interactions and child characteristics influencing school based social adjustment. Journal of Marriage and Family, **60**, 374-387.
- Klein, R.G. (1991). Parent-child agreement in clinical assessment of anxiety and other psychopathology: a review. Journal of Anxiety Disorders, **5**, 187-198.
- Knapp, P.H. (1991). Self other schemas: Core organizers of human experience. In M.J. Horowitz, (Ed.) Person Schemas and Maladaptive Interpersonal Patterns (pp. 81-102). Chicago: University of Chicago Press.
- Kovacs, M. (1980.1981) Ratings scales to assess depression in school aged children. Acta Paedopsychiatry, **46**, 305-315.
- Kurdek, L.A., Fine, M.A., & Sinclair, R.J. (1995). School adjustment in 6th graders. Parenting transitions, family climate and peer norm effects. Child Development, **66**, 430-445.
- Leffert, N., & Petersen, A.C. (1995). Patterns of development during adolescence. In M. Rutter & D.J. Smith (Eds.). Psychosocial Disorders in Young People: Time Trends and Causes (pp. 67-103). Chichester: John Wiley.
- Lazarus, R.S., & Folkman, S. (1984). Stress, Appraisal and Coping. New York: Springer.
- Leung, P.W., & Wong, M.M.T. (1998). Can cognitive distortions differentiate between internalising and externalising problems? Journal of Child Psychology and Psychiatry, **39**, 263-269.

- Lord, S.E., Eccles, J.S., & McCarthy, K.A. (1994). Surviving the junior high school transition: Family processes and self-perceptions as protective and risk factors. Journal of Early Adolescence, **14**, 162-199.
- Main, M., Kaplan, N., & Cassidy, J. (1985) Security in infancy, childhood and adulthood: A move to the level of representation. In I. Bretherton & E. Waters (Eds.) Growing points of attachment theory and research. Monographs of the Society for Research in Child Development, **50** (1-2, Serial no 209).
- Margoilies, P.J., & Weintraub, S. (1977). The revised 56-item CRPBI as a research instrument: Reliability and factor structure. Journal of Clinical Psychology, **33**, 472-476.
- McGinn, L.K., & Young, J.E. (1996). Schema focused therapy. In P.M. Salkovkis (Ed.). Frontiers of Cognitive Therapy (pp.82-207). London: Guildford Press.
- Nottelmann, E.D. (1987). Competence and self-esteem during transition from childhood to adolescence. Developmental Psychology, **23**, 441-450.
- O'Shea, B., Hodes, M., Down, G., & Bramley, J. (2000). A school-based mental health service for refugee children. Clinical Child Psychology and Psychiatry, **5**, 1359-1045.
- Padesky, C.A. (1994). Schema Change Processes in Cognitive Therapy. Clinical Psychology and Psychotherapy, **1**, 267-278.
- Petersen, A., & Leffert, N. (1995). What is special about adolescence? In M. Rutter (Ed.). Psychosocial disturbance in Young People: Challenges for Prevention. Cambridge: Cambridge University Press.
- Piaget, J. (1973). The Child's Conception of the World. London: Paladin.
- Piers, E., & Harris, D. (1969). The Piers-Harris Children's Self-Concept Scale. Tennessee: Counselor Recordings and Tests.

- Prieto, S.L., Cole, D.A., & Tageron, C.W. (1992). Depressive self schemas in clinic and nonclinic children. Cognitive therapy and research, **16**, 521-534.
- Robinson, N.S., Garber, J., & Hilsman, R. (1995). Cognitions and stress: direct and moderating effects on depressive versus externalising symptoms during the junior high school transition. Journal of Abnormal Psychology, **104**, 453-463.
- Roeser R.W., Eccles, J.S., & Freedman-Doan, C. (1999). Academic functioning and mental health in adolescence: patterns, progression and routes from childhood. Journal of Adolescent Research, **14**, 135-174.
- Rudolph, K.D., Hammen, C., & Burge, D. (1995). Cognitive representations of self, family and peers in school-age children: links with social competence and sociometric status. Child Development, **66**, 1385-1402.
- Rudolph, K.D., Hammen, C., & Burge, D. (1997). A cognitive-interpersonal approach to depressive symptoms in preadolescent children. Journal of Abnormal Child Psychology, **25**, 33-45.
- Rutter, M., Cox, A., Tupling, C., Berger, M., & Yule, W. (1975). Attainment and adjustment in two geographical areas. I: The prevalence of psychiatric disorder. British Journal of Psychiatry, **126**, 493-509.
- Safran, J.D. (1990). Towards a refinement of cognitive therapy in light of interpersonal theory: 1. Theory. Clinical Psychology Review, **10**, 87-105.
- Sandler, I.N., Tein, J.Y., & West, S.G. (1994). Coping, stress and the psychological symptoms of children of divorce: a cross-sectional and longitudinal study. Child Development, **65**, 1744-1763.
- Segal, Z.V. (1988). Appraisal of the self schema construct in cognitive models of depression. Psychological Bulletin, **103**, 147-162.

- Seidman, E., Aber, J.L., Allen, L., & French, S.E. (1996). The impact of the transition to high school on the self system and perceived social context of poor urban youth, American Journal of Community Psychology, **24**, 489-515.
- Seidman, E., Allen, L., Aber, J.L., Mitchell, C., & Feinman, J. (1994). The impact of school transitions in early adolescence on the self-system and perceived social context of poor urban youth. Child Development, **65**, 507-522.
- Seiffge-Krenke, I. (1993). Coping behaviour in normal and clinical samples: more similarities than differences? Journal of Adolescence, **16**, 285-303.
- Shirk, S.R. (1998). Interpersonal schemata in child psychotherapy: A cognitive – interpersonal perspective. Journal of Clinical Child Psychology, **27**, 4-16.
- Simmons, R.G., Black, A., & Zhou, Y. (1991). African-American versus White children and the transition to junior high school. American Journal of Education, **99**, 481-520.
- Simmons, R.G., Carlton Ford, S.I., & Blyth, D.A. (1987). Predicting how a child will cope with the transition to junior high school. In R.M. Lerner & T.T. Foch (Eds.). Biological –Psychosocial Interactions in Early Adolescence: a Life Span Perspective (pp. 325-360) Hillsdale: Erlbaum.
- Stark, K.D., Humphrey, L.L., Laurent, J., Livingston, R., & Christopher, J. (1993). Cognitive, behavioural and family factors in the differentiation of depressive and anxiety disorders during childhood. Journal of Consulting and Clinical Psychology, **61**, 878-886.
- Steele, H., Steele, M., & Fonagy, P. (1996). Associations among attachment classifications of mothers, fathers and their infants. Child Development, **67**, 541-555.

- Steele, H, Steele, M., Croft, C., & Fonagy, P. (1999). Infant-mother attachment at one year predicts children's understanding of mixed emotions at six years. Social Development, **8**, 161-178.
- Stovall, G., & Craig, R.J. (1990). Mental representations of physically and sexually abused latency aged females. Child Abuse and Neglect, **14**, 233-242.
- Tabachnick, B.G., & Fidell, L.S. (1989) Using Multivariate Statistics (2nd Ed). New York: Harper Collins.
- Target, M., & Fonagy, P. (1996). The psychological treatment of child and adolescent psychiatric disorders. In A.Roth & P. Fonagy (Eds.). What works for whom? A Critical Review of Psychotherapy Research (pp263-320). London: The Guildford Press.
- Taylor,. L., & Ingram, R.E. (1999). Cognitive reactivity and depressotypic information processing in children of depressed mothers. Journal of Abnormal Psychology, **108**, 202-210.
- Teasdale, J.D., & Barnard, P. J (1993). Affect, Cognition and Change. Hillsdale. NJ: Elrbaum.
- Watson, D., & Pennebaker, J.W. (1989). Health complaints, stress and distress: exploring the central role of negative affectivity. Psychological Review, **96**, 234-254.
- Westen, D. (1991). Social cognition and object relations. Psychological Bulletin, **109**, 429-455.
- Weyer, M., & Sandler, I.N. (1998). Stress and coping as predictors of children's divorce-related ruminations. Journal of Clinical Child Psychology, **27**, 78-86
- Wigfield, A., Eccles, J.S., MacIver, D., Reuman, 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.

Young, J.E. (1994). Cognitive Therapy for Personality Disorders: A Schema Focused Approach. Sarasota: Professional Resource Press.

Zupan, B., Hammen, C., & Jaenicke, C. (1987) The effects of current mood and prior depressive history on self schematic processing in children. Journal of Experimental Child Psychology, 43, 149-158.

APPENDIX 1: ETHICAL APPROVAL



CAMDEN & ISLINGTON
Community Health Services NHS Trust
Your Partner for Health

LOCAL RESEARCH ETHICS COMMITTEE

Research Office, 3rd Floor, West Wing, St. Pancras Hospital, 4 St. Pancras Way,
London. NW1 OPE

tel: 0171 530 3376 fax: 0171 530 3235
e-mail: research.office@dial.pipex.com
Chair: *Stephanie Ellis* Administrator: *Michael Peat*

11th June 1999

Dr Emma Taylor
Sub-Dept. of Clinical Health Psychology
University College London
Gower Street
London
WC1E 6BT

Dear Dr. Taylor

Application No: 99/50 (Please quote in all further correspondence)

Title: *Adaption to secondary school: the role of childhood interpersonal beliefs*

Thank you for your letter dated 11th May 1999. Please accept my apologies for the delay in response. I am pleased to tell you that this project has now been granted ethical approval. Please could you write and inform **Angela Williams** of the start date of your project at the above address.

Please note that the following general conditions of approval apply:

- ◆ Investigators must ensure that all associated staff, including nursing staff, are informed of research projects and are told that they have the approval of the Local Research Ethics Committee.
- ◆ If data are to be stored on a computer in such a way as to make it possible to identify individuals then the project must be registered under the Data Protection Act 1984. Please consult your department data protection officer for advice.
- ◆ The Committee *must* receive immediate notification of any adverse event or unforeseen circumstances arising out of the trial.

- ♦ The Committee *must* receive notification: (a) when the study is complete; (b) if it fails to start or is abandoned; (c) if the investigator/s change; and (d) if any amendments to the study are proposed or made.
- ♦ The Committee will request details of the progress of the research project periodically (i.e. annually) and require a copy of the report on completion of the project.

Please forward any other requested additional information/amendments regarding your study to the Ethics Committee Administrator, at the above address. If you have any queries, please do not hesitate to contact Michael Peat or myself at the above address.

Yours Sincerely



Stephanie Ellis
Committee Chair

APPENDIX 2: INFORMATION FOR HEAD TEACHERS

Adaptation to secondary school: the role of childhood interpersonal beliefs

Y Local Education Authority is co-operating with research looking children's reaction to the move from primary to secondary school. The study will examine whether children's academic achievement; beliefs about friendships with other children, perceptions of secondary school, and coping strategies predict problem levels in the first term of secondary school. On the suggestion of the LEA, X Secondary School has been selected for study. Thus, only children who will be joining X in 1999 will be involved in the study.

This research will provide the LEA and schools with information on how to identify children at risk of secondary school transition problems, and how schools can work with children to prevent these from occurring. A report on the main results will be sent to Y Council Local Education Authority and participating schools. This letter is to ask whether your school will co-operate with the study.

What does the research involve? We will require either the names and addresses of parents whose children will be joining X school, or we will request that the school send parents information sheets and consent forms. We will also ask for the release of children's key stage 3 SAT result.

Children will complete three questionnaire assessments: once at primary school (June/July, 1999) and twice in the first term of secondary school (September and December, 1999). Questionnaires will be administered in school to small groups of children by the study investigator. Each assessment will take a maximum of 30 minutes of children's and classroom time.

Children will be asked about their beliefs about friendships with other children. They will be asked how they have been feeling and behaving in general over the past month. Once in secondary school, children will be asked about how they perceive their new school and how they have coped with settling in. At no point will children be asked about his or her home life, family, school history or teachers.

We will ask children's form teachers to complete a short questionnaire about participating children's behaviour over the last month.

Parental consent and confidentiality All parents will be sent an information sheet about the study, and asked to provide written consent. If parental consent is obtained, children will also be asked for informed consent before participating.

The questionnaires completed by children and their teachers will be used for research purposes only, and no names will be attached to them. Teachers will not see children's completed forms, and we cannot provide information to parents or teachers about individual children's responses. However, if we find that a child has significant

APPENDIX 2 continued

problems, parents and the school will be consulted, and where indicated the child will be referred to local clinical psychology services.

Who is doing the research? This research is being conducted by Dr Emma Taylor, and employee of Camden and Y Community Health Services NHS Trust, as part of a Doctorate in Clinical Psychology. Dr Taylor is being supervised by Dr Peter Fuggle, Head of Child and Family Psychology Services, Camden and Y Community Health NHS Trust and Dr Chris Barker, University College London.

Are there any drawbacks in this research to children? All the questions completed by children ask about both good and bad experiences, and have been developed and tested with children aged 10-12 years. We consider it highly unlikely that any of these questions will cause new problems or distress. However, the investigator will be present to talk to children should they wish to discuss any worries brought to mind by the study.

If you have any concerns that we have not taken into account, please contact Dr Emma Taylor at the above address. Thank you for attending to this information sheet.

APPENDIX 3: PARENTAL INFORMATION AND CONSENT FORM

Adaptation to secondary school: the role of childhood interpersonal beliefs

Dear Parent

Your child's school is co-operating with research looking at the move from primary to secondary school. This will help us to understand why children find this move demanding, and what helps them cope with it. The research should help the Local Education Authority, schools and other professionals in making the move to secondary school as easy as possible for children. This letter is to invite your child to take part.

What does the research involve? Children will be seen in school time once in the summer term of primary school, and twice in the first term of secondary school. They will be seen as part of a small group, and asked to fill in some brief questionnaires which are especially designed for children their age. These questionnaires ask about the child's beliefs about their friendships; how they have been feeling and behaving in general over the past month; their perceptions of their new school and how they are coping with settling in. We will also ask for your child's SAT result. We will also ask class teachers about each child's behaviour over the past month. At no point will your child be asked about his or her home life or family.

We consider it highly unlikely that any of these questions will cause new problems or distress. However, the investigator will be present to talk to children should they wish to discuss any worries brought to mind by the study.

Why is my child being chosen to take part? We are approaching all children who will be joining X Secondary School in 1999. X has been chosen because it is big and takes both boys and girls.

Is the research confidential? Yes. The questionnaires completed by your child and their teachers will be used for research purposes only, and no names will be attached to them. Teachers will not see the forms your child completes. However, if we find a child is having problems, we will discuss how best to help them with parents and schools.

Who is doing the research? This research is being conducted by Dr Emma Taylor as part of a Doctorate in Clinical Psychology. Dr Taylor is being supervised by Dr Peter Fuggle, Camden and Y Community Health NHS Trust and Dr Chris Barker, University College London.

Who should I contact if I have any questions? Dr Emma Taylor at the above address.

APPENDIX 3 continued

Please complete the attached form. Your child does not have to take part in this study if he or she does not want to. If your child does decide to take part, they may withdraw at any time without having to give a reason. Your child's decision to take part or not will not affect their schooling or teaching in anyway.

All proposals for research using human subjects are reviewed by an ethics committee before they can proceed. This proposal was reviewed by the Camden and Y Community Health Services NHS Trust Ethics Committee.

APPENDIX 3 continued

Parent Consent Form

Adaptation to secondary school: the role of childhood interpersonal beliefs

Investigators: Dr Emma Taylor, Dr Peter Fuggle, Dr Chris Barker

Please complete this form and return it to your child's class teacher.

Tick as necessary

I have read the letter about this study

YES **NO**

I understand that I am free to withdraw my child from this study at any time without giving a reason

YES **NO**

Do you agree that your child may take part in this study?

YES **NO**

Signed

Date

Name in block letters

Thank you for your help

APPENDIX 4: CHILDREN'S INFORMATION AND CONSENT FORM

INFORMATION FOR CHILDREN (TO BE READ BY INVESTIGATOR, PRIOR TO QUESTIONNAIRE ADMINISTRATION)

My name is Emma Taylor. I am interested in how children feel about leaving primary school and going to secondary school. I want to find out what helps children to settle in to their new school. I am trying to meet as many children as I can who may be going to X School in the autumn. After I have seen you today, I am planning to come and see you in your first term in your new school, if that will be OK with you.

I am inviting you to help me. If you take part, you will be asked to do some questionnaires, which have been especially made for children your age which ask you about what you think about other children, how you feel and your thoughts about going to your new school. What you tell me will not be given to your teachers or parents. However, if I feel a child might be helped by other people knowing about their worries, I may talk to their parents or school about my concern and how best to help them.

If you find anything hard to understand, or you would prefer to do the questionnaires with me, just ask. This is not a test, and there are no right answers.

I would be very pleased if anyone wants to ask about what I have said. If you have any worries about the questionnaires, I hope you'll be able to tell me straight away.

If after you have started you feel that you want to stop, then that will be fine.

Do you have any questions?

APPENDIX 5: ASSESSMENT BATTERIES

ASSESSMENT 1

Adaptation to secondary school

Subject number:

Date:

WHAT I THINK OTHER KIDS DO (CESBQ)

I'm going to read you some stories and I want you to listen to each one carefully. You may not have really been in all of these situations, but just pretend that they are happening to you. After each one, I'll read you three choices. Listen to all three of them and then circle the answer that you think best tells what the other kids would do if this really happened. Remember to listen to all of the choices before you choose one.

1. You're on the playground at lunchtime and one of the older kids comes up and starts to pick on you. What do you think the kids in your class might do?
 - a. They might just walk away so that they don't get picked on also.
 - b. They might stick up for me and tell the older kid to leave me alone.
 - c. They might join in with the older kid and start teasing me also.

2. You're thinking about running for president of your class and you ask a friend to help you make up some posters to hang around the school. What do you think she might say?
 - a. She might tell me that she knew I would win and would help me make posters.
 - b. She might say that I'd never win anyway so it's not worth it to root for me.
 - c. She might say that she's really busy and has a lot of her own things that she has to do.

- 3. You're working on a group project with some other kids at school and you make a suggestion for something that you could all do. What do you think they might say?**
- a. They might laugh and say that it was a pretty stupid idea,
 - b. They might just pretend that I didn't say anything and ignore my idea.
 - c. They might try it out to see if it would work.
- 4. You're really excited to go to school one day because it's your birthday and you can't wait to see the other kids. What do you think would happen that day in school?**
- a. The other kids might not even remember that it was my birthday and wouldn't say anything.
 - b. The other kids might play a mean joke on me for my birthday.
 - c. The other kids might say happy birthday to me, and maybe even give me cards or presents.
- 5. You're feeling kind of upset about something that happened one morning at home and you decide to try and talk about it with a friend during playtime. As soon as the bell rings, you walk over to her and start to tell her about your problem. What do you think she might do'?**
- a. She might listen to my problem and try to make me feel better.
 - b. She might tell me that I always seemed to have problems and I should stop bothering her.
 - c. She might just walk away and say that she wants to play with the other kids,
- 6. You go to a birthday party and bring your friend a present that you picked out really carefully for her because you were sure she would like it. All the kids give her their presents and then you give her yours. What do you think she might do when you give it to her?**
- a. She might just leave it on the floor and play with all of her other presents.
 - b. She might say that she really likes my present and thank me for it.
 - c. She might tell me that she liked the other kids' presents better.
- 7. You really like another kid in your class and you decide to ask her to come over to your house to play after school. What do you think she might say?**
- a. She might say that I was weird and that she didn't want to play with me.
 - b. She might say that she had too many other things that she had to do.
 - c. She might say that she would really like to come over and play.

8. You're playing football with some kids at school and someone kicks the ball in the air straight to you. You run to catch the ball but you drop it. What do you think the other kids might do?

- a. They might tell me that it was OK that I dropped the ball because everyone does sometimes.
- b. They might just ignore me and not say anything.
- c. They might yell at me and tell me that I'm going to make them lose the game.

9. You see some kids playing a game during playtime one day, so you go over and ask if you can play with them. What do you think that they might say?

- a. They might say mean things about me and tell me to go away.
- b. They might just act like I wasn't even there and keep playing.
- c. They might tell me to join in the game and make room for me.

10. The teacher yells at you in class because she thinks that she saw you passing a note to another kid. You know that you really didn't pass the note. What do you think that the kids sitting next to you might do?

- a. They might just not say anything at all to the teacher.
- b. They might stick up for me and tell the teacher that I didn't pass it.
- c. They might pretend that I really did pass it and get me in trouble.

11. A friend of yours promised to sleep over at your house one weekend, but then somebody else invites her to a party. What do you think that she might do?

- a. She might tell me that the sleepover would be boring and go to the party instead.
- b. She might say that she was going to come over to my house anyway.
- c. She might pretend that she forgot about the sleepover and go to the party.

12. You're running across the playground and you trip and fall. Your arm really hurts so you start to cry a little. What do you think the other kids on the playground would do?

- a. They would come over and ask me if I was OK.
- b. They would laugh at me and call me a baby for crying.
- c. They would just keep playing and ignore me.

13. One day a kid that you didn't know is really nice to you and asks you to play with her at playtime. The next day you see her with some of her friends and decide to go up and ask her to play with you. As you walk up, her friends start to tease you. What do you think she might do?

- a. She might tell them that I was pretty nice and they should let me play with them.
- b. She might act cool around her friends and pretend that she doesn't know me.
- c. She might join in with the group and start laughing at me.

14. You see some kids playing a game and ask if you can join them. They say 'yes' and you start playing, but you're having some trouble remembering all the rules so you sometimes mess up. What do you think they might do'?

- a. They might get angry and tell me I was ruining the game.
- b. They might explain the rules to me again so that I could learn to play.
- c. They might just walk away and stop playing the game.

15. You have to finish a science project by the end of the week, but you still have a lot of work to do on it. You ask a friend of yours if she can help you one day after school. What do you think she might say?

- a. She might say that she already had plans with other kids and didn't have time.
- b. She might say that it was kind of a dumb project and she didn't want to work on it.
- c. She might agree to help me out on it for a little while.

Well done! Please wait for instructions before turning the page

WHAT AM I LIKE? (POS)

For every sentence, please ring the answer that best describes what you think that you are like.

	Not at all	A little bit	Pretty much	Ver. Much
1. There are a lot of things about me that other kids really like	1	2	3	4
2. I am a lot of fun to be with	1	2	3	4
3. Once I am friends with some-one, I know how to keep them as a friend	1	2	3	4
4. When other kids do not want to be around me, it's probably because there is something wrong with me	1	2	3	4
5. Sometimes I feel like I'm too different from other kids to fit in	1	2	3	4
6. I have always been the kind of kid who makes friends really easily	1	2	3	4
7. It's a waste of other kids' time to be friends with me	1	2	3	4
8. Kids like to be around me because I can be a really good friend	1	2	3	4
9. If another kid has something I want, I am <u>not</u> good at getting a turn with it.	1	2	3	4
10. I am <u>not</u> very good at getting other kids to let me join in their games	1	2	3	4
11. I am good at helping other kids to feel better when they are upset	1	2	3	4
12. If another kid makes me angry or sad, I am <u>not</u> good at standing up for myself	1	2	3	4
13. I am good at making other kids laugh	1	2	3	4
14. I can usually get other kids to play the games that I suggest	1	2	3	4
15. If I get into a fight with another kid, I am <u>not</u> really good at ending it.	1	2	3	4

Well done! Please wait for instructions before turning the page

WHAT ARE OTHER KIDS LIKE? (POP)

For every sentence, please ring the answer that best describes what you think that other kids are like.

	Not at all	A little bit	Pretty much	Ver Muc
1. Other kids are pretty helpful when you need them	1	2	3	4
2. Other kids can sometimes be pretty mean	1	2	3	4
3. Other kids will try to put you down or tease you if they have a chance	1	2	3	4
4. Other kids are pretty easy to get along with	1	2	3	4
5. Other kids will try to cheer you up when you are upset	1	2	3	4
6. You never really know how other kids are going to act	1	2	3	4
7. Other kids can <u>not</u> be trusted	1	2	3	4
8. Other kids are really out to get you	1	2	3	4
9. Other kids usually like you, even if you have some faults	1	2	3	4
10. Once you get into a fight with a friend it probably means they will <u>not</u> be friends with you anymore	1	2	3	4
11. Friends will take your side when other kids make fun of you	1	2	3	4
12. Once you are friends with someone, they usually stay friends with you	1	2	3	4
13. Friends usually stick up for you when you are in trouble	1	2	3	4
14. Friends often leave you out when there are other kids around to play with	1	2	3	4
15. Friends may gossip about you when you are not around	1	2	3	4

Well done! Please wait for instructions before turning the page

MY STRENGTH AND DIFFICULTIES (SDQ)

For each sentence, please ring the number that best describes how things have been for you over the last six months (since Christmas) . It would help if you answer all the questions as best you can even if you are not sure or the sentence seems daft!

	Not True	Somewhat True	Certainly True
1. I try to be nice to other people. I care about their feelings	0	1	2
2. I am restless, I cannot stay still for long	0	1	2
3. I get a lot of headaches, stomach-aches or sickness	0	1	2
4. I usually share with others (for example food, games, pens)	0	1	2
5. I get very angry and often lose my temper	0	1	2
6. I am usually on my own. I generally play alone or keep to myself	0	1	2
7. I usually do as I am told	0	1	2
8. I worry a lot	0	1	2
9. I am helpful if some-one is hurt, upset, or feeling ill	0	1	2
10. I am constantly fidgeting or squirming	0	1	2
11. I have one good friend or more	0	1	2
12. I fight a lot. I can make other people do what I want	0	1	2
13. I am often unhappy, down-hearted or tearful	0	1	2
14. Other kids my age generally like me	0	1	2
15. I am easily distracted, I find it difficult to concentrate	0	1	2
16. I am nervous in new situations, I easily lose confidence	0	1	2

17. I am kind to younger children	0	1	2
18. I am often accused of lying or cheating	0	1	2
19. Other children or young people pick on me or bully me	0	1	2
20. I often volunteer to help others (parents, teachers, children)	0	1	2
21. I think before I do things	0	1	2
22. I take things that are not mine from home, school or elsewhere	0	1	2
23. I get on better with adults than with kids my own age	0	1	2
24. I have many fears, I am easily scared	0	1	2
25. I finish the work I am doing, my attention is good	0	1	2

**THAT'S IT – YOU ARE FINISHED.
THANK YOU FOR ALL YOUR HELP.**

ASSESSMENT 1 AND 3: TEACHER'S QUESTIONNAIRE

STRENGTH AND DIFFICULTIES FORM

Pupil's name _____

SAT results: English _____
 Maths _____
 Science _____

Level of statement (if any) _____

EAL (English as a 2nd language) _____

Date:

Child's Identification number:

Class teacher/ head of year/ other (please delete as appropriate):

For each item, please ring the number that best describes how things have been for the child over the last six months.

	Not true	Somewhat True	Certainly True
1) Generally obedient, usually does what adults request	0	1	2
2) Often complains of headaches, stomach aches or sickness	0	1	2
3) Often has temper tantrums or hot tempers	0	1	2
4) Many worries, often seems worried	0	1	2
5) Often fights with other children or bullies them	0	1	2
6) Often unhappy, down hearted or tearful	0	1	2
7) Often lies or cheats	0	1	2
8) Nervous or clingy in new situations, easily loses confidence	0	1	2
9) Steals from home, school or elsewhere	0	1	2
10) Many fears, easily scared	0	1	2
11) Has adjusted to independent learning in the classroom	0	1	2
12) Has adjusted to learning within groups in the classroom	0	1	2
13) Has adjusted to school rules/boundaries	0	1	2

In terms of what you might predict for the future schooling of this child, do you think they:

	Not true	Somewhat True	Certainly True
Overall, will adjust to secondary school	0	1	2

THANK YOU FOR YOUR HELP.

ASSESSMENT 2

Adaptation to secondary school

Investigators: Dr Emma Taylor, Dr Peter Fuggle and Dr Chris Barker

Please write your name:

Please write your birthday:

Please tick your answer

I am happy to complete these questions

YES NO

Thank you for your help

Subject number:

HICUPS

When children change schools, they think or do many different things to help make this situation better or to make themselves feel better. Please tell us how much you have thought or done each of the different things listed below to try and make things better at x school or to make yourself feel better about being at X school. There are no right or wrong answers, just mark how often you have done each of these things during your time at X school.

SINCE STARTING SECONDARY SCHOOL, WHEN I HAVE HAD A PROBLEM I

1) Thought about what I could have done before I did something

Never	Sometimes	Often	Most of the Time
1	2	3	4

2) Went bicycle riding

Never	Sometimes	Often	Most of the Time
1	2	3	4

3) Did something to make things better

Never	Sometimes	Often	Most of the Time
1	2	3	4

4) Figured out what I could do by talking with one of my friends

Never	Sometimes	Often	Most of the Time
1	2	3	4

5) Watched TV

Never	Sometimes	Often	Most of the Time
1	2	3	4

SINCE STARTING SECONDARY SCHOOL, WHEN I HAVE HAD A PROBLEM I

6) Talked about how I was feeling with my mother or father

Never	Sometimes	Often	Most of the Time
1	2	3	4

- 7) **Told myself it would be over in a short time**
Never Sometimes Often Most of the Time
1 2 3 4
- 8) **Went for a walk**
Never Sometimes Often Most of the Time
1 2 3 4
- 9) **Talked to my brother or sister about how to make things better**
Never Sometimes Often Most of the Time
1 2 3 4
- 10) **Tried to put it out of my mind**
Never Sometimes Often Most of the Time
1 2 3 4

SINCE STARTING SECONDARY SCHOOL, WHEN I HAVE HAD A PROBLEM I

- 11) **Tried to notice or think about only the good things in life**
Never Sometimes Often Most of the Time
1 2 3 4
- 12) **Reminded myself that things could be worse**
Never Sometimes Often Most of the Time
1 2 3 4
- 13) **Tried to solve the problem by talking with my mother or father**
Never Sometimes Often Most of the Time
1 2 3 4
- 14) **Tried to stay away from the problem**
Never Sometimes Often Most of the Time
1 2 3 4
- 15) **Imagined how I'd like things to be**
Never Sometimes Often Most of the Time
1 2 3 4

SINCE STARTING SECONDARY SCHOOL, WHEN I HAVE HAD A PROBLEM I

16) Avoided problems by going to my room
Never Sometimes Often Most of the Time

1 2 3 4

17) Talked with my brother or sister about my feelings
Never Sometimes Often Most of the Time

1 2 3 4

18) Tried to figure out what I could do by talking to an adult who is not in my family
Never Sometimes Often Most of the Time

1 2 3 4

19) Went skateboard riding, roller skating or roller blading
Never Sometimes Often Most of the Time

1 2 3 4

20) Listened to music
Never Sometimes Often Most of the Time

1 2 3 4

21) Tried to stay away from things that made me feel upset
Never Sometimes Often Most of the Time

1 2 3 4

22) Tried to make things better by changing what I did.
Never Sometimes Often Most of the Time

1 2 3 4

SINCE STARTING SECONDARY SCHOOL, WHEN I HAVE HAD A PROBLEM I

23) Thought about which things were best to do to handle the problem
Never Sometimes Often Most of the Time

1 2 3 4

24) Did some exercise

Never	Sometimes	Often	Most of the Time
1	2	3	4

25) **Read a book or magazine**

Never	Sometimes	Often	Most of the Time
1	2	3	4

26) **Talked with one of my friends about my feelings**

Never	Sometimes	Often	Most of the Time
1	2	3	4

27) **Thought about why problems happened**

Never	Sometimes	Often	Most of the Time
1	2	3	4

SINCE STARTING SECONDARY SCHOOL, WHEN I HAVE HAD A PROBLEM I

28) **Did something like video games or a hobby**

Never	Sometimes	Often	Most of the Time
1	2	3	4

29) **Waited and hoped that things would get better**

Never	Sometimes	Often	Most of the Time
1	2	3	4

30) **Thought about what would happen before I decided what to do**

Never	Sometimes	Often	Most of the Time
1	2	3	4

31) **Thought about what I could learn from the problem**

Never	Sometimes	Often	Most of the Time
1	2	3	4

32) **Thought about what I needed to know so I could solve the problem**

Never	Sometimes	Often	Most of the Time
1	2	3	4

SINCE STARTING SECONDARY SCHOOL, WHEN I HAVE HAD A PROBLEM I

33) **Played sports**
Never Sometimes Often Most of the Time
1 2 3 4

34) **Avoided the people who make me feel bad**
Never Sometimes Often Most of the Time
1 2 3 4

35) **Told myself its not worth getting upset about**
Never Sometimes Often Most of the Time
1 2 3 4

36) **Wished that things were better**
Never Sometimes Often Most of the Time
1 2 3 4

37) **Talked about how I was feeling with some adult who is not in my family.**
Never Sometimes Often Most of the Time
1 2 3 4

SINCE STARTING SECONDARY SCHOOL, WHEN I HAVE HAD A PROBLEM I

38) **Did something to solve the problem**
Never Sometimes Often Most of the Time
1 2 3 4

39) **Tried to understand it better by thinking more about it**
Never Sometimes Often Most of the Time
1 2 3 4

40) **Did something in order to get something good out of it.**
Never Sometimes Often Most of the Time
1 2 3 4

41) **Tried to figure out why things like that happen**
Never Sometimes Often Most of the Time
1 2 3 4

MY STRENGTH AND DIFFICULTIES (SDQ)

For each sentence, please ring the number that best describes how things have been for you over the last month. It would help if you answer all the questions as best you can even if you are not sure or the sentence seems daft!

	Not True	Somewhat True	Certainly True
1. I try to be nice to other people. I care about their feelings	0	1	2
2. I am restless, I cannot stay still for long	0	1	2
3. I get a lot of headaches, stomach-aches or sickness	0	1	2
4. I usually share with others (for example food, games, pens)	0	1	2
5. I get very angry and often lose my temper	0	1	2
6. I am usually on my own. I generally play alone or keep to myself	0	1	2
7. I usually do as I am told	0	1	2
8. I worry a lot	0	1	2
9. I am helpful if some-one is hurt, upset, or feeling ill	0	1	2
10. I am constantly fidgeting or squirming	0	1	2
11. I have one good friend or more	0	1	2
12. I fight a lot. I can make other people do what I want	0	1	2
13. I am often unhappy, down-hearted or tearful	0	1	2
14. Other kids my age generally like me	0	1	2
15. I am easily distracted, I find it difficult to concentrate	0	1	2

16. I am nervous in new situations, I easily lose confidence	0	1	2
17. I am kind to younger children	0	1	2
18. I am often accused of lying or cheating	0	1	2
19. Other children or young people pick on me or bully me	0	1	2
20. I often volunteer to help others (parents, teachers, children)	0	1	2
21. I think before I do things	0	1	2
22. I take things that are not mine from home, school or elsewhere	0	1	2
23. I get on better with adults than with kids my own age	0	1	2
24. I have many fears, I am easily scared	0	1	2
25. I finish the work I am doing, my attention is good	0	1	2

**THAT'S IT – YOU ARE FINISHED.
THANK YOU FOR ALL YOUR HELP.**

ASSESSMENT 3

Adaptation to secondary school

Investigators: Dr Emma Taylor, Dr Peter Fuggle and Dr Chris Barker

Please write your name:

Please tick your answer

I am happy to complete these questions

YES NO

Thank you for your help

Subject number:

MY STRENGTH AND DIFFICULTIES (SDQ)

For each sentence, please ring the number that best describes how things have been for you over the last month. It would help if you answer all the questions as best you can even if you are not sure or the sentence seems daft!

	Not True	Somewhat True	Certainly True
1. I try to be nice to other people. I care about their feelings	0	1	2
2. I am restless, I cannot stay still for long	0	1	2
3. I get a lot of headaches, stomach-aches or sickness	0	1	2
4. I usually share with others (for example food, games, pens)	0	1	2
5. I get very angry and often lose my temper	0	1	2
6. I am usually on my own. I generally play alone or keep to myself	0	1	2
7. I usually do as I am told	0	1	2
8. I worry a lot	0	1	2
9. I am helpful if some-one is hurt, upset, or feeling ill	0	1	2
10. I am constantly fidgeting or squirming	0	1	2
11. I have one good friend or more	0	1	2
12. I fight a lot. I can make other people do what I want	0	1	2
13. I am often unhappy, down-hearted or tearful	0	1	2
14. Other kids my age generally like me	0	1	2
15. I am easily distracted, I find it difficult to concentrate	0	1	2

16. I am nervous in new situations, I easily lose confidence	0	1	2
17. I am kind to younger children	0	1	2
18. I am often accused of lying or cheating	0	1	2
19. Other children or young people pick on me or bully me	0	1	2
20. I often volunteer to help others (parents, teachers, children)	0	1	2
21. I think before I do things	0	1	2
22. I take things that are not mine from home, school or elsewhere	0	1	2
23. I get on better with adults than with kids my own age	0	1	2
24. I have many fears, I am easily scared	0	1	2
25. I finish the work I am doing, my attention is good	0	1	2

**THAT'S IT – YOU ARE FINISHED.
THANK YOU FOR ALL YOUR HELP.**