Reversal Theory and Mother-Child Compatibility

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by

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I certify that this thesis contains no material that has been accepted for the award of any other higher degree or graduate diploma in any university, and that to the best of my knowledge and belief the thesis contains no copy or paraphrase of material previously published or written by another person, except where due reference is made in the text of the thesis.

The advice I'd give is don't feel obligated to follow through if there is any trait in that kid's personality that seems totally incongruent with your own. Don't feel weird about taking them back and trying somebody else....

Adoptive parent in Grotevant, McRoy and Jenkins (1988)

Abstract

Apter (1982, 1989) and Apter and Smith (1979) reinterpret many problems of the family in terms of the theory of psychological reversals (Smith & Apter, 1975). Apter and Smith hypothesise that many family problems arise out of an incompatibility between family members due to telic/paratelic mode-opposition or conformist/negativist mode-opposition (i.e. two individuals occupying the opposite mode at the same time). One may adduce as further evidence for this suggestion a body of literature in Social Psychology suggesting that we like those who are similar to ourselves and dislike those who are dissimilar to ourselves. Study 1 established construct validity of scales used to measure the somatic (i.e. telic/paratelic, and conformist/negativist) pairs of modes, and provided Australian data for these scales. Studies 2 and 3 established that mode-opposition inhibits mothers' compatibility with vignettes of non-related 10-year-old girls for the telic, paratelic (study 2) and conformist (study 3) modes.

Study 2 suggests that despite metamotivational style, all mothers were most compatible with the highly reversible child (i.e. able to reverse between modes). In retrospect this seems obvious. First, highly reversible people are adaptable both in accommodating the modes of others and to the demands of the present situation. A body of literature suggests that we feel compatible with adaptable individuals. Second, Apter (1989), Murgatroyd and Apter (1984) and Van der Molen (1985) suggest that mentally healthy and well-adjusted individuals need to reverse regularly between modes. Studies 3, 4, 5 and 6 hypothesised that mothers would feel most compatible with highly reversible children, despite metamotivational style for the somatic pairs of modes. The effect occurred in all studies. Moreover, study 4 (where telic or paratelic mothers rated conformist and negativist children, and conformist or

negativist mothers rated telic and paratelic children) suggested that all mothers were most compatible with highly reversible children despite the mothers' own somatic mode.

Results from study 2 also suggest that mode-dominance (i.e. a preference for one mode over the other) produced a global inhibitory effect on mothers' compatibility with children. Again, in retrospect this seems obvious. First, mode-dominant people are ill-adaptable, both in accommodating the modes of others and in responding to demands in the environment. Second, a body of literature suggests that we perceive mode-dominant individuals as difficult. Studies 3, 4, 5 and 6 hypothesised that mothers would feel incompatible with mode-dominant children, despite metamotivational style for the somatic pairs of modes. The effect occurred in all studies. Moreover, study 4 suggested that mothers were incompatible with mode-dominant children despite the mothers' own somatic mode.

Studies 2 and 3 further suggest that despite metamotivational style, mothers were more compatible with the telic and conformist children than the paratelic or negativist children, for whatever reason. It was hypothesised if arousal orientation (i.e. arousal-seeking, arousal-avoiding) is a variable influencing compatibility, its effect should be evident despite somatic mode. The effect occurred in study 4.

Since studies 2 and 3 provided support for the effect of mode-opposition, and the literature indicated that we dislike those dissimilar to ourselves, it was hypothesised that mode-opposition also should inhibit highly reversible mothers' compatibility with mode-dominant children. As studies 2 and 3 did not control reversals between the modes, highly reversible mothers could have been in either mode when rating the children. Studies 5 and 6 tested this hypothesis with the somatic pairs of modes using a mode induction technique

to manipulate the modes of highly reversible mothers. Despite constructing new vignettes to avoid learning effects from re-using previous vignettes, the results were not significant. As the mode induction appeared to have been effective in study 5 (telic/paratelic highly reversible mothers), it is plausible that dominance not mode is the crucial variable determining compatibility due to mode-opposition. In study 6 (conformist/negativist highly reversible mothers) it is likely that the mode induction was ineffective.

The implications of these findings for reversal theory, therapy, and future research were discussed. The results of these studies show that people like highly reversible people.

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Chapter 1

Introduction

Since the inception of Smith and Apter's (1975) theory of psychological reversals, there has been considerable momentum in research activity and development of the theory. Theoretical insights afforded by the theory are penetrating. Practical applications of the theory are ubiquitous. Books reviewing theoretical, empirical and clinical papers of the theory can be found by Apter (1989), Apter, Kerr, and Cowles (1988), Apter, Fontana, and Murgatroyd (1985), Apter (1982).

Reversal theory has successfully reinterpreted a variety of psychological phenomena including family conflicts (Apter, 1982, 1989; Apter & Smith, 1979). For instance, the theory promises to elucidate various contextual and phenomenological aspects of the problematic mother-child dyad. Specifically, reversal theory predicts that incompatibility will arise between members of the same family when they occupy different "frames of minds" or what the theory calls *modes*. This thesis is a study of the effect of these modes on mother-child compatibility.

Chapter 2 introduces the theory and describes tests used to measure the modes. Chapter 3 examines a prediction about the relationship between modes and mother-child compatibility and provides an empirical rationale for studies reported in subsequent chapters.

Confidence in the results of an experiment requires confidence in the tests used to generate those results. Chapter 4 reports a study testing the construct validity of two scales used to measure modes central to this

thesis. Chapter 4 also provides some Australian normative data for samples of University undergraduate students and mothers. The description of the sample of mothers is particularly relevant to subsequent studies.

Chapters 5 to 9 report five studies testing the effect of modes on mother-child compatibility. The progression of thought across the five studies leads to a conclusion markedly different from that implied by the hypothesis in chapter 3. The final chapter considers issues concerned with the demonstration of the modes influence on compatibility between mothers and children. Theoretical and empirical implications of the studies are also discussed here.

Chapter 2

A Theory of Psychological Reversals

Arousal

Smith and Apter (1975) propose a structural phenomenological theory of personality called psychological reversals. "Phenomenology" here concerns subjective experience. The act of riding a bicycle, for instance, may be for transport, exercise or pleasure. Understanding why someone is cycling depends on how the cyclist sees the situation not on how others see it. Clearly, a knowledge of the subjective meaning of the behaviour is essential. "Structural" here refers to the deep abstract structures that underlie and generate surface phenomena. It concerns the way in which features of experience cohere or relate to each other. This structuralism reflects a branch of contemporary structuralism in the social sciences (viz., Lachenicht, 1988). Apter (1989, p. 5) defines structural phenomenology as "The study of the different ways in which the phenomenal field may be structured and the dynamics of transition from one type of structure to another over time. It thus deals systematically with the nature of experience itself at a given time and the changes it undergoes over time."

In the study of the structure of the phenomenal field the aspect of *motivation* assumes importance in understanding human action. Hence, motivational experiences are central to reversal theory. One important aspect of motivation is the feeling of arousal. Arousal here is neither the feeling of being awake or sleepy nor the feeling of how much energy one has. Instead, arousal means how emotionally intense or "worked up" one feels, as when presenting a paper at a conference. Two

major components of arousal are intensity, and pleasantness-unpleasantness (or "hedonic tone," after Beebe-Centre, 1932, cited in Apter, 1989). The question arises how felt arousal and hedonic tone are related.

Optimal arousal theories of motivation (e.g., Hebb, 1955) assume that there is one arousal mode and that the single optimal point for this mode is homeostasis (see inverted U in the lower middle of the curves in Figure 2.1). The main idea of this theory is that pleasure derives from increasing low levels of arousal or decreasing high levels of arousal. The organism achieves maximum pleasure when it reaches the optimal point (Hebb, 1955). Thus, among the problems confronted by optimal arousal theories is that low or high arousal can be pleasant or unpleasant. For instance, one may enjoy relaxing in the bathtub or the excitement of skydiving.

In contrast, reversal theory hypothesises not one arousal mode, but two arousal modes: The arousal-seeking mode, and the arousal-avoiding mode. The term mode here is analogous to "mental state," "frame of mind" or "way of being." Arousal modes are *meta*motivational in that they are not themselves motivational but are about motivation. They involve different ways of organising and interpreting motivation. Figure 2.1 illustrates two hypothetical curves representing the arousal-seeking and arousal-avoiding modes. Note that emotion labels can be attached to the pleasant and unpleasant outcomes of the metamotivational modes. In the arousal-seeking mode one feels high arousal as excitement and low arousal as boredom. In the arousal-avoiding mode one feels high arousal as anxiety and low arousal as relaxation. In this way high arousal or low arousal is experienced as pleasant or unpleasant. Note also that only the arousal-seeking mode or the arousal-avoiding mode operates at any given time and that switches

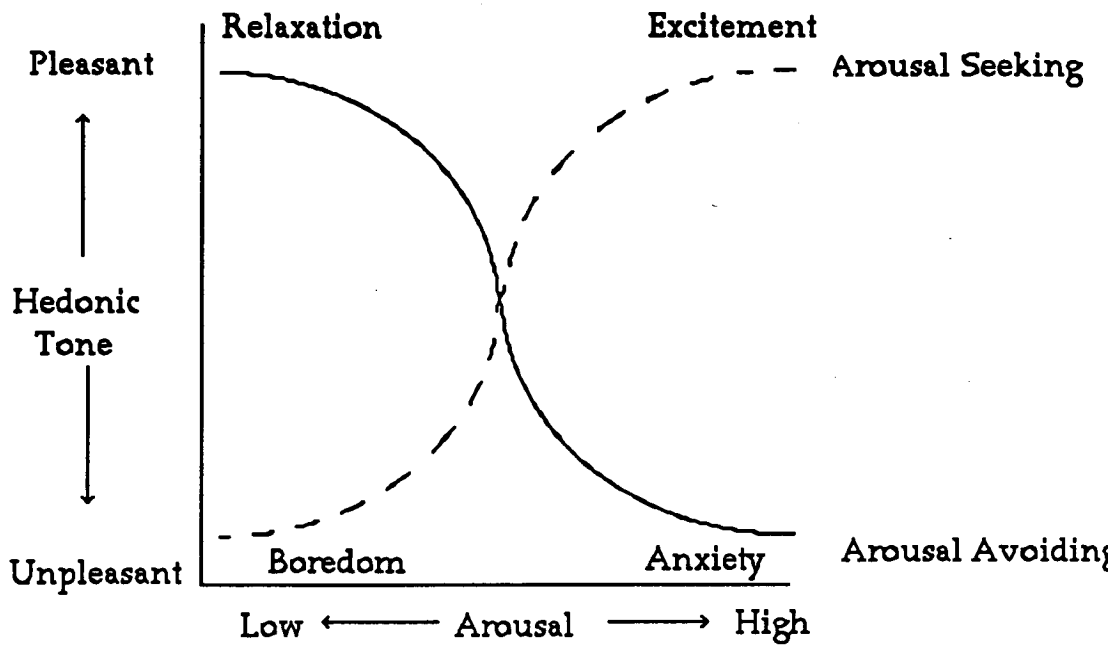

Figure 2.1. The hypothetical curves of the arousal-seeking and the arousal-avoiding modes. The inverted U in the lower middle of the curves shows a form of curve described by optimal arousal theory. Adapted from "Bistability and Arousal" by M. J. Apter, 1982, *The Experience of Motivation: The Theory of Psychological Reversals,* p. 84.

from one mode to the other is a *reversal.* Additionally, the preferred resting state for each mode is not homeostasis but "bistability" (Apter, 1982). Hence the preferred level of arousal may be low or high.

Metamotivational modes must be assumed to be pervasive in that one or the other will be functional throughout waking life. It must be also assumed that the modes are general ways of interacting with any aspect of the world, including people, groups of people, situations and objects.

Telic and Paratelic Modes

Besides feeling aroused, another important aspect of motivation is the

experience of means and end. Ordinarily we are aware of our goals, the means to these goals, and how aroused we feel about the situation. Consider the cases of (a) studying to pass an exam, and (b) playing tennis (after Apter, 1989). In the first case one selects the means to achieve the end. The means is secondary while the end is primary. In the second case one selects the end to achieve the means (e.g., have fun). The means is primary while the end is secondary. Thus, means or ends can be experienced as pleasant or unpleasant. It appears then that means-end is a second pair of metamotivational modes that make opposite interpretations of an aspect of motivational experience. As with the arousal modes only one mode applies at a given time, which allows for the possibility of reversing between one and the other over time.

The metamotivational mode in which the goal is primary is called the "telic" mode (after ancient Greek word *telos*, meaning "end" or "goal"). In the telic mode one is purposive, goal-oriented and aware of the outcome of ones actions. One considers low levels of arousal as beneficial and relaxing and high levels as inhibitory and anxiety provoking (see Figure 2.2). The metamotivational mode in which the activity is primary is called the "paratelic" mode. The word "goal" remains in the term paratelic to show that there is a goal in this mode albeit different from that in the telic mode. In the paratelic mode one is spontaneous and present-oriented. One sees low levels of arousal as unpleasant and boring and high levels as pleasant and exiting.

In Figure 2.2 the telic mode is associated with the arousal-avoidance mode and the paratelic with the arousal-seeking mode. In the telic mode one appears to shift up and down the curve shown by arousal-avoidance. In the paratelic mode one appears to shift up and down the curve shown by arousal-seeking. Note that the emotions attached to the pleasant and unpleasant outcomes of each of the modes are identical with those of the

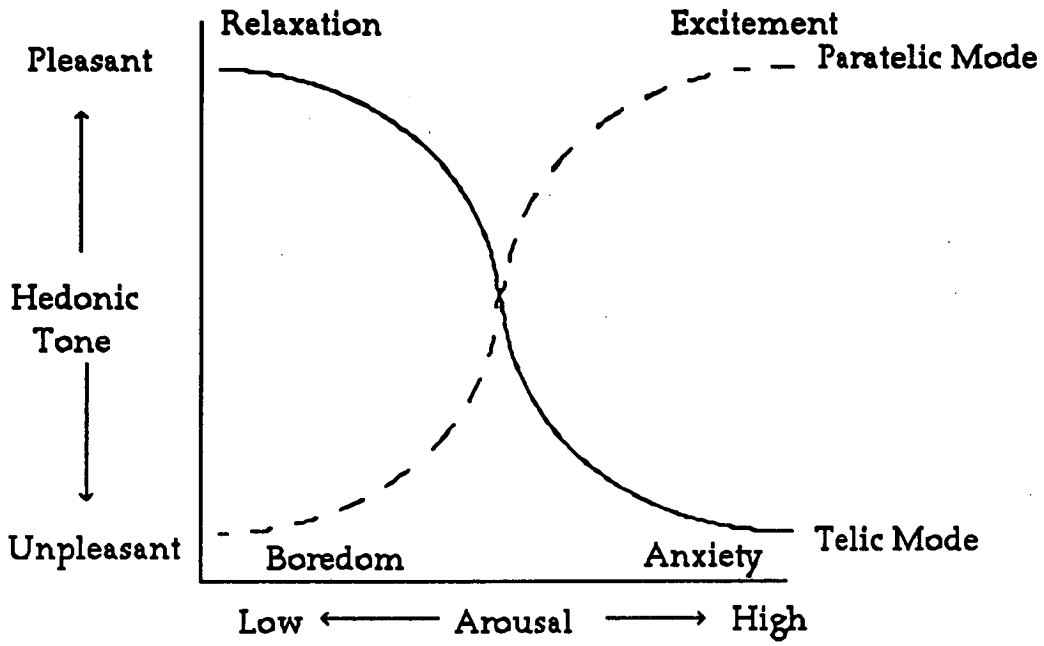

Figure 2.2. The telic/paratelic pair of modes. Adapted from "Bistability and Arousal" by M. J. Apter, 1982, *The Experience of Motivation: The Theory of Psychological Reversals*, p. 84.

arousal-seeking and arousal-avoidance modes. This is because the telic and paratelic modes are not just associated with, but analogous to, the arousal-seeking and arousal-avoiding modes. Thus in the telic mode one strives for a goal, which one may not necessarily achieve. Similarly, in the paratelic mode one wants fun, which is not necessarily experienced.

Negativist and Conformist Modes

Besides arousal, and the telic and paratelic modes, another important aspect of motivation is the experience of being easy or awkward, compliant or defiant, docile or rebellious. Normally we are aware of being easy or awkward and how aroused we feel about the situation. Consider the cases of (a) dressing well and behaving well to meet someone important, and (b) feeling a strong urge to walk out of a

committee meeting but resisting it (after Apter, 1989). In the first case one wishes to comply with convention while in the second case one wants to defy convention. For each case one feels pleasant if one succeeds and unpleasant if one fails. Again, low or high arousal can be experienced as pleasant or unpleasant. There are two types of easy outcome and two types of awkward outcome because there is a third pair of metamotivational modes. As before, these new modes separately experience something about ones behaviour, and allow for the possibility of reversing between one and the other over time.

The metamotivational mode in which easiness is primary and awkwardness is secondary is called the "conformist" mode (see Figure 2.3). In the conformist mode one wants or feels compelled to comply with some requirement. The metamotivational mode in which awkwardness is primary and easiness is secondary is called the "negativist" mode. In the negativist mode one wants or feels compelled to act against some requirement. Observe in Figure 2.3 that the negativist mode is associated with the arousal-seeking mode (hence paratelic mode) and the conformist is associated with the arousal-avoiding mode (hence telic mode). Again, emotion labels can be attached to the pleasant and unpleasant outcomes of the modes. In the conformist mode one feels anger during high arousal and placid during low arousal. In the negativist mode one feels pleasurable anger during high arousal and sullen during low arousal.

Other Modes

Besides the arousal, telic/paratelic and negativist/conformist modes, there are other metamotivational modes shaping our actions. While these modes are important to reversal theory, they are not studied in this thesis. Nevertheless, a brief description of these modes is necessary for a more complete outline of the theory. There are two other pairs of modes

not yet mentioned. These pairs of modes are not based on the variable felt arousal but on the experience of "felt transactional outcome" (i.e. interaction with other individuals). This outcome ranges from high to low gain.

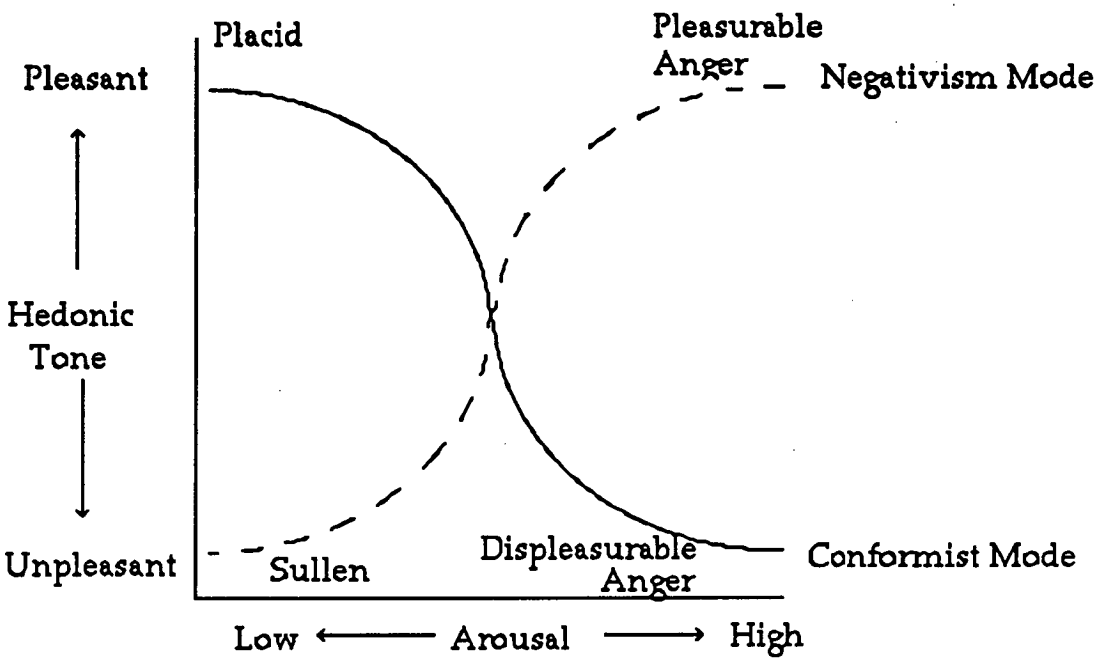

Figure 2.3. The negativist/conformist pair of modes. Adapted from "Bistability and Arousal," by M. J. Apter, 1982, *The Experience of Motivation: The Theory of Psychological Reversals*, p. 84.

Consider the cases of (a) playing tennis against a comparable opponent, and (b) playing tennis with a child who is learning (after Apter, 1989). For each case one may feel pleasant or unpleasant about the outcome. Losing to a comparable opponent will feel unpleasant whereas winning will feel pleasant. Losing to a child who is learning will be pleasant, whereas winning will feel unpleasant. In the first case one wants to grow in confidence and ability, whereas in the second case one wants the child to grow in confidence and ability. The self-centered mode is called the "autocentric" mode. In this mode pleasure and displeasure derive from

what happens to oneself than what happens to someone else. The other-centered mode is called the "allocentric" mode (from the Greek *allos* meaning "other"). In this mode pleasure and displeasure derive from what happens to someone else than what happens to oneself. In the autocentric mode one feels gain as pride, and loss as humiliation. In the allocentric mode one feels gain as shame, and loss as modesty.

Finally, consider the cases of (a) anticipating a birthday gift, and (b) waiting for a friend to arrive to share her or his problem (after Apter, 1989). Again, for each case one may feel pleasant or unpleasant about the outcome. One experiences pleasant gain if one receives the gift, and unpleasant loss if one does not receive the gift. If your friend arrives then you experience pleasant loss (giving time and effort), whereas if the friend fails to arrive you experience unpleasant gain (saving time and effort). The mode oriented to "being on top of things" (sharing a friend's problem) is called the "mastery" mode. In this mode one wishes to master one's interactant, situation or object. One sees transactions indicating one's strength or weakness. In this mode one feels gain as gratitude and loss as resentment. The mode oriented to people caring for you (receiving a gift) is called the "sympathy" mode. In this mode one wishes to be liked by the other with whom one is interacting. Transactions indicate that others care for you or do not. In the sympathy mode one feels gain as guilt and loss as virtue.

Mode Combinations and Associations

All pairs of modes are phenomenologically independent of other mode pairs and qualitatively distinct. Nevertheless, at any given time one always experiences one mode of each metamotivational pair. Ultimately, combining the structure of the four pairs of emotions generates 16 "primary" emotions (see Apter, 1988, for a description). All other emotions and emotion words can be assimilated to this basic set.

However, the hierarchical arrangement of modes produces a centre of awareness, or what is called mode "salience". Furthermore, in a given individual one mode may associate with another so that the two modes tend to occur together. For instance, Kerr (1988) hypothesises that the paratelic and negativist modes have combined in soccer hooligans. It is not the intention here to examine mode combinations and associations. Rather, it is to acknowledge that reversal theory attempts a complete account of emotional life.

Measurement Scales

Interest in reversal theory has stimulated the development of measurement scales so that the field now has its own distinct instruments of research. Murgatroyd, Rushton, Apter, and Ray (1978) devised the Telic Dominance Scale (TDS) to measure the strength of the telic/paratelic pair of modes in adults. The TDS comprises three 14-item subscales to measure different aspects of the telic mode. The subscale "seriousmindedness" measures the degree to which one orients toward goals seen as essential or important to oneself. "Planning orientation" measures the degree to which one plans ahead. "Arousal orientation" measures the degree to which one avoids or seeks situations that induce high or low arousal. The TDS uses a forced choice format for each item on the scale to present two courses of action. One option is telic, such as "I would like to go to a formal meeting." The other option is paratelic, such as "I would rather go to a party." Respondents tick the option they would normally prefer or tick a "not sure" if they are unable to choose. The total telic dominance score is the sum of the telic choices (weighted 1 per item) and "not sure" responses (weighted .5 per item).

Evidence suggests that the TDS is reliable. For instance, Murgatroyd et al., (1978) report a high test-retest correlation for one year later

(seriousmindedness r = .63, planning r = .68, arousal avoidance r = .70). A variety of empirical studies using various methodologies support the psychosocial behaviour of telic dominance (see Apter, 1989; Murgatroyd, 1985, for reviews). However, some factor analyses of scores to the scale have difficulty confirming its factor structure (Hyland, Sherry, & Thacker, 1988). Chapter 4 reports a study testing the factor structure of the TDS.

McDermott and Apter (1988) constructed the Negativism Dominance Scale (NDS) to measure the strength of the negativist/conformist pair of modes in adults. The NDS comprises two seven-item plus two "filler" item subscales to measure different aspects of the negativist/conformist modes. The subscale "reactive negativism" measures the degree to which one rebels as a reaction to interpersonal disappointment, rebuff, frustration or affront. The subscale "proactive negativism" measures the degree to which one rebels for pleasure, fun, excitement or "for the thrill of it." The NDS uses a forced choice format for each item on the scale to present two courses of action. One option is negativist, such as "When someone is unkind to me I try to get revenge." The other option is conformist, such as "When someone is unkind to me I try hard to avoid an argument." Respondents tick the option they would normally prefer given a free choice, or tick a "not sure" response if unable to choose. The total negativism dominance score is the sum of the negativist choices (weighted 1 per item) and "not sure" choices (weighted .5 per item).

Published evidence suggests the NDS is reliable. Test-retest correlations over a three week period for total scores from a subsample of British students was found acceptable (no figures reported; McDermott, 1988a). An interview based study offers support for the ecological validity for the reactive and proactive forms of rebelliousness, and for the construct validity of the NDS (see McDermott, 1988b). McDermott's (1986) factor

analysis of scores to the NDS confirm its factor structure with American students and British adolescents.

Mode Reversals

Scores on the TDS and NDS indicate that although there is a slight positive skew, most people are approximately normally distributed around the mean with only a few individuals in the upper and lower extremes (e.g., Baker, 1988; Bowers, 1985; Fontana, 1981; Howard, 1988; Lafreniere, Cowles & Apter, 1988; Martin, Kuiper, Olinger & Dobbin, 1987; Martin-Miller, & Martin, 1988; McDermott, 1988a; Murgatroyd et al., 1978; Svebak, 1986; Svebak & Murgatroyd, 1985). This indicates most people reverse between the arousal-seeking and arousal-avoiding, the telic and paratelic, and the negativist and conformist modes. A reversal from one mode to its opposite involves a complete change from one way of being to another. Note that this supports reversal theory's emphasis of "... the essentially dynamic and changing quality of peoples lives, the fluctuations and vicissitudes, the intra-individual as well as inter-individual differences" (Apter, 1989, p. 54). Reversal theory thus differs from trait theories of personality by arguing that the person's preferred mode merely denotes the probability of the person being in that mode rather than in its opposite at any time. People who freely reverse between modes are called *highly reversible* in this thesis.

The question arises as to what causes these reversals. Reversals occur when coexisting environmental conditions warrant them: When the forces of change are stronger than the forces resisting change. There appear to be numerous forces or factors causing change. One type of factor triggering reversals is the "contingent," which depends upon some environmental event or situation occurring. For instance, the contingent factor "getting a tyre punctured" may induce the telic or negativist mode. Also, some contingent factors tend to induce the same

mode in everyone. For instance, a loud crash will universally trigger the telic mode. Other contingent factors depend upon one's cognitive appraisal of it. For instance, seeing the police knocking at one's door may induce conformity in some people and negativism in others. Additionally, social cues like frowning, smiling and laughing also act as contingent factors.

A second type of factor inducing reversals is "frustration," which is discontent through the inability to achieve one's desires. Failing to get the preferred level of arousal may induce a reversal from any mode to its opposite. Playing a video game when the program repeatedly "crashes" is likely to increase frustration to a point where one reverses from the paratelic to the telic mode. Trying to enjoy a barbecue where there are flies may induce a reversal from the conformist to the negativist mode.

A third factor inducing reversals is "satiation," which is the feeling of having too much of something. Extending arousal beyond what one desires also may trigger a reversal from any mode to its opposite. For instance, Lafreniere et al., (1988) showed that playing a video game for too long induces a reversal into a telic mode (learning statistics), whereas learning statistics for too long induces a reversal into a paratelic mode (playing a video game). The proverb "a change is as good as a holiday" encapsulates the idea of reversal through satiation.

It is ironic, as Apter (1989, p. 160), and Murgatroyd and Apter (1984) note, that stability indicates mental health since reversal theory proposes that a certain kind of instability is necessary for a full and happy life. At times one needs to be serious or playful, conformist or negativist, self-centered or other-centered, and masterful or sympathetic. Mentally healthy and well adjusted individuals therefore need to reverse regularly between each pair of modes. Van der Molen (1985) has developed this point by

arguing that healthy psychological development needs regular reversals between the telic and paratelic modes. Among other things, in the paratelic mode one explores and develops a range of skills. In the telic mode one tests and modifies the effectiveness of these skills to cope with anxiety-evoking problems. A major form of developmental failure is for the telic mode to occur too frequently. Accordingly, the individual has a limited range of fully developed skills to utilise when facing serious situations. Ineffective coping responses and rigid behaviour patterns may result.

Mode Dominance

Individuals who score in the upper and lower extremes of the TDS and NDS are strongly biased to one mode over the other. That is, one mode may "dominate" the other to some extent. A high score on the TDS shows a strong telic mode or "telic dominance." A low score on the TDS shows a strong paratelic mode or "paratelic dominance." Similarly, high scores on the NDS show "negativist dominance" while low scores show "conformist dominance." People with a dominant mode are called *mode dominant* in this thesis.

This dichotomy between highly reversible people and mode dominant people should not be pressed too strongly, however. Dominance on one mode does not necessarily cause emotional disturbance or problems of adjustment. People dominated by one mode may freely reverse between other modes. Rather, dominance implies an increased possibility of emotional disturbance or problems of adjustment, in much the same way as type A behaviour is associated with coronary heart disease. The issue of causality is unclear.

It is important to note that metamotivational dominance may take

different forms (Apter, 1989; Murgatroyd & Apter, 1984). Dominance may be across modes (structural disturbance) in the forms of inhibited reversal (e.g., "stuck" in the mode) and inappropriate reversals (e.g., inability to remain in mode). Dominance also may be within modes, which involve inappropriate strategies to attain or maintain the preferred mode. Inappropriate strategies may be functionally inappropriate (i.e., failure to get desired outcome), temporally inappropriate (i.e., creating problems for oneself in the future), and socially inappropriate (i.e., causing distress and suffering to others).

A discernible trend in the research activity of reversal theory is to use extreme groups of telic and paratelic subjects to explore the psychological, social and physiological characteristics of telic and paratelic dominant individuals. For instance, Howard (1988) and Lanfriere, et al., (1988) formed extreme groups using plus or minus one standard deviation of scores on the total TDS. Baker (1988), Svebak (1986) and Svebak and Apter (1988) formed groups using the top and bottom 15%, 11% and 12% respectively of scores on the seriousmindedness subscale. Results reveal a marked contrast between the characteristics of telic and paratelic personalities.

Telic dominant people have an increased fear of failure, as measured by Robinson's (1961, in Murgatroyd, 1985) Need For Achievement questionnaire. They have a limited sexual repertoire (Murgatroyd, 1983, in Murgatroyd, 1985) and sense of humour (Martin, 1984), and tend to behave obsessionally but not neurotically so (Fontana, 1981). Telic people report, and their salivary cortisol, heart rate and skin resistance show, a positive linear relationship between stressors and mood disturbance (Dobbin & Martin, 1988; Martin et al., 1987). Additionally, telic people report less stress for resolved stressors than unresolved stressors (Martin et al., 1987). Telic people appraise everyday bothersome events as

threatening than as challenging (Baker, 1988) and report using goal directed problem-focussed coping strategies than emotion-focussed strategies (Baker, 1988; Howard, 1988). Finally, there is a strong psychogenic risk of skeletal muscle tension from the experience of negative emotions in the telic mode (Apter, 1989; Svebak, 1988).

By contrast, paratelic people are sensitive to the emotionally loaded words on Stroop's (1935) Colour-Word Interference task (Ray, in Murgatroyd et al., 1978). Paratelic people are more likely to be regular gamblers than are the population norm. The more paratelic the gambler the greater the bet size (Anderson & Brown, 1987). Doherty and Mathews (1988) found that opiate addicts were more paratelic dominant than telic dominant. Paratelic people report, and their salivary cortisol, heart rate and skin resistance show, a curvilinear relationship between stressors and mood disturbance. The disturbance is least when stressors are moderate but most when stressors are high or low (Dobbin & Martin, 1988; Martin, et al., 1987). Additionally, paratelic people report more stress to resolved stressors compared to unresolved stressors (Martin, et al., 1987). Paratelic people are more likely to appraise everyday bothersome events as challenging rather than as threatening (Baker, 1988). Paratelic people also report using more emotion-focussed coping strategies than problem-focussed strategies (Baker, 1988; Howard, 1988; Murgatroyd, 1983, in Murgatroyd, 1985).

A similar trend in the research activity of reversal theory is to use the extreme groups method to explore the characteristics of negativist dominant individuals. Negativist people tend to be younger than older, live on a relatively low family income, and be employed in less skilled work (Tacon & Abner, 1989). Negativist American students were observed to have an increased number of non-excused absences and school referrals, and a lower grade point average (McDermott, 1986).

Males tend to be more reactively (McDermott, 1988a) and proactively negativist than females (Tacon & Abner, 1989). Whereas reactively negativist males tend to be individualistic, have a need for power, and maintain an external locus of control, reactively negativist females tend to be irritable (McDermott, 1988a). Additionally, whereas proactive negativism in males is associated with depressed mood, anxiety, insomnia, and somatic symptoms, proactive negativism in females is associated with "individualism," an external locus of control, feelings of "helplessness," and a lack of personal control (McDermott, 1988a). Proactive negativism has also been construed as a form of play involving dangerous risks (McDermott, 1991).

Summary

Smith and Apter's (1975) structural phenomenological theory of personality, Psychological Reversals, proposes that motivation is at the basis of human action. An important aspect of motivation is arousal. Unlike optimal arousal theories of motivation, which postulates one homeostatic arousal system, reversal theory postulates two bistable arousal systems: the arousal-seeking system, and the arousal-avoiding system. Other aspects of motivation include the experience of means and ends, and the experience of being easy or awkward. The experience of means is called the telic mode, in which one is seriousminded, plans ahead and arousal-avoiding. The experience of ends is called the paratelic mode, in which one is playful, present-oriented and arousal-seeking. The experience of being easy is called the conformist mode, in which one wants to comply with some requirement. The experience of being awkward is called the negativist mode, in which one wants to act against some requirement. Reversal theory postulates other aspects of motivation, which while being important to the theory, are not considered here. Combining two or more modes synthesizes a new emotion, which ultimately generates 16 primary emotions. The Telic

Dominance and the Negativism Dominance Scales measure the telic/paratelic and the negativist/conformist pairs of modes respectively. Studies using these scales indicate most people reverse between each mode in a pair, but some people may be dominated by a mode (e.g., Baker, 1988; Bowers, 1985; Fontana, 1981; Howard, 1988; Lafreniere, et al., 1988; Martin, et al., 1987; Martin-Miller & Martin, 1988; McDermott, 1988a; Murgatroyd, et al., 1978; Svebak, 1986; Svebak & Murgatroyd, 1985).

Chapter 3

Reversal Theory and Compatibility[1]

Reversal theory postulates that everybody manifests the four pairs of metamotivational modes. Empirical evidence indicates that in an individual the telic or paratelic modes may manifest to a greater or lesser extent. An important question is whether these metamotivational modes influence our ability to coexist in peace and harmony with each other in everyday life. That is, whether one feels more *compatible* with telic people than paratelic people, or with highly reversible people than dominant people, and so on. This is an important question for family therapists and counsellors since some evidence suggests that extreme incompatibility between parents and children may lead to child abuse (Lamb & Gilbride, 1985). If there is the smallest link between metamotivational modes and child abuse we have to be concerned.

It seems tenable that metamotivational modes influence our compatibility with each other in everyday life. Compatibility is a difficult construct to define due to its complexity (Ickes, 1985a). The definition given here is necessarily simple to allow the construct to be operationalised. Compatibility means "Able to agree, live, work or 'get along' together in harmony; capable of mutual tolerance; same or similar in character" (The Oxford English Dictionary, 1989; Websters Third New International Dictionary, 1971). If a relationship is compatible it is because

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[1] Sections of this chapter were presented at the 24th Annual Conference of the Australian Psychological Society, in Hobart, Australia, September 1989.

members are agreeable, they share common goals, attitudes, feelings, etc. Members are tolerant by permitting or enduring certain actions and practices. Members are similar by "meshing" together and are in "sync" with each other). Compatibility defined thus can be assessed through various self-report measures of agreeability, tolerability, similarity, and so on. Notice that compatibility here refers to the individual's felt compatibility with others, not to how others view the compatibility. This orientation is consistent with the phenomenological approach of reversal theory.

Mode Dominance and Compatibility

As it happens, Apter (1982, 1989) and Apter and Smith (1979) have already asked whether metamotivational modes influence compatibility with each other. Specifically, Apter and Smith suggest that many problems of the family arise out of an incompatibility between family members in terms of telic/paratelic opposition or negativist/conformist opposition. If members of the same family are together and occupy different dominant modes, then problems of compatibility are likely to arise in their interactions and communications. However, if members are together and share the same dominant mode, then problems of compatibility are likely to decrease since this allows people to accommodate the modes of other people. In other words, occupying different dominant modes inhibits compatibility, whereas sharing the same dominant mode facilitates compatibility. Thus a telic dominant mother would feel more compatible with a telic dominant child than would a paratelic dominant mother. Conversely, a paratelic dominant mother would feel more compatible with a paratelic dominant child than would a telic dominant mother. A similar prediction might be made for the negativist/conformist modes. However, it could be expected that nobody particularly feels compatible with the negativist child. It is probably more a case of who least dislikes the negativist child.

Two or more highly reversible or mode dominant individuals occupying the opposite mode at the same time in any environmental setting is called *mode opposition* in this thesis. Undoubtedly, similar predictions can be made about fathers' compatibility with children. However, as it was not possible to obtain an equally large sample of fathers, and that the increase in the number of experiments would have been prohibitive, only mothers are tested in this research.

Interesting though Smith and Apter's suggestion is, they base it on theoretical insight and evidence from clinical observations. Substantiated thus the hypothesis lacks empirical verification. Fortunately one may adduce as further evidence a body of literature in Social Psychology showing that similarity increases attraction. This literature clearly indicates we like those who are similar to ourselves and dislike those who are dissimilar to ourselves (Byrne & Nelson, 1965; Byrne, Ervin, & Lamberth, 1970; Griffitt & Veitch, 1974; Kulp & Davidson, 1933; Schachter, 1951; Schuster & Elderton, 1906; Winslow, 1937). We like those who are similar to ourselves because they positively reinforce our attitudes, behaviour, beliefs and emotions. We dislike those who are dissimilar to ourselves because they negatively reinforce our attitudes, behaviour, beliefs and emotions. For instance, the more similar one's attitudes are to those of the other person the better one likes that person. A linear relationship between proportion of similar attitudes and attraction holds true for elementary school children, high school dropouts, senior citizens, and for students in America, India, Mexico and Japan (Byrne, 1971).

Mode Dominance and Mother-Child Compatibility

Three features of the mother-child relationship need to be appreciated before elaborating Apter and Smith's idea of mode opposition to compatibility between mothers and children. First, one must appreciate

that children naturally spend more time in the paratelic than in the telic mode and vice versa with adults (Murgatroyd, 1983, in Murgatroyd, 1985). This probably involves developmental processes. Children play to develop skills necessary for adult life (Groos, 1898, 1901, cited in Apter, 1982, p. 300) and to practice manipulating symbols and objects (Piaget, 1951, cited in Apter, 1982, p. 300). Also, children usually have their needs met by adults and therefore can spend more time in the paratelic than in the telic mode. Conversely, adults needing to look after and be responsible for children have to spend more time in the telic than in the paratelic mode.

The second feature to appreciate is that measuring mothers' reported compatibility with their children presents an experimental problem. The problem is that mothers may report more compatibility than there is, which is due to numerous reasons. First, there is the problem of social desirability in which there is a conscious desire to conform with the norm of being a loving mother. Mothers are likely to feel guilty if they do not provide the care and support that children need to become independent. Therefore, mothers accept differences (e.g., struggle for power) that arise between themselves and their children. Second, mothers have more perceived and real control over their children since they can discipline as necessary. With other children, however, mothers have less control since it is usually not their right or role to discipline. Third, mothers and children may learn to accommodate attitudes, behaviours and habits typical of each others metamotivational style (i.e., highly reversible or mode dominant). For example, a mother may learn that her child is strongly telic and has to adjust to this telic lifestyle accordingly. Alternatively, a child may learn that his mother freely reverses between the negativist and conformist modes. Sometimes he can get away with "murder" while other times he has to "tread lightly."

Finally, mothers may feel threatened when asked personal questions about how well they and their children "get along."

For these reasons, measuring mothers' reported compatibility with their children is problematical. An obvious solution is to measure reported compatibility between mothers and other (i.e., non-related) children, such as the child living next door. In this way mothers are less effected by social desirability, feel less obligation to care and support the child, feel less control over the child, and have less expectancies about the child's metamotivational style.

The third feature to appreciate is that characteristics of the mother (personality characteristics, attitudes, expectations, history, role model), child (personality characteristics, social competence), and their social situation (socioecological variables, social support systems, and environmental stresses) ultimately determine the compatibility of a mother-child dyad (see Lamb & Gilbride, 1985, for a review). For example, a difficult child may be handled so well or an easy child so poorly that the outcome is different from what one might predict from initial metamotivational style. The reversal theory perspective emphasises the influence of personality characteristics and attitudes on compatibility.

The remainder of this chapter describes ways that telic/paratelic dominance and negativist/conformist dominance may create incompatibility between mothers and other children. An hypothesis about mother-child compatibility is stated last.

Telic Dominant Mothers. Telic mothers may be so goal-oriented that they enforce strict rules on the children so that the children pose no obstacles to them. Or, mothers may be so ambitious pursuing their goals

that they neglect the children altogether. Alternatively, mothers may attempt to express their telic purposefulness through the children, such as setting them goals like practicing the piano. Or, mothers whose goal is the children themselves may just be overprotective of the children, like being overprotective in the playground.

Telic Dominant Children. Telic dominant children are resolute, determined and persistent in their pursuit of goals. For instance, they stubbornly resist attempts from others to get them to play. These children may lower the arousal of the whole social environment or reshape the physical environment to help their goal seeking activities. Alternatively, these children may attempt to express their telic purposefulness through others, such as setting goals for them like going back to study. Sue Townsend's (1984) character, Adrian Mole, exemplifies a strongly telic child.

Paratelic Dominant Mothers. Mothers who are too paratelic may be expected to have more difficulties interacting with children than telic mothers. One way for this to happen is for mothers to become so engrossed in the pleasure and excitement of the situation that they neglect to provide others with the care and attention they need. Such difficulties may outweigh the benefits to the children afforded by other paratelic activities.

Paratelic Dominant Children. Paratelic children are generally restless and distractable, and have difficulty in settling down to do anything serious. This may make others anxious. For instance, these children may raise the level of arousal of the social environment or reshape the physical environment to help their playful activities. Alternatively, they may attempt to involve others in the games too, such as partnering on the see-saw.

Conformist Dominant Mothers. Conformist mothers may too readily acquiesce to children's demands resulting in inadequate management of the children. Similarly, mothers may comply with the expectations or demands of people outside the family. Enforcing behavioural restraints or espousing ideals, dated values or morals that do not suit the child's temperament and personality, are examples. In this respect the conformist mother is akin to the sober drinker who feels the increasing pressure to conform to the custom of having "one for the road."

Conformist Dominant Children. The conformist child may too readily acquiesce to the mother's requests. Here the child loses opportunities for growth and development by never venturing anything new. Or, the child may be too easily manipulated or harassed by other children. Also, the child may demand that others comply with social conventions, the law, or the expectations of others. Thus the mother may be angered by the child's pedantry or dismayed at its lack of assertion.

Negativist Dominant Mothers. Negativist mothers might deliberately punish, cajole or otherwise upset the child to attain an immediately pleasurable-anger mode. Also, these mothers could be antisocial to the children, for instance, "don't you talk to me," or destructive of their environment, such as, "pack those games away." Similarly, in response to an external agent, like after a "hard day", she might target her anger by "taking it out" on others. Alternatively, in response to the children's demands for attention, energy and time, or where the children fail to sympathise, side with, comfort, or love the mother, she may become irritable, vengeful, or even vindictive toward the children.

Negativist Dominant Children. Negativist children may have a repertoire of "tricks" to gain pleasure. For instance, shouting or having a temper tantrum in a public place can cause a good deal of excitement. So

too can doing things that are banned, such as swearing and chewing gum. Also, the child could be just vindictive by destroying the environment, (e.g., stomping on the flower bed). Alternatively, a request or order by another person may give the child something on which to focus her or his negativism. If this induces the negativist mode in the other, a "showdown" is likely.

As noted in Chapter 2, since the distribution of scores to the TDS and NDS is approximately normal, few people are strongly dominated by a mode. Typically, people reverse between modes as a function of contingency, frustration and satiation.

Hypothesis

The following hypothesis about compatibility between mothers and non-related children is based on the reasoning and propositions of chapters 2 and 3. It was hypothesised that mode dominant mothers sharing the same mode as mode dominant children would be more compatible than mode dominant mothers occupying the opposite mode to mode dominant children.

Summary

Reversal theory and a body of literature in Social Psychology offers one explanation of why we feel compatible with those most like ourselves and least compatible with those most unlike ourselves. Reversal theory predicts that dominant mode-similarity facilitates compatibility whereas dominant mode opposition inhibits compatibility. No empirical evidence directly testing this hypothesis could be found. Since mothers are likely to report more compatibility with their children than there is, an hypothesis was formulated about compatibility between mothers and non-related children.

Chapter 4

Study 1

The Telic Dominance and Negativism Dominance Scales: Construct Validity and Some Australian Data[2]

As noted in chapter 2, Smith and Apter's (1975) theory of psychological reversals proposes various pairs of metamotivational modes that shape our actions. Interest in psychological reversals has stimulated the development of various measurement scales to measure these modes. For instance, Murgatroyd et al., (1978) devised the TDS to measure the telic/paratelic pair of modes in adults. McDermott and Apter (1988) devised the NDS to measure the conformist/negativist pair of modes in adults.

Despite apparent validity, there is reservation about the psychometric development of the TDS. Factor analyses of scores to the test do not confirm its three subscales, seriousmindedness, planning orientation, and arousal avoidance. Studies using principal components analysis suggest three to five components of telic dominance. For instance, Gallacher, et al., (1988) using principal components with varimax (orthogonal) rotation identified three components from an examination of TDS scores of 99 employed middle-aged men. The components are (a) an arousal-avoidance component accounting for 32.3% of the variance,

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[2] Sections of the study reported in this chapter were presented at the 24th Annual Conference of the Australian Psychological Society, in Hobart, Australia, September 1989.

(b) an activation-planning component accounting for 12% of the variance, and (c) a planning component accounting for 8.3% of the variance. Murgatroyd (1983, in Murgatroyd, 1985) identified four factors from the TDS scores of 170 female and 330 male part-time students enrolled in the Open University, United Kingdom. These factors are (a) a generalised telic factor accounting for 58.4% of the variance, (b) an arousal avoidance factor accounting for 17.6% of the variance, (c) a bipolar factor named stability/security versus purposive striving accounting for 14.2% of the variance, and (d) a factor named planning purposiveness accounting for less than 10% of the variance.

Hyland et al., (1988) list three major problems with previous applications of factor analysis to the TDS. First, it is not possible to say how much each factor contributes to the total factor variance since researchers only report the extracted variance. Second, the conceptual basis of telic dominance is that the characteristics (or factors) of telic dominance intercorrelate (i.e., are non-orthogonal) as Murgatroyd et al. (1978) showed. Therefore, the implications of the theoretical construct are that varimax rotation is inappropriate and some form of oblique (correlated) rotation should be used instead. Third, the methods used to ascertain the number of factors extracted may have been too simple. A better solution may be to inspect the clusters of factor loadings to see what makes psychological sense. Alternatively, one could use Cattell's "scree test" to ensure a reasonable amount of the total variance in the final solution.

Hyland et al. (1988) analysed the scores of 84 undergraduates to the TDS using principal components with oblique rotation. A scree plot showed there were between three and five components, but five components could only account for 32% of the total variance. Two, three and four component extractions were provided, but the components were never significantly correlated. The three component solution showed that the

first component had significant loadings on items from all three theoretically conceived subscales accounting for 6.4% of the total variance. Component two consisted of items relating to leisure pursuits, while component three was uninterpretable. While Svebak and Murgatroyd (1985) provide multi-method validity of the TDS, factor analyses of item scores to the TDS have difficulty confirming the three subscales (Gallacher, Yarnell & Phillips, 1988; Murgatroyd 1983, in Murgatroyd, 1985; Hyland, Sherry & Thacker, 1988).

McDermott and Apter's (1988) NDS was empirically derived from American university undergraduates and American and British high school students' scores to a pool of 137 items (see McDermott, 1986). Separate factor analyses of responses specifying two factors and varimax rotation produced similar factor loadings. The factors were labelled "proactive rebellion" and "reactive rebellion" according to the conceptual origin of the items. The two data sets were then combined, re-factor analysed, and items with eigenvalues of approximately less than 0.29 were discarded. This produced a more stable factor structure while still ensuring a reasonable amount of total variance in the final solution. A further factor analysis confirmed the structure using scores from 268 American and British high school students. Several psychological constructs, such as locus of control and need for power, provided convergent and divergent (discriminant) validity for the scales.

The validity of the TDS and NDS with Australian samples is an issue that needs resolving if Australian researchers are to continue to use these tests with confidence. An alternative method for examining the construct validity of the TDS, which concurrently tests the construct validity of the NDS, is to factor analyse at the "subscale level" to confirm the explanatory power of the two a priori measures, rather than at the "item-level" for internal psychometric structure. A high correlation

among subscales of the same measure shows convergent validity. A low correlation between subscales of one measure with those of a different measure shows divergent validity, or orthogonality. Given that the systematic variance among test scores can be due to response features of the TDS and NDS, and responses to the trait content, a validational process utilising a matrix of intercorrelations among subscales representing at least two traits, each measured by at least two methods, is necessary (Campbell & Fiske, 1958). A major aim of this study was therefore to verify the construct validity of the TDS and NDS. To this end, principal components analysis with varimax rotation was conducted using subscale scores, rather than item scores, to the TDS and NDS. This method allows the characteristics of telic dominance to intercorrelate, and the characteristics of negativism dominance to intercorrelate.

Researchers have few Australian data available for these scales, and are handicapped because normative data are Canadian and European. Clearly this is another issue that needs resolving if research using these scales is to be conducted on Australians. A subsidiary aim of this study was therefore to make available some Australian data for the TDS and NDS. Two different samples were tested: A sample of University undergraduate students, and a sample of mothers. It was hypothesised for the Australian samples, that convergent and divergent validity would be provided for the TDS and the NDS, as suggested by Hyland et al. (1988), McDermott (1988a), and Murgatroyd et al. (1978). Some data on Australian norms were also sought, and the resulting Australian data compared with Canadian and European norms.

Undergraduate Student Sample

Method

Subjects

Sixty-seven male (31%) and 150 female full and part time undergraduate students taking an introductory course in Psychology at the University of Tasmania completed the test scales. The mean age was 22.81 (*SD* = 7.12, range = 33) years.

Materials

Demographic information included place born and occupation of primary breadwinner in the immediate family. The TDS measured the telic and paratelic modes, and the NDS measured the conformist and negativist modes.

Results

SPSS^X calculated all results. The significance level used for all tests was set at $p<.01$. The TDS and NDS were scored according to established criteria. *T*-tests show no significant differences for total TDS scores and total NDS scores between those born in Australia (82%, n = 177) and those born overseas (18%, n = 40). Nearly 17% (n = 34) said the primary breadwinner in the immediate family was unskilled/semi-skilled, 41% (n = 84) said the primary breadwinner was professional, while 58% (n = 99) reported the primary breadwinner to be somewhere between unskilled/semi-skilled and professional. Chi-squares show no significant differences among these groups for total TDS and total NDS scores.

Table 4.1 presents mean and total TDS scores and summarises data for samples from different countries. A total score below 21 is towards the paratelic pole and a total score above 21 is towards the telic pole. Table 4.1

shows that all student populations are toward the paratelic pole. Australian students total scores are slightly peaked and positively skewed (kurtosis = 0.35, skewness = 0.18). Australian students are more paratelic than students from Wales, $t(555) = 4.55$, $p<.01$, and up to 3.64 points more paratelic than students from Norway. Alternatively, Australian students are more telic than students from England, $t(329) = 7.81$, $p<.01$. Differences between Australian and Canadian scores are not significant.

Table 4.1.

Australian and Overseas Data for the Telic Dominance Scale and Subscales for Student Populations

Country	Serious Mean (SD)	Planner Mean (SD)	Avoider Mean (SD)	Total Score Mean (SD)	N
England	4.47 -	3.91 -	3.73 -	12.11* -	114
Australia	4.49 (2.29)	5.66 (2.29)	4.43 (2.25)	14.58 (5.02)	217
Canada	4.23 -	5.53 -	4.91 -	14.67 -	125
Wales	5.61 -	5.06 -	5.83 -	16.50* -	340
Norway	4.61 -	7.26 -	6.35 -	18.22* -	222

Note. All figures, excepting those for Australian undergraduates, are adapted from "The nature of telic dominance," by S. Murgatroyd, 1985, in M. Apter, D. Fontana and S. Murgatroyd (Eds.), *Reversal Theory: Applications and Developments.* p. 25.

Note. In absence of reported standard deviations for the student populations, the standard deviation for the Australian sample was assumed as a uniform measure of variance.

*$p<.01$.

For the NDS, a total score below seven is towards the conformist pole

while a total score above seven is towards the negativist pole. Total NDS scores are 3.74 (*SD* = 2.50), proactive negativism scores are 1.98 (*SD* = 1.46), and reactive negativism scores are 1.77 (*SD* = 1.50). Total scores are slightly peaked and positively skewed (kurtosis = 1.55, skewness = 0.98). Table 4.2 shows mean age, mean TDS scores and mean NDS scores for males and females. Total and subscale scores to the TDS and NDS are generally higher for males than for females. However, *t*-tests show only the mean proactive negativist scores to be significantly higher in males, $t(215) = 3.17$, $p<.01$.

Table 4.2.

Means, Standard Deviations, and T-Values of Age and Responses to the Telic Dominance Scale and Subscales by Sex

Measure	Male Mean (SD)	Female Mean (SD)	T-Statistic (d.f.)
Age in Years	23.50 (6.97)	22.12 (7.17)	1.32 (215)
Telic Dominance			
Serious	4.81 (2.49)	4.19 (2.04)	1.91 (212)
Planner	5.70 (2.73)	5.62 (2.11)	0.22 (209)
Avoider	4.56 (2.57)	4.27 (2.11)	0.92 (214)
Total	15.07 (5.91)	14.08 (4.62)	1.53 (207)
Negativist Dominance			
Proactive	2.31 (1.61)	1.64 (1.34)	3.17 (215)*
Reactive	1.75 (1.45)	1.78 (1.52)	0.16 (211)
Total	4.06 (2.60)	3.42 (2.41)	1.68 (211)

*$p<.01$.

Correlations among age, total TDS scores and total NDS scores were examined. A small but significant negative correlation between age and total NDS is evident, $r(216) = -.21$, $p<.01$, but there is no significant correlation between age and total TDS, $r(216) = .12$, $p = .07$. A small but significant negative correlation between total TDS and total NDS is evident, $r(216) = -.18$, $p<.01$.

Principal components analysis with varimax rotation and an unspecified number of components was conducted on the three subscales from the TDS (SERIOUS, PLANNER, AVOIDER) and the two subscales from the NDS (PROACTIVE, REACTIVE). Table 4.3 presents the correlation matrix for the subscales. No markedly strong correlations are evident with subscales on the same tests correlating positively and subscales from different tests showing nonsignificant negative relationships. The exception is a significant negative relationship between AVOIDER and PROACTIVE.

Table 4.3.

Correlation Matrix of Telic Dominance and Negativism Dominance Subscales

	SERIOUS	PLANNER	AVOIDER	PROACTIVE	REACTIVE
SERIOUS	1				
PLANNER	.453*	1			
AVOIDER	.208*	.328*	1		
PROACTIVE	-.067	-.156	-.298*	1	
REACTIVE	.054	-.074	-.144	.405*	1

*$p<.01$

Two orthogonal components emerged accounting for 63.1% of the total variance. Table 4.4 shows loadings of subscales on components,

eigenvalues, and percentages of variance. Subscales are ordered and grouped by size of loading to simplify interpretation. One component resembles the TDS (subscales SERIOUS, PLANNER, AVOIDER) and accounts for 52% of the common factor variance. The other component resembles the NDS (subscales PROACTIVE, REACTIVE) and accounts for 48% of the common factor variance. The intercorrelation between the two components is nonsignificant, $r(216) = -.14$.

Table 4.4. *Rotated Component Loadings, Eigenvalues, and Percents of Variance for the Two Components*

Subscales	Component 1	Component 2
PLANNER	.85	-.04
SERIOUS	.79	.05
AVOIDER	.55	-.41
PROACTIVE	-.14	.82
REACTIVE	.06	.81
Eigenvalues	1.87	1.28
Percentage Variance	37.40	25.70

Principal components analysis with varimax rotation and three components specified was also extracted on the five subscales accounting for 78.6% of the total variance. The components were less easy to interpret. One component comprised the SERIOUS and PLANNER subscales, which accounted for 37.4% of the variance. A second component comprised the PROACTIVE and REACTIVE subscales, which accounted for 25.7% of the variance. A third component comprised the AVOIDER subscale, which accounted for 15.5% of the variance. Besides interpretive difficulties, the AVOIDER component has an eigenvalue of

0.77. The three component solution was rejected in preference to the two component solution because of conceptual simplicity and ease of description, despite the overlap between the two components on the AVOIDER subscale.

Split-half reliability coefficients were calculated for each subscale. Alpha coefficients for all subscales are acceptable: seriousmindedness (α = .53), planning orientation (α = .54), arousal avoidance (α = .60), proactive negativism (α = .54) and reactive negativism (α = .58). Tukey's (1977) test for additivity suggests that most subscale scores need transforming: planning orientation, $F(206) = 11.96$, $p<.001$; arousal avoidance, $F(206) = 24.38$, $p<.00001$; proactive negativism, $F(206) = 37.80$, $p<.00001$; and reactive negativism, $F(206) = 8.95$, $p<.005$.

Discussion

As expected, principal components analysis of subscale scores to the TDS and NDS produced two orthogonal components closely resembling the two scales. For the TDS, the inter-subscale correlations were positive and significant. However, the correlation between seriousmindedness and planning orientation was higher than that between either of these subscales and arousal avoidance. Baker (1988), Fontana (1981) and Mathews (1985) have also found this subscale relationship. Similarly, for the NDS, the inter-subscale correlation was positive and significant, however the negative correlation between the subscales arousal avoidance and proactive negativism was also significant. This relationship is surprising given that arousal is not included in the definition of negativism (see p.8). The correlation between proactive negativism and arousal avoidance was responsible for the nonsignificant negative intercorrelation between the two components.

The question arises why Australian undergraduates were generally paratelic. The TDS scores are consistent with the popular Australian ethos stressing the active pursuit of leisure, the "great" outdoor life, and the laissez aller "she'll be right" attitude. However, this finding could also be due to the present sample being younger than students from other populations. Murgatroyd (1983, in Murgatroyd, 1985) reported a developmental trend in telic dominance, with adults showing a skew to the telic mode. A maturational trend was evident in the present sample, $r(216) = .12$, but was nonsignificant, which is probably due to the poor representation of older subjects in the sample. Thus the sample may be more paratelic than telic because it contained young subjects.

Australian undergraduates were also predominantly conformist. There are numerous reasons for these low NDS scores. Perhaps the scores reflect the necessity for studiousness due to higher unemployment and the difficulties associated with getting a job. The scores may be attributable to the "yuppie" mentality so commonly ascribed to the young and upwardly-mobile in middle-class Australia (Williams, 1987). Additionally, the increased social pressure for academic qualifications, and the recent introduction of University fees may have decreased the scores. Perhaps conducting the test during the first week of term biased the NDS scores toward the conformist pole. Despite assurances, subjects may have thought that reporting their rebelliousness might jeopardise their marks. In other words, subjects may have modified their answers in a conformist direction in response to characteristics implicit in the testing situation. As McDermott (1988b) found, this may be especially true of women. Finally, however, maybe these predominantly conformist scores are fairly typical responses to the NDS. Clearly there is a need for normative data for the NDS for Australian samples.

An age difference was observed in NDS scores. Younger adults were more rebellious than older adults, which is consistent with the apparent salience that rebelliousness has during adolescence (Balswick & Macrides, 1975; cited in McDermott, 1988a). Like telic dominance, this suggests a maturational trend in negativist dominance, with older adults showing a skew to the conformist mode. A small but significant trend was observed for these students' scores.

Sex differences were not evident for the TDS or NDS excepting that men were significantly more proactively negative than were women. This is unsurprising since the active expression of opposition is socially acceptable and gender-appropriate for men but not for women. Yet McDermott (1988b) showed that for American and British students, men compared with women were significantly more reactively negative than proactively negative. Perhaps this is an example of women modifying their answers in the conformist direction. Some evidence suggests that women are more susceptible to social influence than are men (Deaux, 1985; Eagly & Carli, 1981; cited in McDermott, 1988a).

The set of data yielded here from an University undergraduate population suggests that the students are more paratelic than telic, and predominantly conformist. Principal components analysis of subscales scores confirm the adequacy of the TDS and NDS as measures of the telic-paratelic and negativist-conformist pair of modes respectively.

Sample of Mothers

Method

Subjects

One hundred and seventy one mothers in Hobart and environs volunteered to complete the test scales. The mean age was 33.84 (*SD* =

7.76, range = 25) years. All mothers had at least one child between 3 and 10 years of age.

Materials

Demographic materials included number and age of children, responsibility for disciplining the children, who the child lives with, and occupation of primary breadwinner in the immediate family. The TDS and NDS measured the telic/paratelic and conformist/negativist modes.

Results

SPSS^{X} calculated all results. The significance level used for all tests was set at $p<.01$. The TDS and NDS were scored according to established criteria. Mothers were on average 11 years older than the Australian students described in the previous section. Chi-squares showed no significant differences for total TDS scores or total NDS scores among those solely responsible for disciplining the children (15%, n = 26), jointly responsible (81%, n = 138) or other (2%, n = 3). Nearly 15% (n = 25) said the primary breadwinner in the immediate family was unskilled/semi-skilled, 40% (n = 69) said the primary breadwinner was professional, while 41% (n = 70) said the primary breadwinner was somewhere between unskilled/semi-skilled and professional. Chi-squares show no significant differences among the groups for total TDS and total NDS scores. Mothers had an average of 2.35 (SD = 1.03) children who were on average 6.39 (SD = 3.27, range = 16.15) years old.

Total TDS scores (M = 15.76, SD = 4.87) are approximately symmetrical (kurtosis = -0.25, skewness = 0.05). Total NDS scores (M = 2.35, SD = 1.92) are peaked and positively skewed (kurtosis = 2.8, skewness = 1.38). Total TDS and total NDS scores were compared with the Australian students scores. The total TDS score is a significant 1.16 items higher than undergraduate students scores, $t(386) = 2.96$, $p<.01$. Alternatively,

the total NDS score is a significant 1.40 items lower than undergraduate students scores, $t(386) = 6.09$, $p<.0001$. Total TDS scores do not correlate significantly with total NDS scores, $r(170) = -.19$. Mean scores to the TDS and NDS subscales are seriousmindedness 4.40 (SD = 1.97), planning orientation 5.18 (SD = 2.08), arousal avoidance 6.18 (SD = 2.33), proactive negativism 0.80 (SD = 1.16) and reactive negativism 1.55 (SD = 1.28).

Correlations among age, total TDS and total NDS scores were examined. No significant correlation was evident between age and total TDS, $r(166) = 0.02$, age and total NDS, $r(166) = -.11$, or total TDS and total NDS, $r(170) = -.19$.

Principal components analysis with varimax rotation and an unspecified number of components was conducted on the three subscales from the TDS and the two subscales from the NDS. Table 4.5 presents the correlation matrix for the scales and subscales. No markedly strong correlations are evident. Subscales on the same tests correlate positively, while subscales from different tests show nonsignificant negative relationships. The exception is a significant negative relationship between AVOIDER and PROACTIVE, and AVOIDER and REACTIVE.

Three components emerged accounting for 77% of the total variance. One component comprised the SERIOUS, PLANNER and AVOIDER subscales, which accounted for 46% of the common factor variance. A second component comprised the PROACTIVE subscale, which accounted for 29% of the common factor variance. The third component comprised the REACTIVE subscale, which accounted for 27% of the common factor variance. Besides interpretive difficulties, the REACTIVE component had an eigenvalue of 0.75.

Table 4.5.

Correlation Matrix of the Telic Dominance and Negativism Dominance Subscales

	SERIOUS	PLANNER	AVOIDER	PROACTIVE	REACTIVE
SERIOUS	1				
PLANNER	.441*	1			
AVOIDER	.299*	.394*	1		
PROACTIVE	-.071	-.105	-.276*	1	
REACTIVE	-.023	-.023	-.188	.251*	1

*$p<.01$

Principal components analysis with varimax rotation and two components specified was also extracted on the five subscales. The emergent orthogonal components accounted for 62% of the total variance. Table 4.6 shows loadings of subscales on components, eigenvalues and percentages of variance. Subscales are ordered and grouped by size of loading to simplify interpretation. One component resembles the TDS (subscales SERIOUS, PLANNER, AVOIDER) and accounts for 56% of the common factor variance. The other component resembles the NDS (subscales PROACTIVE, REACTIVE) and accounts for 44% of the common factor variance. The intercorrelation between the two components was nonsignificant, $r(164) = .13$. The unspecified component solution was rejected in favour of the specified solution because of conceptual simplicity and ease of interpretation, despite the overlap between the two components on the AVOIDER subscale.

Split-half reliability coefficients were calculated for the subscales. Alpha coefficients for all subscales are acceptable: seriousmindedness ($\alpha = .41$), planning orientation ($\alpha = .45$), arousal avoidance ($\alpha = .59$), proactive negativism ($\alpha = .63$) and reactive negativism ($\alpha = .51$). Tukey's test for

Table 4.6.

Rotated Component Loadings, Eigenvalues and Percents of Variance for the Two Components

Subscales	Component 1	Component 2
PLANNER	.79	.06
SERIOUS	.83	-.02
AVOIDER	.63	-.44
PROACTIVE	-.12	.77
REACTIVE	.06	.78
Eigenvalues	1.89	1.21
Percentage Variance	37.80	24.20

additivity suggests that all subscale scores need transforming: seriousmindedness, $F(169) = 7.00$, $p<.01$; planning orientation, $F(169) = 12.43$, $p<.0005$; arousal avoidance, $F(169) = 27.56$, $p<.00001$; proactive negativism, $F(169) = 49.84$, $p<.00001$; and reactive negativism, $F(169) = 20.75$, $p<.00001$.

Discussion

As expected, principal components analysis of subscale scores to the TDS and NDS produced two orthogonal components closely resembling the two scales. The specified number of components solution accounted for less total variance (15%) than the default solution. However, the specified solution confirmed the subscale structure of the tests whereas the default solution did not. For the TDS, the inter-subscale correlations were positive and significant, although the correlation between seriousmindedness and planning orientation was higher than between either of these subscales and arousal avoidance. This subscale relationship is similar for Australian undergraduates, and with samples

by Baker (1988), Fontana (1981) and Mathews (1985).

Similarly, for the NDS, the inter-subscale correlations were positive and significant. However, the negative correlation between arousal avoidance and proactive negativism was also significant. This subscale relationship is similar for Australian undergraduates. Again this is surprising given that arousal is not included in the definition of negativism. McDermott (1986) and Tacon and Abner (1989) report a similar significant correlation between proactive negativism and arousal. This suggests that proactively negativist people are more likely than their conformist counterparts to actively seek exciting experiences, or what Apter (1982, p.198) calls a kind of excited defiance. The correlation between proactive negativism and arousal avoidance was responsible for the nonsignificant negative intercorrelation between the two components. Mothers were more telic than Australian students. Perhaps this is because mothers have more responsibility, such as child safety, than do most students. But also it may be that the sample of mothers was more telic because it contained older subjects. Mothers were on average 11 years older than students. This supports Murgatroyd's (1983, in Murgatroyd, 1985) report of a developmental trend in telic dominance. No maturational trend was evident within this sample.

Mothers were more conformist than Australian students. Perhaps mothers modified their responses in the conformist direction because conformity and acceptance are seen as socially desirable of women, especially of mothers. This pattern is similar for women but not for men in the student sample, and with McDermott's (1988b) sample of students. Conversely, perhaps mothers genuinely were more conforming than students. Again, this may be attributable to the mothers' role as caregiver or nurturer. Alternatively, mothers were older than students. This

supports McDermott's (1988a, 1988b) idea that adolescents are more rebellious than adults with adults showing a skew towards the conformist mode. As with Tacon and Abner's (1989) large sample of mature-age students, a maturational trend was evident such that negativism decreases with age. With the present sample, however, a similar relationship was found but was statistically nonsignificant.

The set of data yielded here from a population of mothers suggests that the mothers are more paratelic than telic, and are predominantly conformist. Principal components analysis of subscale scores again confirm the adequacy of the TDS and NDS as measures of the telic-paratelic and negativist-conformist pair of modes respectively.

General Discussion

The convergent and divergent validity obtained for the TDS and NDS for the two different Australian samples support the hypothesis. The positive and significant correlation among subscales of the same measure provided convergent validity. The low correlation among subscales of one measure with those of a different measure provided divergent validity. Despite the undergraduate sample accounting for 63% of the total variance with a default solution, the sample of mothers accounted for a comparable amount of total variance with the solution specified. Furthermore, alpha coefficients suggest the reliability of the subscales is acceptable for both samples. However, for both samples most subscales violated the assumption of additivity. This suggests that subscales should include items in the lower score range to provide better discrimination.

That most subscales violate the assumption of additivity reflects Australian students' positively skewed total TDS scores. This is consistent with total TDS scores in different samples (Baker, 1988; Bowers, 1985; Fontana, 1981; Howard, 1988; Lafreniere, et al., 1988; Martin,

et al., 1987; Martin-Miller & Martin, 1988; McDermott, 1988a; Murgatroyd, et al., 1978; Svebak, 1986; Svebak & Murgatroyd, 1985). Additionally, total NDS scores were slightly positively skewed for Australian students and mothers. Future research should examine the distribution of total NDS scores to see if this skew is a consistent feature of the scale. However, due to the large sample size and the small figures these skews and kurtoses probably do not deviate enough from normality to make a realistic difference in multivariate analyses (Tabachnik & Fidell, 1989).

Campbell and Fiske's (1958) suggestion that construct validity may be tested by utilising a matrix of intercorrelations among subscales rather than items has been helpful in resolving the question of validity for the TDS and NDS. The results support the factor structure found by McDermott and Apter (1988) and Murgatroyd et al., (1978). Future researchers may wish to employ this method to test the validity of the TDS and NDS with scores from different populations. It must be stressed that the multitrait-multimethod matrix technique does not replace "item-level" factor analyses. Clearly there is a need to improve the internal reliability of the TDS. Rather, the technique has been used to confirm that the tests are measuring different modes. How well they measure these modes is a different issue.

Australian normative data provided by the TDS and NDS suggest that students and mothers were generally more paratelic than telic, and were predominantly conformist. Australian students scores differed significantly but not markedly from European and Canadian students scores. This normative data should be helpful to researchers administering these tests with other Australian populations. Researchers should be encouraged by the convergent and divergent validity of the TDS and NDS found here, and use the normative data in comparative studies.

Chapter 5

Study 2

Telic/Paratelic Dominance and Mother-Child Compatibility

As noted in chapter 3, Apter (1982, 1989) and Apter and Smith (1979) hypothesise that many problems of the family arise out of an incompatibility between family members in terms of telic/paratelic or negativist/conformist opposition. Specifically, occupying different dominant modes at the same time inhibits compatibility (mode opposition) compared to sharing the same dominant mode. For example, strongly telic mothers would be more compatible with strongly telic children than would strongly paratelic mothers and vice versa. Or, strongly conformist mothers would be more compatible with strongly conformist children than would strongly negativist mothers and vice versa. Apter and Smith base this hypothesis on clinical experience. However, one may adduce as further evidence a body of literature in Social Psychology showing the effects of similarity on attraction. The aforementioned literature in chapter 3 (e.g., Winslow, 1937) clearly suggests we like those similar to ourselves and dislike those dissimilar to ourselves.

Surprisingly, researchers have not experimentally tested the mode opposition issue. This chapter reports a study that addresses the issue for the telic/paratelic modes. Strongly telic, highly reversible, and strongly paratelic mothers rated their compatibility with strongly telic, highly reversible, and strongly paratelic children. Since mothers may report more compatibility with their children than actually exists, mothers rated

non-related children (see chapter 3). It was hypothesised that strongly telic mothers would be more compatible with a strongly telic child than would strongly paratelic mothers, and strongly paratelic mothers would be more compatible with a strongly paratelic child than would strongly telic mothers.

Method

Mothers

Extreme and highly reversible groups were selected from the sample of 171 mothers described in chapter 4 by using the upper, middle and lower 7% of total telic dominance scores (total range = 23.5, mean = 15.81). The total telic score was chosen, as opposed to a subscale score, to maintain orthogonality with the negativist/conformist pair of modes (see chapter 4). Fourteen mothers comprised the telic group (mean score = 24.57, mean age = 35.1 years). Fourteen mothers comprised the highly reversible group (mean score = 16.18, mean age = 35.1 years). Fifteen mothers comprised the paratelic group (mean score = 7.27, mean age = 35.4 years). The number of mothers in each group ensured good experimental power. The three groups had significantly different total telic dominance scores, $F(2,40) = 495.38$, $p<.00001$. During the study these 43 mothers again completed the TDS, which was up to two years since the original administering. For the two sets of TDS scores $r(42) = .79$ (63% of the common variance), which suggests the scale is reliable. ANOVA showed no group differences due to age, number or age of children. Chi-squares showed no group differences due to occupation of the primary breadwinner in the immediate family, or responsibility for discipline of the children within the family. These 43 mothers were unpaid volunteers.

Design

The study constituted a 3 x 3 (mother's mode x child's mode) factorial

design (see Figure 5.1). Levels of both the independent variables were strongly telic, highly reversible, and strongly paratelic. Mother's mode was between subjects and child's mode was within subjects. Presentation order of the children was fully counterbalanced. The dependent variables were a four-item visual analogue scale, the Parenting Stress Index (PSI) and the Telic State Measure (TSM).

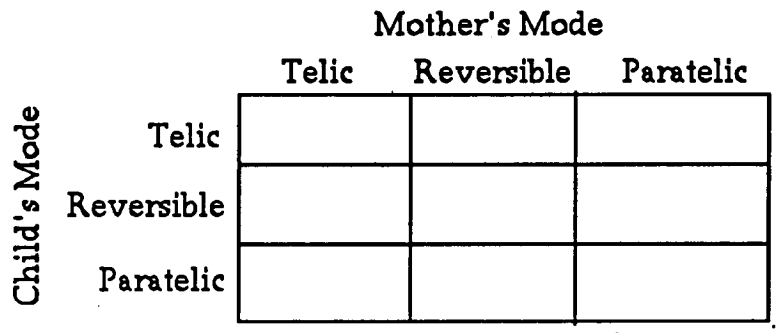

Figure 5.1. The 3 x 3 design whereby telic, highly reversible, and paratelic mothers rate how compatible they feel with telic, highly reversible, and paratelic children.

Materials

Children. The experimenter prepared three fictitious characters each describing their typical Saturday. Each character personified the psychosocial characteristics of a particular metamotivational mode: Tina was strongly telic, Naomi was highly reversible telic/paratelic, and Patricia was strongly paratelic (see Appendix 1). Some evidence (see Ickes, 1985b) suggests the child's sex influences compatibility with its mother. In this study all characters portrayed were girls in an attempt to minimise this influence. All girls were 10 years-old on the basis that younger children have greater license to be paratelic dominant, while older children are expected to be more telic. The "Diction" program from the UNIX *Writers Workbench Suite* (Barron & Rees, 1987) computed reading-ease grades of the descriptions. Readability grades were Kincaid

6.0, Auto 6.3, Flesch 6.1, and Coleman-Liau 4.3. These numbers represent the grade level that would need to be achieved in order to comprehend the passage. This indicates that the language is appropriate for a 10- or 11-year-old, and suggests the vignettes are "age valid." Thirty graduate students correctly classified the descriptions into their respective mode yielding an inter-rater reliability coefficient of .99 (see Appendix 2).

Three 10-year-old girls read the vignettes onto audiotape. The experimenter added an introduction and a summary outlining the main characteristics of the child. The introduction and summary were deliberately leading to reinforce the child's character. These audiotaped and printed vignettes acted as stimuli. Presentation time of each vignette was 2 min 29 s (telic child), 2 min 28 s (highly reversible child), and 2 min 56 s (paratelic child).

Telic State Measure. Svebak and Murgatroyd's (1985) TSM assessed the extent mothers maintained their dominant mode during the experimental situation. The TSM asked subjects to respond to four items. Six-point scales were used with defining adjectives at each end (playful-serious, spontaneous-planning, low arousal - high arousal, preferred high arousal - preferred low arousal), the latter scoring six in each case. Scores in the range one to three for items one, two, and four show the paratelic mode. Scores in the range four to six show the telic mode. The inverse is true for item three. Discrepancies between scores on items three and four show psychological tension (see Apter, 1982). However, these data are disregarded because psychological tension is not related theoretically or practically to this experimental design.

Multi-Item Visual Analogue Scale. Since a review of the literature failed to locate an adequate scale to measure compatibility, the experimenter constructed a scale to measure compatibility. Ten visual

analogue scales were constructed according to specifications outlined by McCormack, Horne, and Sheather (1988). The response measured was compatibility, and this was defined in chapter 3. Appropriate questions introduced the items. Each scale was 100 mm long and had definite cut-off points enabling the length to be grasped as a unit. Short, moderate, readily understood phrases anchored both ends of the scales. Some scales were unipolar and some were bipolar. Twenty mothers rated the "goodness" of these scales by rank ordering them from *most likely to measure compatibility* (1) to *least most likely to measure compatibility* (10) (see Appendix 3). These 20 mothers were not included in the sample of 171 mothers described in chapter 4. The four highest ranked items formed a multi-item visual analogue scale (M-IVAS), which was employed in this study to measure compatibility. The four scales were unipolar and included: This child's character and my character would most probably ... *Clash - Harmonise,* This child and I would ... *Have difficulty getting along - Get along well,* I would feel ... *Compatible - Incompatible* ... living with this kind of child, Living with this kind of child would most often be ... *Pleasant - Unpleasant.* To test the reliability of the M-IVAS, mothers rated the written version of the highly reversible child four weeks after the study. The identity of this child was unknown to increase the likelihood of mothers forgetting how they previously rated the child.

Parenting Stress Index. To test the validity of the M-IVAS, scores from two subscales of Abidin's (1986) PSI, (see Appendix 4) were correlated with scores on the M-IVAS. The subscale "Acceptability of Child to Parent" measures the degree that the child possesses acceptable physical, intellectual and emotional characteristics. The subscale "Child Reinforces Parent" measures the degree that the parent experiences the child as a source of positive reinforcement. The wording of some items

was altered to refer to the children in the vignettes (original wording shown in brackets). The PSI has good validity and reliability (Abidin, 1986).

Apparatus

A Phillips audiocassette recorder (model N2270) played Sony HF cassettes through an external 8-ohm, 5-inch loudspeaker.

Procedure

Mothers were tested individually. On arrival to the laboratory the subject was offered refreshments while completing the TDS. The experimenter read the following instructions.

> I've interviewed lots of 10-year-old girls. I've chosen three to be in this experiment. You will notice that these girls are very different from each other. I asked each girl to describe her typical Saturday, and then to read her description onto this cassette tape. I would like you to listen to each tape and tell me what you think of each girl. [Mothers were shown M-IVAS, PSI and TSM]. Finally, some girls were shy about talking into the microphone, and some girls were not very good readers. Please ignore this - I couldn't help it. Rate the child on *what* she says not on how she says it. Any questions?

The subject listened to the vignettes while reading the printed copy. After each vignette the subject completed the M-IVAS, PSI and TSM. After the final TSM mothers were thanked and debriefed. The study took about 25 min to complete. Subjects returned ratings of the written version of the highly reversible child four weeks after the study using prepaid envelopes. The experimenter telephoned to remind mothers if requested. The identity of the child to be rated later was unknown.

Results

Figure 5.2 presents the results for the children for each group. The results confirm the hypothesis. ANOVA shows a significant Group x Child interaction, $F(2,40) = 3.08$, $p<.05$, indicating that the groups differ at some children. The telic group ($M = 43.27$, $SD = 21.39$) is significantly more compatible with the telic child than is the paratelic group ($M = 61.62$, $SD = 17.80$), $F(2,40) = 3.90$, $p<.05$. The paratelic group ($M = 61.53$, $SD = 27.64$) is significantly more compatible with the paratelic child than is the telic group ($M = 77.86$, $SD = 17.49$), $F(2,40) = 3.26$, $p<.05$.

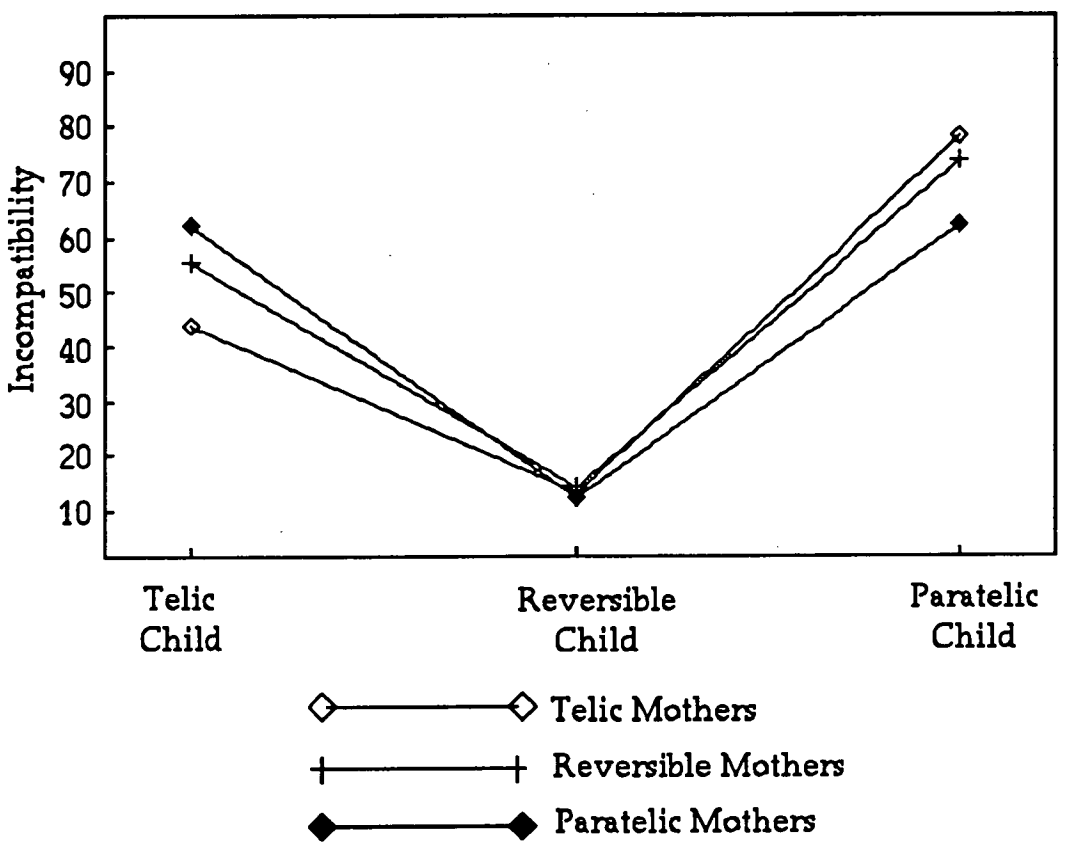

Figure 5.2. Strongly telic, highly reversible, and strongly paratelic mothers felt compatibility with strongly telic, highly reversible, and strongly paratelic 10-year-old girls.

ANOVA shows a main effect of child, $F(2,40) = 107.22$, $p<.00001$. The highly reversible child ($M = 12.97$, $SD = 11.22$) is significantly more

compatible than the telic child (M = 53.48, SD = 20.64), Scheffé $F(2,84)$ = 45.31, $p<.0001$. The telic child is significantly more compatible than the paratelic child (M = 70.74, SD = 21.54), Scheffé $F(2,84)$ = 8.23, $p<.01$. ANOVA shows no main effect for group, $F(2,40)$ = 0.37, or for differences due to the presentation order of the children.

There is some suggestion from the TSM that mothers maintained their dominant mode throughout the study. Scores for the item "spontaneous-planning" are: telic M = 5.0 (SD = 0.87), paratelic M = 3.76 (SD = 0.88), Scheffé $F(1,41)$ = 6.02, $p<.01$. The prediction that the groups should differ on "playful-serious" is not significantly substantiated, Scheffé $F(1,41)$ = 2.29, (telic M = 4.86, SD = 0.95; paratelic M = 4.16, SD = 0.67). Neither is the prediction that the groups should differ in "arousal" significantly substantiated, $F(1,41)$ = 1.55, (telic M = 4.10, SD = 0.93; paratelic M = 3.57, SD = 0.61).

To test for reliability, M-IVAS scores for the highly reversible child during the study and four weeks later were correlated. The scores correlate highly, with $r(40)$ = .71 (50% of the common variance). To test for construct validity, scores from the "child reinforces parent" and "acceptability of child to parent" subscales of the PSI were averaged and correlated with scores on the M-IVAS. All scales correlate significantly: telic child $r(42)$ = .67 (45% of the common variance), highly reversible child $r(42)$ = .57 (32% of the common variance), and paratelic child $r(42)$ = .78 (61% of the common variance).

Given that highly reversible mothers could be in either the telic or paratelic modes when rating the children and that these data would be important to study 5, a separate ANOVA was conducted for these mothers. For highly reversible mothers, the highly reversible child (M = 13.77, SD = 11.93) is significantly more compatible than the telic child

(M = 54.98, SD = 19.65), Scheffé $F(2,13) = 22.66$, $p<.0001$. The telic child is significantly more compatible than the paratelic child (M = 73.5, SD = 14.48), Scheffé $F(2,13) = 4.58$, $p<.05$.

Discussion

This chapter documents strongly telic, highly reversible and strongly paratelic mothers felt compatibility with strongly telic, highly reversible and strongly paratelic children. That strongly telic mothers felt more compatible with a strongly telic child than did strongly paratelic mothers, and vice versa, supports the hypothesis. Presumably this is due to liking those who are similar to ourselves and disliking those who are dissimilar to ourselves (e.g., Winslow, 1937). Paratelic mothers felt negatively reinforced by the child's telic mode in that it was potentially obstructive to their preferred mode. Conversely, telic mothers felt the child's telic mode posed no threat to their mode, or even that the child reinforced their mode.

Similarly, strongly paratelic mothers felt significantly more compatible with a strongly paratelic child than did strongly telic mothers. Again this is probably due to disliking those who are dissimilar to ourselves and liking those who are similar to ourselves. Telic mothers felt negatively reinforced by the child's paratelic mode in that it was potentially obstructive to their preferred mode. Conversely, paratelic mothers felt the child's paratelic mode posed no threat to their mode or even that the child reinforced their mode. Taken together, these data suggest that mode opposition inhibits compatibility, which may in turn contribute to problems in the family (Apter, 1982, 1989; Apter & Smith, 1979).

Mode Dominance Versus Reversibility

An unexpected outcome emerged from the data in that all mothers,

irrespective of metamotivational style (i.e., highly reversible or mode dominant), felt far more compatible with the highly reversible child than with the mode dominant children. Reversal theory does not directly predict this, which raises the question why mode dominance per sé should have such a deleterious effect on compatibility. Since reversal theory proposes and empirical evidence suggests that mode dominant people are unable to reverse between modes at suitable times and places, it follows that mode dominant people are likely to be ill-adaptable, difficult, inflexible and non-versatile in this respect. This is because factors triggering reversals in dominant people have to be much stronger than in highly reversible people, which result in fewer reversals between modes when appropriate. *Ill-adaptability* is defined here as the inability to "conform or maintain flexibility to maximise functioning in the face of environmental change" (*American Psychological Association Thesaurus of Psychological Index Terms*, 1988). Perhaps then, mothers felt incompatible with mode dominant children because mothers perceived them as ill-adaptable. Notice that mode dominance produces two sorts of ill-adaptability. First, mode dominant people are unable to accommodate modes of other people. That is, they resist, frustrate or oppose the other persons mode. One finds it difficult to be serious with someone who is paratelic dominant, or conversely to be playful with someone who is telic dominant. One finds it difficult to be in any mode other than that of the dominant person. Second, mode dominant people are often incongruent with the environment. By failing to reverse into the mode appropriate for that circumstance they inevitably break rules applying to a role or situation. "Partying" during a lecture is an example. Accordingly, people who act in an unaccommodating manner sometimes encounter a hostile social environment because their behaviour elicits hostility from others.

Unlike mode dominant people, highly reversible people are adaptable,

easy, flexible and versatile because they can reverse between modes at suitable times and places. Notice that this is consistent with a point made by Murgatroyd and Apter (1984) and Apter (1989), and Van der Molen's (1985) suggestion that mentally healthy and well-adjusted individuals need to reverse regularly between modes (see chapter 2). In this sense, instability (mode-reversals) not stability (mode dominance) indicates mental health. The ability to reverse between modes, or *reversibility*, produces two sorts of adaptability. First, reversibility allows the individual to accommodate modes of other people. In other words, she or he will not resist, frustrate or oppose the other person's mode. With a highly reversible companion, when the forces of change are otherwise low, one can be serious, playful, conformist or negativist if one wants. However, highly reversible people are neither passive reactors nor pathological conformists to situational conditions. Highly reversible people act in an accommodating and skilled manner to make others comfortable. Second, besides the modes of others, reversibility allows people to establish a harmonious relationship with the physical and social environment (i.e., situational-congruence). Highly reversible people establish this by perceiving, perhaps unconsciously, that everyone must agree on the nature of the situation and keep to the same rules in order for social behaviour to proceed smoothly. For instance, highly reversible people appreciate that it is inappropriate to behave as at a football match during a lecture. They may not necessarily like this but they agree anyway.

Thus it is possible to explain why all mothers were more compatible with the highly reversible child than with the dominant children. The highly reversible child is more accommodating than mode dominant children. For example, in the present study all mothers were probably aware of the telic girl's problems. She was ill-adaptable (e.g., too serious), discordant with the physical and social environment (e.g., uses inappropriate

strategies to obtain and maintain her mode), and should be more playful in play situations like the highly reversible girl. Additionally, all mothers were probably aware of the paratelic girl's problems. She was ill-adaptable (e.g., too playful for her age), discordant with the physical and social environment and should be more serious like the highly reversible girl.

There appear to be no studies directly testing whether mode dominance inhibits compatibility and reversibility enhances compatibility. Nevertheless, one may adduce as evidence two separate bodies of literature. The first body suggests that we perceive mode dominant individuals as *difficult,* and the second body suggests that adaptability enhances compatibility.

Mode Dominant Individuals Are Difficult

Numerous studies suggest we perceive mode dominant individuals as difficult. These include studies of sexual variants (Apter & Smith, 1987), delinquent boys (Bowers, 1985), a disruptive school girl (Blackmore & Murgatroyd, 1980), a disruptive adolescent (Du Plat-Taylor and Hourizi, 1985, cited in Apter, 1989), soccer hooligans (Kerr, 1988), an obsessive man (Murgatroyd & Apter, 1984), a woman with panic attacks (Murgatroyd & Apter, 1986, cited in Apter, 1989), and an anxious woman (Scott, 1985). The forms of dominance in each of these studies involve inappropriate strategies that cause distress and suffering to others. One probably would find it difficult to be compatible with somebody who is the source of distress and suffering. For instance, Blackmore and Murgatroyd (1980) report the case of six-year-old Anne, a disruptive, abusive and aggressive school child. Anne's problem was that she easily felt frustrated, which triggered a switch from what her teacher calls a "work state" to a "disrupt state." For instance, Anne wanted to colour a picture in a book. When

the teacher refused and tried to get her to work at "sums," Anne refused and yelled "fuck off" to the teacher. According to reversal theory, Anne can be said to be predominantly paratelic. Her behavior suggests that she has difficulty reversing from the disruptive-paratelic state (high arousal, activity and spontaneity), to the work-telic state (low arousal, purposefulness). Yet Anne easily reversed in the other direction. Anne's teacher felt confused and frustrated.

Apart from these studies, some characteristics of telic and paratelic dominant people listed in chapter 2 further suggest incompatibility with dominant people. For instance, telic people have a limited sense of humour (Martin, 1984), and tend to behave obsessionally (Fontana, 1981). Conversely, paratelic people are likely to gamble more regularly than is the population norm (Anderson & Brown, 1987), and prefer to have moderate stressors in their lives than no stressors at all (Dobbin & Martin, 1988; Martin, et al., 1987).

Adaptability Enhances Compatibility

Numerous studies exemplify that adaptability enhances compatibility (Kaye, 1982; Rogoff, Gilbride, & Malkin, 1983, both cited by Lamb & Gilbride, 1985; Grotevant, McRoy, & Jenkins, 1988; Levinger, 1986). For example, the goodness-of-fit theory of compatibility (Lerner, 1985; Windle & Lerner, 1986; both cited by Grotevant et al., 1988) maintains that adaptable and understanding parents optimise their infants development. Incompatibility occurs when parents are unable to accommodate their childrens' needs. For instance, Grotevant et al. (1988) interviewed 50 adopted adolescents in residential treatment, 50 nonadopted adolescents in residential treatment, and their parents and caseworkers. Among the results was the finding that adoptive parents' adherence to a rigid belief system decreased compatibility with the adolescent either by diminishing or accentuating the importance of the

child's heredity to an extreme degree. Conversely, adoptive parents' maintenance an adaptable approach to the relationship increased compatibility by acknowledging the potential role that the child's heredity may play while still taking at least partial responsibility for the child's socialisation.

A second example is in Levinger (1986) who delineated four perspectives on compatibility in short- and long-term relationships. Two perspectives are of interest here. First, compatibility may be viewed as patterns of accommodation adopted by a couple. Second, compatibility was enhanced in couples adaptable to each others' needs in the face of mutual conflict.

Additionally, some models of family functioning also emphasise the need for adaptability. Adaptability here is the ability for a family to change its power structure, role-relationships, and relationship rules in response to various stresses. For instance, Beaver's (1981) systems model relates adaptability to competence and places it on a continuum (i.e., the more the better). Olson, Sprenkle, and Russell's (1979) circumplex model describes adaptability as change and hypothesises a curvilinear relationship with too little or too much adaptability being potentially problematic.

Arousal Orientation

Curiously, while mode dominant children were less compatible than the highly reversible child, all mothers felt the telic child as more compatible than the paratelic child. Anecdotes from mothers after the study suggest why this might be so. One telic mother said "I can cope with [someone] moping around the house all day, but not with someone who restlessly disturbs the peace." One highly reversible mother said "I've enough of this mania in myself and I don't want no more." These anecdotes allude

to the influence of arousal orientation on compatibility, rather than to the characteristics of playful-serious or present-future orientation. Specifically, the results and the anecdotes tentatively suggest that arousal-avoidance is preferable to arousal-seeking.

Reliability and Validity

The TSM indicated that mothers may not have maintained their dominant mode during the study. TSM scores on the "playful-serious" and "arousal" items reflected the predicted group differences but did not reach statistical significance. TDS scores suggested the groups were different. Perhaps the dependent variable effected the TSM scores. As chapter 3 suggested, mothers are likely to be cautious or feel threatened when admitting their felt incompatibility with children due to the effects of social desirability and guilt. Notice that both groups scored towards the *serious* pole for the "playful-serious" item, and towards the *high* pole for the "arousal" item. There is some evidence suggesting that threat induces the telic mode and increases arousal in highly reversible telic/paratelic subjects (Svebak, Storfjell, & Dalen 1982). Other evidence suggests that threat does not differentiate arousal in telic dominant and paratelic dominant subjects (Svebak, 1984). In this study it appears that here is a case where perceived threat increased seriousmindedness in paratelic mothers and arousal in telic mothers.

The M-IVAS appears reliable and valid for the telic/paratelic modes. The M-IVAS scores for the highly reversible child during the study and for four weeks correlated highly. This suggests that the M-IVAS is consistent over time, under different conditions, and with the stimulus presented in the aural and written modes. The high correlations between the M-IVAS and the PSI suggest the M-IVAS is measuring compatibility. Mothers do find strongly telic, highly reversible, and strongly paratelic children differentially rewarding and acceptable.

Conclusion

The data provided here for the telic/paratelic modes support Apter (1982, 1989) and Apter and Smith's (1979) idea that mode opposition inhibits compatibility, at least for mothers and 10 year old girls. A similar design could easily be used to test fathers' compatibility with children. The data also suggest that mode dominance compared to reversibility has a marked inhibitory effect on compatibility despite metamotivational style. In terms of problems in the family, it appears that reversibility and mode dominance have more to say about compatibility than does mode opposition. Occupying opposite dominant modes does not do much for compatibility, but neither does sharing the same dominant mode compared to the highly reversible child. Since incompatibility between people is more ubiquitous with mode dominance than mode opposition, difficulties in the family due to incompatibility may be more common than previously realised. The relative contributions to compatibility from the variables mode opposition, mode dominance and reversibility need to be verified with other pairs of modes.

Chapter 6

Study 3

Conformist/Negativist Dominance and Mother-Child Compatibility

Many problems of the family are due to an incompatibility between family members in terms of telic/paratelic or conformist/negativist opposition, according to Apter (1982, 1989) and Apter and Smith (1979). Telic dominant people are more compatible with telic dominant people than are paratelic dominant people and vice versa. Or, conformist dominant people are more compatible with conformist dominant people than are negativist dominant people and vice versa. Although Apter and Smith base this hypothesis on clinical experience, one may cite as further evidence a body of literature suggesting that similarity increases attraction whereas dissimilarity decreases attraction (e.g., Winslow, 1937). Thus far, mothers ratings of non-related 10-year-old girls in study 2 corroborate this hypothesis for the telic/paratelic pair of modes. What remains unknown, however, is the effect of mode opposition on compatibility with other pairs of modes.

Data from study 2 also suggest that mothers were far more compatible with the highly reversible child than with telic or paratelic dominant children. In terms of problems of compatibility in the family, incompatibility due to mode dominance would appear to be much more common and therefore much greater than incompatibility due to mode opposition. Reversal theory does not predict that mode dominance inhibits compatibility. However, Apter (1989), Murgatroyd and Apter

(1984) and Van der Molen (1985) suggest that mode-instability not mode-stability indicates mental health. Yet in retrospect it seems obvious that mode dominance inhibits compatibility while reversibility enhances compatibility. This is because mode dominant individuals are ill-adaptable whereas highly reversible individuals are adaptable. For instance, as aforementioned in chapter 5, the findings of several studies suggest that we perceive people who do not reverse between modes as difficult (e.g., Blackmore & Murgatroyd, 1980). The findings of other studies reveal that people feel compatible with adaptable individuals (e.g., Kaye, 1982; Rogoff et al., 1983, both cited by Lamb & Gilbride, 1985; Levinger, 1986; Grotevant et al., 1988).

Study 2 tested compatibility with the telic/paratelic pair of modes. However, the influence of the variables mode opposition, mode dominance and reversibility on compatibility with the conformist/negativist pair of modes is unresolved. This chapter reports a study similar to study 2 to redress the issue for the conformist/negativist modes. Two hypotheses were formulated. First, as predicted by Apter (1982, 1989) and Apter and Smith (1979), and as suggested by the results from study 2, strongly conformist mothers feel more compatible with a strongly conformist child than do strongly negativist mothers. Strongly negativist mothers feel more compatible with a strongly negativist child than do strongly conformist mothers. Second, since evidence suggests we feel compatible with adaptable individuals, and since studies suggest we perceive mode dominant people as difficult, it follows that mothers should feel more compatible with a highly reversible child than with mode dominant children despite the mothers metamotivational style (i.e., highly reversible or mode dominant).

Method

Mothers

Extreme and highly reversible groups were selected from the sample of 171 mothers described in chapter 4 by using the upper, middle and lower 7% to 8% of total negativist dominance scores (total range = 10.5, mean = 2.37). The total negativism score was chosen, as opposed to a subscale score, to maintain orthogonality with the telic/paratelic pair of modes (see chapter 4). Thirteen mothers comprised the conformist group (mean score = 0.0, mean age = 34.5 years). Sixteen mothers comprised the highly reversible group (mean score = 2.06, mean age = 32.6 years). Twelve mothers comprised the negativist group (mean score = 6.04, mean age = 35.3 years). The number of mothers in each group ensured good experimental power. The three groups had significantly different total negativism dominance scores, $F(2,38) = 145.36$, $p<.0001$. During the study these 41 mothers again completed the NDS, which was up to two years since the original administering. For the two sets of NDS scores $r(41) = .74$ (55% of the common variance), which suggests the scale is reliable. ANOVA showed no group differences due to age, number or age of children. Chi-squares showed no group differences due to occupation of the primary breadwinner in the immediate family or responsibility for discipline. No mother had completed study 2. These 41 mothers were unpaid volunteers.

Design

The design was identical with the design of study 2. The dependent variables were the M-VAS, PSI and the Negativism State Measure (NSM).

Materials and Apparatus

The M-IVAS, PSI and apparatus were identical with those used in study 2.

Children. The experimenter constructed three audiotape vignettes of 10-year-old children using principles similar to those used to construct vignettes in study 2. Carol was strongly conformist, Beth was highly reversible negativist/conformist, and Nicole was strongly negativist (see Appendix 5). The readability grade of the descriptions was Kincaid 5.6, Auto 5.7, Flesch 5.8, and Coleman-Liau 3.6. This indicates that the language is appropriate for a 10-year-old, and suggests the vignettes are "age valid." Thirty graduate students correctly classified the descriptions into their respective modes yielding an inter-rater reliability coefficient of .99. Presentation time of each vignette was 3 min 8 s (conformist child), 3 min 5 s (highly reversible child), and 3 min 15 s (negativist child). Three 10-year-old girls read the vignettes onto audiocassette tape. These girls were different from the girls who read the vignettes in study 2.

Negativism State Measure. The experimenter constructed an NSM to measure the extent mothers maintained their dominant mode during the experimental situation (see Figure 6.1). As with Svebak and Murgatroyd's (1985) TSM, this measure asked subjects to respond to four items. Six-point scales were used with defining adjectives at each end (rebellious-conforming, vengeful-accepting, low arousal - high arousal, preferred high arousal - preferred low arousal), the latter scoring six in each case.

The following additional instructions were given to the subject about the meaning of items included in the NSM.

1. "Rebellious" means wanting to do something contrary for fun, excitement, or just for the "hell of it."
2. "Conforming" means complying with rules, regulations and general customs of the present situation.

3. "Vengeful" means wanting to get revenge or be vindictive because of a disappointment, rebuff or frustration.
4. "Accepting" means submitting to or tolerating the situation, decision or explanation.
5. "Arousal" means how "worked up" you felt when listening.
6. "Preferred Arousal" is how aroused you *wanted* to be when listening not necessarily were.

Rebellious	1	2	3	4	5	6	Conforming
Vengeful	1	2	3	4	5	6	Accepting
Low Arousal	1	2	3	4	5	6	High Arousal
Preferred High Arousal	1	2	3	4	5	6	Preferred Low Arousal

Figure 6.1. The Negativism State Measure.

While arousal is not included in the definition of negativism since negativism is theoretically orthogonal to the telic/paratelic dimensions, exploratory "arousal" items were included in the NSM. These "arousal" items are justified empirically given the correlations between proactive negativism and arousal found in study 1, and the same relationship reported by Tacon and Abner (1989). The Rebellious-Conforming pair of constructs attempted to measure the proactive form of negativism. The Vengeful-Accepting pair of constructs attempted to measure the reactive form of negativism.

The NSM was scored as follows. Scores in the range one to three for items one, two, and four show the negativist mode. Scores in the range four to six show the conformist mode. The inverse is true for item three.

As with Svebak and Murgatroyd's (1985) TSM, discrepancies between scores on items three and four show psychological tension (see Apter, 1982). However, these data are disregarded because psychological tension is not related theoretically or practically to this experimental design.

Procedure

The procedure was the same as that used in study 2 and took about 25 min to complete.

Results

Figure 6.2 presents the results for the children for each group. The results partially confirm the hypothesis that mode opposition inhibits compatibility. ANOVA shows a significant Group x Child interaction, $F(2,37) = 2.69$ $p<.05$, suggesting that the groups differ at some children. The conformist group ($M = 31.0$, $SD = 17.74$) is significantly more compatible with the conformist child than is the negativist group ($M = 56.67$, $SD = 24.67$), $F(2,37) = 7.96$, $p<.001$. However, the negativist group ($M = 71.58$, $SD = 23.65$) is not significantly more compatible with the negativist child than is the conformist group ($M = 73.46$, $SD = 23.61$), $F(2,37) = 0.96$.

ANOVA shows a main effect of child, $F(2,37) = 103.37$, $p<.00001$. The highly reversible child ($M = 13.51$, $SD = 9.70$) is significantly more compatible than the conformist child ($M = 47.63$, $SD = 23.90$), Scheffé $F(2,80) = 32.62$, $p<.0001$. The conformist child is significantly more compatible than the negativist child ($M = 72.37$, $SD = 20.23$), Scheffé $F(12,80) = 17.14$, $p<.001$. ANOVA shows no main effect for group, $F(2,37) = 0.06$, or for differences due to the presentation order of the children.

There is some suggestion from the NSM that mothers maintained their

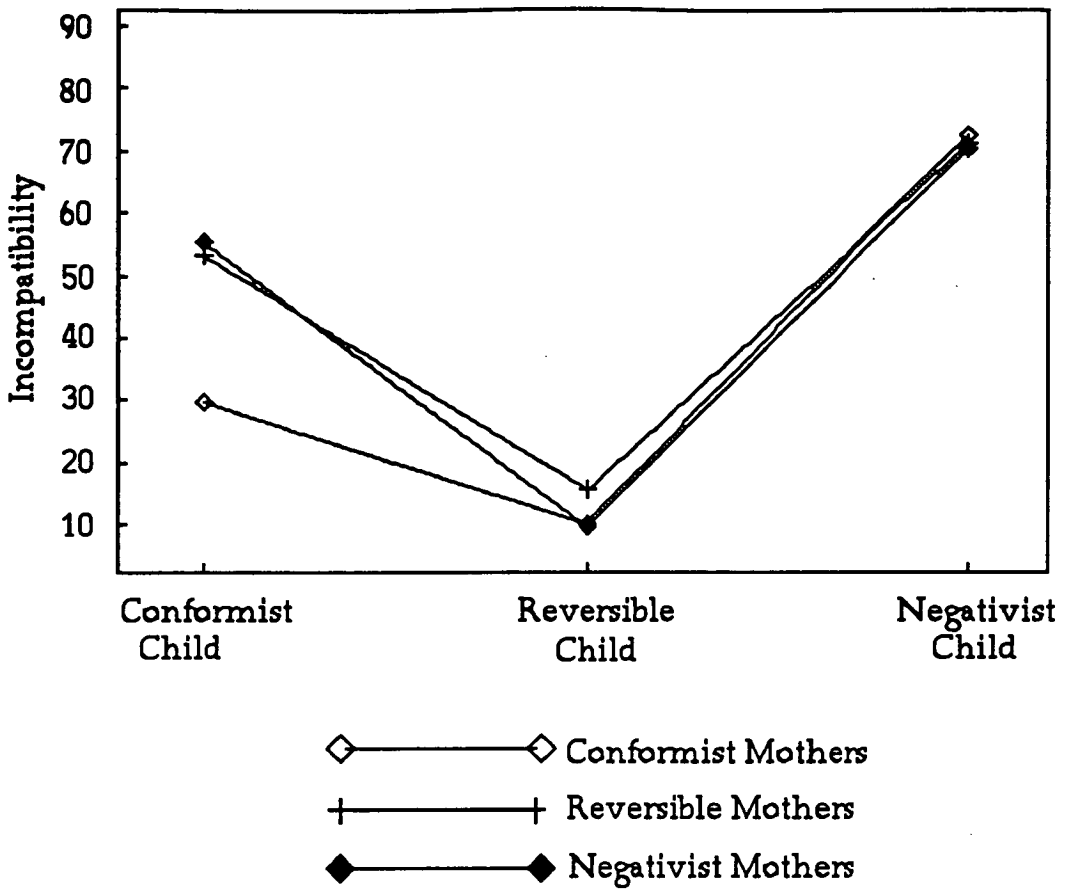

Figure 6.2. Strongly conformist, highly reversible, and strongly negativist mothers felt compatibility with strongly conformist, highly reversible, and strongly negativist 10-year-old girls.

dominant mode throughout the study. Scores for the item "rebellious-conforming" are: conformist M = 4.21 (SD = 0.48), negativist M = 3.25 (SD = 1.01), Scheffé $F(2,37) = 4.14$, $p<.01$. The prediction that the groups should differ in "vengeful-accepting" is not significantly supported, Scheffé $F(2,37) = 0.18$, (conformist M = 4.21, SD = 0.55; negativist M = 4.03, SD = 0.80). Groups did not differ on the exploratory "actual arousal" item, Scheffé $F(2.37) = 0.70$, (conformist M = 3.67, SD = 0.87; negativist M = 4.06, SD = 0.76).

To test for reliability, M-IVAS scores for the highly reversible child during the study and four weeks later were correlated. The scores

correlate significantly, with $r(37) = .51$ (27% of the common variance). To test for construct validity, scores from the "child reinforces parent" and "acceptability of child to parent" subscales of the PSI were averaged and correlated with scores on the M-IVAS. All scales correlate significantly: conformist child $r(39) = .73$ (54% of the common variance), highly reversible child $r(39) = .58$ (34% of the common variance), and negativist child $r(39) = .49$ (22% of the common variance).

Given that highly reversible mothers could be in either the conformist or negativist modes when rating the children and that these data would be important to study 6, a separate ANOVA was conducted for these mothers. For highly reversible mothers, the highly reversible child ($M = 17.69$, $SD = 10.59$) is significantly more compatible than the conformist child ($M = 54.38$, $SD = 21.71$), Scheffé $F(2,15) = 19.68$, $p<.0001$. The conformist child is significantly more compatible than the negativist child ($M = 72.08$, $SD = 15.60$), Scheffé $F(2,15) = 4.58$, $p<.05$.

Discussion

This chapter documents strongly conformist, highly reversible and strongly negativist mothers felt compatibility with strongly conformist, highly reversible and strongly negativist children. That strongly conformist mothers felt more compatible with a strongly conformist child than did strongly negativist mothers, supports the hypothesis. This is probably due to liking those similar to ourselves and disliking those dissimilar to ourselves (i.e., Winslow, 1937). Conformist mothers were probably aware that the conformist girl was difficult. She was ill-adaptable (e.g., too conforming) and discordant with the physical and social environment (e.g., uses innapropriate strategies to obtain and maintain her mode). Nevertheless, conformist mothers felt the child posed no threat to their mode or even that the child reinforced their mode. Conversely, negativist mothers were also probably aware of the

conformist girl's shortcomings. Unlike conformist mothers, however, negativist mothers felt negatively reinforced by her mode in that it was potentially obstructive to their mode.

Strongly negativist mothers, however, did not feel more compatible with a strongly negativist child than did strongly conformist mothers. Both negativist and conformist mothers felt negatively reinforced by this girl's mode such that it was potentially obstructive to their modes. This may be an exception to the idea of liking those who are similar to ourselves and disliking those who are dissimilar to ourselves. Perhaps this finding should be unsurprising given that the essence of the negativist mode is to act against some requirement, even if this requirement is to act negativistly. These data support Apter (1982, 1989) and Apter and Smith's (1979) hypothesis that mode opposition inhibits compatibility for the conformist mode but not for the negativist mode.

The hypothesis that mothers felt more compatible with a highly reversible child than with either mode dominant children despite metamotivational style was supported. Mothers see the highly reversible child as more adaptable than the dominant children. This concurs with this finding in study 2 and with the body of literature suggesting that adaptability enhances compatibility (Kaye, 1982; Rogoff et al., 1983, both cited by Lamb & Gilbride, 1985; Levinger, 1986; Grotevant, et al., 1988). As with study 2, mothers see the highly reversible child as harmonising with the physical and social environment and as posing no obstacle to their modes. Taken together, the results from studies 2 and 3 suggest that reversibility enhances compatibility despite metamotivational style for the somatic pairs of modes.

Conversely, mothers feel incompatible with mode dominant children. This concurs with the body of literature suggesting that we perceive mode dominant individuals as difficult (e.g., Blackmore & Murgatroyd,

1980). This is because mode dominant children are ill-adaptable, and are therefore discordant with the physical and social environment, and can potentially obstruct the mother's mode. Mothers do not find these children attractive or pleasant, and would prefer not to spend time with them if possible. Taken together, the results from studies 2 and 3 suggest that mode dominance inhibits compatibility despite metamotivational style for the somatic pairs of modes.

While mothers felt less compatible with mode dominant children than with the highly reversible child, all mothers felt more compatible with the conformist child than with the negativist child. Reversal theory does not predict this at all. Recall that mothers in study 2 felt more compatible with the telic child than with the paratelic child. While the telic and conformist modes are essentially different, and the paratelic and negativist modes are essentially different, the former are arousal-avoiding whereas the latter are arousal-seeking. It is possible that this unexpected influence on compatibility is due to the arousal orientation component of these pairs of modes. Specifically, mothers like the arousal-avoiding children more than the arousal-seeking children. Taken together, the results from studies 2 and 3 suggest that arousal orientation influences compatibility despite metamotivational style for the somatic pairs of modes.

There may be at least two reasons for the effect of this unexpected "hidden" variable. First, to some extent telic and conformist children are withdrawn or at least quiet. They may have fewer friends, seldom play with children their age, and lack the social skills necessary to have fun. To some extent paratelic and negativist children are boisterous or at least attracting. They may fight, yell, and refuse to comply with requests. Thus, it could be that the difficulties associated with paratelic or negativist children are more "visible," obvious or noticeable than with those of telic or conformist children. Paratelic and negativist children

simply draw attention to themselves. Some evidence suggests that difficulties are more visible in attracting children than in those who are quiet. For instance, Walker, Severson, Haring & Williams, (1986) noted that teachers over-refer students exhibiting externalising problems (e.g., behaviour problems) and under-refer students exhibiting internalising problems (e.g., withdrawn). Second, since the telic and conformist children tend to be more withdrawn and quiet they may seem more "normal" and therefore "acceptable" as girls than the boisterous and attracting paratelic and negativist girls. Thus the telic and conformist modes may contain more elements stereotypical of girls, while the paratelic and negativist modes contain more elements stereotypical of boys. It would be interesting to test whether rating 10-year-old boys reduces or even reverses the influence of arousal orientation.

If arousal orientation is a variable influencing compatibility with children, and if mode dominance really does inhibit compatibility, then their effects should be evident despite the raters' somatic mode. One way to test these hypotheses is to ask strongly telic or paratelic mothers to rate strongly negativist and conformist children, and strongly negativist or conformist mothers to rate strongly telic and paratelic children.

The NSM suggested that mothers may not have maintained their dominant mode during the study. The NSM scores on the "vengeful-accepting" and "arousal" items reflected the predicted group differences but did not reach statistical significance. Yet the NDS suggests the groups were substantially different. Notice that both groups scored towards the *accepting* pole for the "vengeful-accepting" item and towards the *high* pole for the "arousal" item. As with the TSM in study 2, perhaps the dependent variable effected the NSM scores. Mothers are likely to be cautious or feel threatened when admitting their felt incompatibility with children due to the effects of social desirability and guilt. Maybe perceived threat increased arousal in mothers as they did in study 2 and with Svebak et al.'s (1982) subjects. Maybe social desirability made

mothers pretend they were more accepting than they were. Another possibility is that the group of strongly negativist mothers were not strongly negativist dominant. As noted in chapter 4, NDS scores for the total sample of mothers was positively skewed such that the top 7% had a mean score of only 6.04 out of a possible score of 14. As Apter and Svebak (1986, cited in Apter, 1989) found, less extreme subjects are more vulnerable to factors liable to induce reversals than more extreme subjects. Consequently, the requirement to comply with the experimental procedure may have induced the conformist mode in some negativist mothers.

The M-IVAS appears reliable and valid for the conformist/negativist modes. The M-IVAS scores for the highly reversible child during the study and for four weeks correlated highly. This suggests that the M-IVAS is consistent over time, under different conditions, and with the stimulus presented in the aural and written modes. The high correlations between the M-IVAS and the PSI suggest the M-IVAS is valid. Mothers do find strongly conformist, highly reversible, and strongly negativist children differentially rewarding and acceptable.

The data provided here for the conformist/negativist modes support the idea that mode opposition for the conformist mode inhibits compatibility. There is no evidence that mode opposition with the negativist mode inhibits compatibility. Perhaps nobody likes this kind of child. The data also confirm that mode dominance inhibits compatibility compared to reversibility. Finally, the data is consistent with the interpretation that arousal orientation has a mediating effect on compatibility, which indicates that reversal theory has more to say about compatibility.

Chapter 7

Study 4

Telic and Paratelic Mothers' Compatibility with Negativist and Conformist Children, and Negativist and Conformist Mothers' Compatibility with Telic and Paratelic Children

As noted, Apter (1982, 1989) and Apter and Smith (1979) predict that many problems of the family arise out of an incompatibility between family members in terms of telic/paratelic or conformist/negativist opposition. Results from studies 2 and 3 of mothers' ratings of non-related 10-year-old girls verify this prediction for the telic, paratelic and conformist modes. There is no evidence that mode opposition with the negativist mode inhibits compatibility.

An unexpected result from studies 2 and 3 was that mode dominance has a global inhibitory effect on compatibility despite metamotivational style (i.e., highly reversible or mode dominant). In terms of problems in the family, it appears that incompatibility due to mode dominance represents a much greater threat to family harmony. In retrospect it seems obvious that mothers should feel incompatible with mode dominant children compared with highly reversible children in that the former are usually ill-adaptable. If the increase in compatibility with highly reversible children really is due to their adaptability, the influence should be evident despite the mothers' modes. For example, strongly telic or paratelic mothers should feel more compatible with a negativist/conformist reversible child than with strongly negativist or conformist children. Similarly, strongly negativist or conformist

mothers should feel more compatible with a telic/paratelic reversible child than with strongly telic or paratelic children.

Another unexpected result from studies 2 and 3 was that mothers were more compatible with the telic and conformist children than with the paratelic and negativist children. Reversal theory did not predict this. While the telic and conformist modes are essentially different, and the paratelic and negativist modes are essentially different, the former are arousal-avoiding whereas the latter are arousal-seeking. This unexpected influence on compatibility might be due to the arousal orientation component of the two pairs of modes. Thus far it appears that arousal-seeking has an additional inhibitory effect on compatibility. Two plausible explanations for the effect of this unexpected arousal orientation variable were discussed in study 3. Maybe the difficulties associated with the paratelic and negativist children are more visible than with those of the telic and conformist children (Walker, et al., 1986). Maybe elements of the telic and conformist modes are more stereotypical of girls, thus making the telic and conformist girls more seem acceptable. If this hidden variable is arousal orientation, its influence should be evident despite the rater's mode for the pair of somatic modes. For example, strongly telic or paratelic mothers should be more compatible with a strongly conformist child than with a strongly negativist child. Similarly, strongly conformist or negativist mothers should be more compatible with a strongly telic child than with a strongly paratelic child.

This chapter reports a study whereby mode dominant mothers from study 2 rated the children from study 3, and mode dominant mothers from study 3 rated the children from study 2. Two hypotheses were formulated. First, since evidence suggests we like people who are adaptable, and if arousal-seeking has an additional inhibitory effect on compatibility, then strongly telic or paratelic mothers should feel most

compatible with a conformist/negativist reversible child, second most compatible with a strongly conformist child, and least compatible with a strongly negativist child. Second, strongly conformist or negativist mothers feel most compatible with a telic/paratelic reversible child, second most compatible with a strongly telic child, and least compatible with a strongly paratelic child. No effect about mode opposition was hypothesised since the pairs of modes are conceived to be orthogonal and were found so with this sample of mothers (see chapter 4).

Method

Mothers

Mothers in the strongly telic and paratelic groups from study 2 (n = 29) and mothers in the strongly conformist and negativist groups from study 3 (n = 25) formed four groups. These 54 mothers were unpaid volunteers.

Design

The study constituted a 2 x 3 (mothers mode x child's mode) experimental design (see Figure 7.1). In the first instance levels of mother's mode was strongly telic or paratelic and levels of child's mode was strongly conformist, highly reversible and strongly negativist. In the second instance levels of mother's mode was strongly conformist or negativist and levels of the child's mode was strongly telic, highly reversible and strongly paratelic. In both instances, mother's mode was between subjects while child's mode was within subjects. Presentation order of the children was fully counterbalanced. The dependent variables were the M-IVAS, PSI, TSM and NSM.

Materials and Apparatus

The materials and apparatus were identical with those used in studies 2 and 3.

Child's Mode	Mother's Dominant Mode: Strongly Telic or Strongly Conformist	Mother's Dominant Mode: Strongly Paratelic or Strongly Negativist
Strongly Telic or Strongly Conformist		
Reversible		
Strongly Paratelic or Strongly Negativist		

Figure 7.1. The 2 x 3 design for study 4. Telic and paratelic mothers rate how compatible they feel with conformist, highly reversible and negativist children. Conformist and negativist mothers rate how compatible they feel with telic, highly reversible and paratelic children.

Procedure

The procedure and instructions were identical with those used in studies 2 and 3. The study took about 25 min to complete. Four weeks after the study, telic and paratelic mothers rated the written version of the conformist/negativist reversible child, and conformist and negativist mothers rated the written version of the telic/paratelic reversible child. The identity of the child to be rated later was unknown.

Results

Telic and Paratelic Mothers' Ratings of Conformist, Highly Reversible and Negativist Children

Figure 7.2 presents the results for the children for each group. The results confirm the hypothesis. ANOVA shows a main effect of children, $F(1,29) = 225.27$, $p<.00001$. The highly reversible child ($M = 14.07$, $SD =$

11.72) is significantly more compatible than the conformist child (M = 35.16, SD = 17.83), Scheffé $F(1,27) = 17.98$, $p<.0001$. The conformist child is significantly more compatible than the negativist child (M = 87.29, SD = 10.82), Scheffé $F(1,27) = 109.83$, $p<.00001$. ANOVA shows no main effect for group, $F(1,27) = 0.48$, or Group x Child interaction, $F(1,27)$ = 0.57, or for differences due to the presentation order of the children.

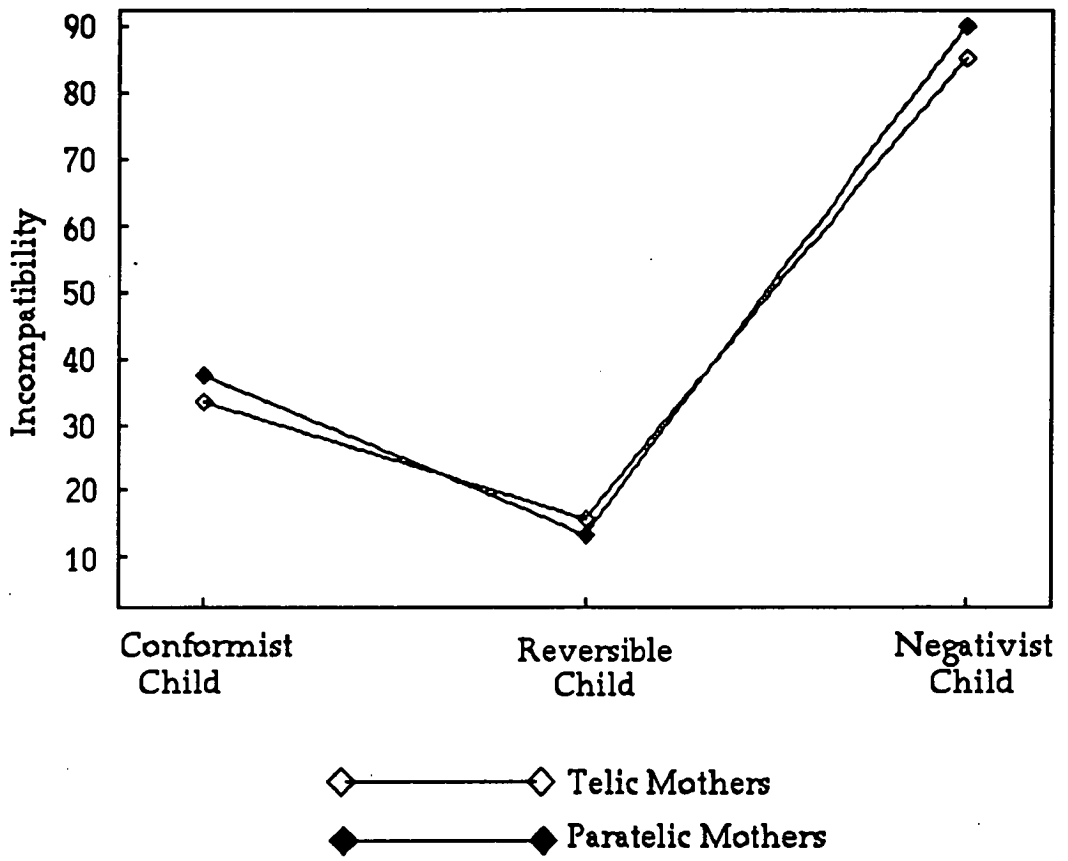

Figure 7.2. Strongly telic and strongly paratelic mothers felt compatibility with strongly conformist, highly reversible, and strongly negativist 10-year-old girls.

There is no suggestion from the TSM that mothers maintained their dominant mode throughout the study. Scores for the item "spontaneous-planning" are: telic M = 5.02 (SD = 0.82), paratelic M = 4.49 (SD = 0.71), Dunnett $t(1,27) = 1.88$. Scores for the item "playful-serious" are: telic M = 4.64 (SD = 1.18), paratelic M = 4.16 (SD = 0.78),

Dunnett $t(1,27) = 1.32$. Scores for the item "arousal" are: telic $M = 3.39$ ($SD = 1.04$), paratelic $M = 3.73$($SD = 0.89$), Dunnett $t(1,27) = 0.41$.

To test for reliability, M-IVAS scores for the highly reversible child during the study and four weeks later were correlated. The scores correlate highly, with $r(29) = .70$ (48% of the common variance). To test for construct validity, scores from the "child reinforces parent" and "acceptability of child to parent" subscales of the PSI were averaged and correlated with scores on the M-IVAS. All scales correlate significantly: conformist child $r(29) = .62$ (39% of the common variance), highly reversible child $r(29) = .50$ (25% of the common variance), and negativist child $r(29) = .66$ (44% of the common variance).

Conformist and Negativist Mothers' Ratings of Telic, Highly Reversible and Paratelic Children

Figure 7.3 presents the results for the children for each group. The results confirm the hypothesis. ANOVA shows a main effect of children, $F(1,23) = 147.02$, $p<.00001$. The highly reversible child ($M = 18.42$, $SD = 7.42$) is significantly more compatible than the telic child ($M = 52.41$, $SD = 17.28$), Scheffé $F(1,23) = 52.37$, $p<.0001$. The telic child is significantly more compatible than the paratelic child ($M = 72.59$, $SD = 14.79$), Scheffé $F(1,23) = 18.45$, $p<.001$. ANOVA shows no main effect for group, $F(1,23) = 1.90$, or Group x Child interaction, $F(1,23) = 0.63$, or for the presentation order of the children.

There is no suggestion from the NSM that mothers maintained their dominant mode throughout the study. Scores for the item "rebellious-conforming" are: conformist $M = 3.87$ ($SD = 0.63$), negativist $M = 3.89$ ($SD = 0.54$), Dunnett $t(1,23) = 0.07$. Scores for the item "vengeful-

accepting" are: conformist M = 4.08 (SD = 0.67), negativist M = 4.0 (SD = 0.68), Dunnett $t(1,23)$ = 0.29. Neither did the groups differ on the exploratory "actual arousal" item: conformist M = 3.59 (SD = 1.08), negativist M = 3.97 (SD = 0.69), Dunnett $t(1,23)$ = 1.04.

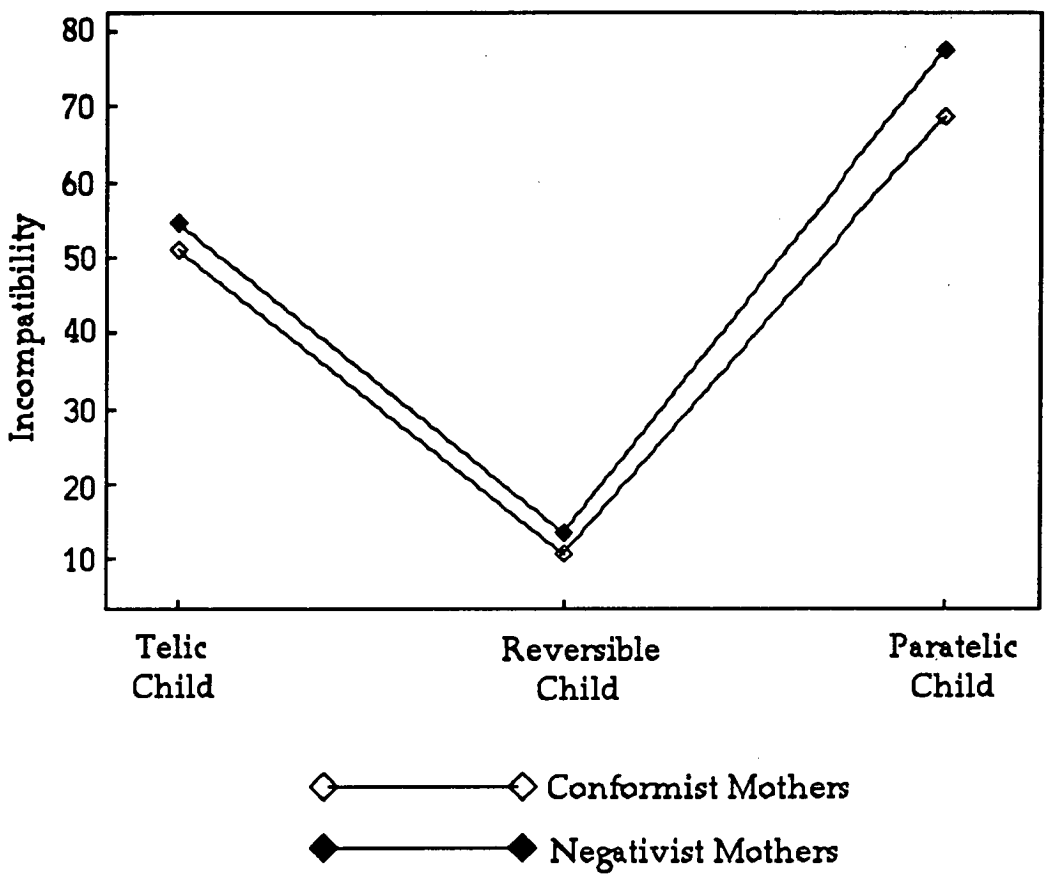

Figure 7.3. Strongly conformist and strongly negativist mothers felt compatibility with strongly telic, highly reversible, and strongly paratelic 10-year-old girls.

M-IVAS scores for the highly reversible child during the study and four weeks later correlate significantly, with $r(23)$ = .43 (17% of the common variance). Scores from two subscales of the PSI were averaged and correlated with scores on the M-IVAS. All scales correlate significantly: telic child $r(20)$ = .54 (29% of the common variance), highly reversible child $r(21)$ = .52 (27% of the common variance), and paratelic child $r(20)$ = .42 (18% of the common variance).

Discussion

This study tested strongly telic and paratelic mothers compatibility with strongly conformist and negativist children, and strongly conformist and negativist mothers compatibility with strongly telic and paratelic children. The data support both hypotheses. Strongly telic or paratelic mothers felt most compatible with the conformist/negativist reversible child, second most compatible with the conformist child, and least compatible with the negativist child. Alternatively, strongly conformist or negativist mothers felt most compatible with the telic/paratelic reversible child, second most compatible with the telic child, and least compatible with the paratelic child. Thus, mothers find highly reversible girls most attractive, pleasant, and would prefer to spend time with them. These results concur with the results of studies 2 and 3 and with the literature suggesting that adaptability enhances compatibility (Kaye, 1982; Rogoff et al., 1983, both cited by Lamb & Gilbride, 1985; Grotevant et al., 1988; Levinger, 1986). Moreover, these results extend the findings from studies 2 and 3 by suggesting that reversibility enhances compatibility despite the rater's mode. Taken as a whole then, the results from studies 2, 3 and 4 suggest that reversibility enhances compatibility despite the rater's metamotivational style or mode for the somatic pairs of modes.

Mothers found mode dominant children less attractive and unpleasant to be around. These results support the findings of studies 2 and 3 and with the literature suggesting that we perceive mode dominant individuals as difficult (e.g., Blackmore & Murgatroyd, 1980). Taken as a whole then, the results from studies 2, 3 and 4 suggest that mode dominance inhibits compatibility despite the rater's metamotivational style or mode for the somatic pairs of modes.

Insofar as mode dominance inhibited compatibility, arousal-avoiding children were significantly more compatible than arousal-seeking children. Again, this not only supports the findings of studies 2 and 3 but extends their findings by suggesting that arousal orientation influences compatibility despite the rater's mode. Taken as a whole then, the results from studies 2, 3 and 4 suggest that arousal orientation influences compatibility despite the rater's metamotivational style or mode for the somatic pairs of modes.

Tables 7.1 and 7.2 illustrate the patterns of mothers (columns) incompatibility with the children (rows) due to the hypothetical variables mode opposition (i.e., two or more highly reversible or mode dominant individuals occupying the opposite mode at the same time in any environmental setting), mode dominance and arousal-seeking. Even though Table 7.1 shows incompatibility for the telic/paratelic modes, an equivalent table could show the conformist/negativist modes by substituting row and column headings. The degree of incompatibility is a positive though not necessarily additive function of the number of variables present. Mothers feel most compatible with highly reversible children, with whom all "incompatible" variables are absent. Thus, children who reverse are more compatible than children who are mode dominant. Of the mode dominant children, those who are arousal-avoiding are more compatible than those who are arousal-seeking. Similarly, children sharing the same dominant mode as mothers are more compatible than children occupying the opposite dominant mode. The exception is negativist mode-similarity, which confers no advantage. It is important to realise that the tables depict the variables mode dominance and arousal-seeking as properties of the children, but the variable mode opposition represents an interaction between mothers and children. The variable mode opposition is absent in highly reversible mothers ratings

of mode dominant children. Because highly reversible mothers could have been in either the telic or paratelic mode in study 2, or the conformist or negativist mode in study 3, it remains unclear whether mode opposition inhibits these mothers compatibility with mode dominant children.

Table 7.1.

Observed incompatibility between mothers and non-related children due to the hypothetical variables mode opposition, mode dominance and arousal-seeking. The upper half shows how highly reversible and dominant mothers perceive highly reversible children, while the lower half shows how highly reversible and dominant mothers perceive dominant children.

	Reversible Mothers		Mode-Dominant Mothers	
	Telic	Paratelic	Telic	Paratelic
Reversible Children: Telic				
Reversible Children: Paratelic				
Mode-Dominant Children: Telic	Mode-Dominant	Mode-Dominant	Mode-Dominant	Mode-Dominant Mode-Opposition
Mode-Dominant Children: Paratelic	Mode-Dominant Arousal-Seeking	Mode-Dominant Arousal-Seeking	Mode-Dominant Arousal-Seeking Mode-Opposition	Mode-Dominant Arousal-Seeking

Table 7.2 shows the telic/paratelic mothers observed incompatibility with conformist/negativist children. An equivalent table could show conformist/negativist mothers incompatibility with telic/paratelic children by swapping row and column headings. Again, the degree of incompatibility is a positive though not necessarily additive function of the number of variables present. Children who reverse are more

compatible than children who are mode dominant. Of the mode dominant children, those who are arousal-avoiding are more compatible than those who are arousal-seeking. No effect of mode opposition is evident. This supports the results of the principal components analyses in study 1 indicating that the telic/paratelic and conformist/negativist pairs of modes are orthogonal.

Table 7.2.

Observed incompatibility between mothers and non-related children dominated by different pairs of mode. The upper half shows how highly reversible and dominant mothers perceive highly reversible children, while the lower half shows how highly reversible and dominant mothers perceive dominant children.

	Reversible Mothers		Mode-Dominant Mothers	
	Telic	Paratelic	Telic	Paratelic
Conformist Reversible Children				
Negativist Conformist Mode-Dominant Children	Mode-Dominant	Mode-Dominant	Mode-Dominant	Mode-Dominant
Negativist	Mode-Dominant Arousal-Seeking	Mode-Dominant Arousal-Seeking	Mode-Dominant Arousal-Seeking	Mode-Dominant Arousal-Seeking

TSM and NSM scores suggest that mothers did not maintain their dominant modes during the study. TSM scores reflected group differences but did not reach statistical significance. Yet the TDS scores indicated that the groups were different. The results of the TSM show that both groups scored toward the *serious* pole for the "playful-serious" item, the *planning* pole for the "spontaneous-planning" item, and the

high pole for the "arousal" item. One explanation is that the serious nature of the study and formal characteristics of the laboratory created a strong telic situation that inadvertently induced the telic mode in some paratelic mothers. The study may also have created anxiety and increased arousal in telic mothers. Another explanation is that the dependent variable effected the TSM scores as it may have done in study 2. Mothers may feel threatened when acknowledging their incompatibility with children due to the effects of social desirability and guilt. Svebak et al. (1982) have already noted that threat induces the telic mode and increases arousal in some highly reversible subjects. Additionally, Svebak (1984) noted that arousal may not differentiate telic dominant and paratelic dominant subjects under threat. Therefore, perhaps perceived threat induced the telic mode in paratelic mothers, and increased arousal in telic mothers, to a level comparable with paratelic mothers.

NSM scores showed almost no differences between the groups. Moreover, the incompatibility rating task probably did not effect the NSM scores. NDS scores suggested the groups were different. As was noted in chapter 4, mothers total scores on the NDS were positively skewed such that the sample contained no "real" strongly negativist mothers. The top 7% to 8% of mothers chosen to form the negativist group had a mean score of only 6.04 out of a possible score of 14. The negativist group selected for this study and study 3 were only negativist relative to the sample of mothers from which they were drawn. It is possible that the NSM was not sensitive enough to measure the small group differences in this skewed sample. That is, small mean differences in the NDS may restrict the sensitivity of the NSM to changes. Maybe the NSM would detect differences if negativism scores were more widely distributed between the two groups.

Furthermore, the strict enforcement of the experimental procedure may have created a conformist situation that induced the conformist mode in negativist mothers. As negativist mothers were not particularly negativist dominant they may be more typical of the highly reversible group in study 3, and therefore easily reverse into the conformist mode. This would explain why there were almost no differences between the conformist and negativist group scores on the NSM. In summary, similar NSM scores for the groups was probably due both to the skewness of the sample and the formality of the experimental procedure.

No effect due to mode-similarity was evident as the Group x Child interaction was statistically nonsignificant. However, since the TSM and NSM do not suggest that mothers maintained their dominant modes during the study, one cannot necessarily attribute the disappearance of the mode-similarity effect to orthogonality of the modes. Nevertheless, it is unlikely that, for example, the telic child induced the telic mode in conformist mothers, or the negativist child induced the negativist mode in paratelic mothers.

As with studies 2 and 3, the M-IVAS appears reliable and valid for the telic/paratelic and the conformist/negativist modes. The M-IVAS scores for the highly reversible child during the study and after four weeks correlated highly. Similarly, high correlations were evident between the M-IVAS and the PSI.

The data provided here for the telic/paratelic and conformist/negativist pairs of modes suggest that the variables reversibility, mode dominance and arousal orientation influence compatibility despite the rater's mode. Collectively, the data provided by studies 2, 3 and 4 suggest that the variables reversibility, mode dominance and arousal orientation influence compatibility despite the rater's metamotivational style and mode for the somatic pairs of modes.

Chapter 8

Study 5

Compatibility with Telic, Highly Reversible and Paratelic Children: The Reversal Effect

Apter (1982, 1989) and Apter and Smith's (1979) hypothesis that mode dominance inhibits mode dominant mothers compatibility with telic, paratelic and conformist dominant children was clearly supported in studies 2 and 3. There was no evidence that mode dominance further inhibits compatibility with negativist dominant children. However, it remains unclear from these studies whether mode opposition influences highly reversible mothers compatibility with mode dominant children. It is important to re-emphasise that the definition of mode opposition in chapter 3 refers not just to mode dominant people but also to highly reversible people occupying the opposite mode at the same time in any environmental setting. Theoretically, highly reversible people can occupy the opposite mode at the same time; practicably, this might be achieved by using a mode induction technique experimentally to manipulate their modes. For instance, highly reversible mothers experimentally induced into the telic mode should be more compatible with a telic child than with a paratelic child, and vice versa. Since studies 2 and 3 did not control the highly reversible mothers mode, these mothers could have been in either the telic or paratelic modes in study 2, or the conformist or negativist modes in study 3. Presumably, some highly reversible mothers reversed into the telic mode when listening to the vignette of the telic child, the paratelic mode when listening to the vignette of the paratelic child, and so on. According to the literature and the outcomes of studies 2 and 3, experimentally induced mode opposition should inhibit highly reversible mothers' compatibility with

mode dominant children because we like those similar to ourselves and dislike those dissimilar to ourselves (e.g., Winslow, 1937).

The present study tests the influence of experimentally induced mode opposition on highly reversible mothers compatibility with dominant children for the telic/paratelic pair of modes. As mothers may report more compatibility with their children than actually exists, mothers rated non-related children. Two hypotheses were formulated. The first hypothesis was that since evidence suggests that dissimilarity decreases attraction, compatibility should be further inhibited with the strongly telic child when in the paratelic mode, and with the strongly paratelic child when in the telic mode. The second hypothesis was that since further evidence suggests we feel compatible with adaptable individuals, and if arousal-seeking has an additional inhibitory effect on compatibility, it follows that mothers should be most compatible with the highly reversible child, second most compatible with the telic child, and least compatible with the paratelic child.

Method

Mothers

Mothers from the highly reversible group in study 2 formed the highly reversible group in this study. These 14 mothers were unpaid volunteers.

Design

The design constituted a 2 x 3 (induced mode x child's mode) experimental design (see Figure 8.1). Levels of induced mode were telic and paratelic, and levels of child's mode were telic, highly reversible and paratelic. Both independent variables were within subjects. Presentation order of the children and the induced mode order were fully counter-balanced. The dependent variables were the M-IVAS, PSI, and TSM.

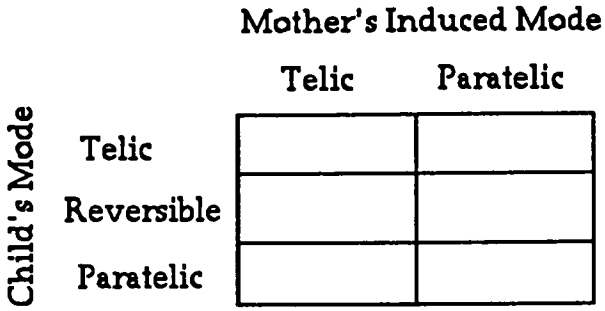

Figure 8.1. The 2 x 3 design for study 5. Highly reversible mothers are induced into one mode to rate the children, and then into the opposite mode to rate the children.

Materials

The M-IVAS, PSI and TSM were identical with those used in study 2.

Children. The experimenter constructed three new vignettes of 10-year-old girls to avoid any possible learning effects from re-using the vignettes in study 2. Although these new children had identical metamotivational styles to those in study 2, they were different both in circumstances and activities. Vignettes were constructed using principles similar to those used to construct vignettes in studies 2 and 3. Miranda was strongly telic, Christine was highly reversible telic/paratelic, and Jezebel was strongly paratelic (see Appendix 6). The readability grade of the descriptions was Kincaid 4.3, Auto 4.2, Flesch 5.8, and Coleman-Liau 4.6. This indicates that the language is age appropriate for a 9- or 10-year-old, and suggests the vignettes are "age valid." Thirty graduate students correctly classified the descriptions into their respective modes yielding an inter-rater reliability coefficient of .99. Presentation time of each vignette was 3 min 16 s (telic child), 2 min 43 s (highly reversible child), and 3 min 4 s (paratelic child). Three 10-year-old girls read the vignettes onto audiocassette tape. These girls were different from the girls who read the vignettes in studies 2 and 3.

Mode Induction Technique. A videotape of a real mother and her 10-year-old daughter interacting in telic and paratelic situations was used in an attempt to induce the telic and paratelic modes in mothers. This technique has been used on the basis that it has been shown to be effective as an inducer of emotional state, affect and mood in other areas (see Frodi, Lamb, Leavitt & Donovan, 1978; Frodi & Lamb, 1980; Keane, Nelson & Herbert, 1987; and Wolfe & LaRose, 1985). A qualified and experienced technical director produced the videotaped scenes in a private studio. The telic scene was set in a quiet lounge room. The scene portrayed a mother helping her daughter with important maths homework, and then mother and daughter working cooperatively on an urgent school project. The paratelic scene was set in a garden. The scene portrayed a mother and daughter laughing as they played with a ball and on a "bounce-ball." Knopfler's (1983) *animato* melody "Going Home" was used as background music to help create a paratelic atmosphere. In the telic situation both mother and daughter were in the telic mode, and in the paratelic situation both mother and daughter were in the paratelic mode. This allowed mothers to identify with whom they liked. Minimal scripting was used. Before videotaping, the experimenter briefed the mother and daughter about the requirements, who then ad libbed and improvised. Videotaped scenes lasted 3 min 56 s (telic) and 2 min 22 s (paratelic). To test the validity of the scenes mothers classified the situations as "serious," "playful," "unsure" or "other."

Apparatus

The audiocassette playback apparatus was identical with that used in studies 2, 3 and 4. A National VHS videocassette recorder (Model NV-8610) played Sony DX cassettes through a Sony 52 cm (20 in) colour monitor.

Procedure

Mothers were tested individually. The experimenter read the following

instructions:

> I've interviewed lots of 10-year-old girls. I've chosen six to be in this experiment. You will notice that these girls are very different from each other. I asked each girl to describe her typical Saturday, and then to read her description onto this cassette tape. I would like you to listen to each tape and tell me what you think of each girl. Some girls were shy about talking into the microphone, and some girls were not very good readers. Please ignore this - I couldn't help it. Rate the child on *what* she says not on how she says it. Finally, there will be a break of five minutes in the middle of the experiment. Any questions?

The subject watched the first scene, then listened to the vignettes while reading from the printed copy. The subject completed the M-IVAS, PSI and TSM after each vignette. After rating all girls, the subject was offered refreshments and given a five minute rest. The experimenter read the following instructions:

> After the next video, I'm going to play you some girls you've already heard before. However, I'm definitely not testing to see how well you remember each girl, or how consistent your second answers are with the first. Don't deliberately try to rate her the same as before, rather, rate her how you feel at that moment. Any questions?

The subject watched the next scene and rated the children as before. Following the last TSM mothers classified the videotaped scenes, and were thanked and debriefed. The study took about 1 hr 5 min to complete.

Results

Figure 8.2 presents the results for the children for each mode. The results do not support the mode opposition hypothesis. ANOVA shows no main effect for mode, $F(1,13) = 0.16$, or mode by child interaction, $F(2,26) = 1.87$. However, ANOVA shows a main effect of child, $F(2,13) = 50.35$, $p<.00001$. The highly reversible child ($M = 13.63$, $SD = 6.79$) is significantly more compatible than the telic child ($M = 51.25$, $SD = 17.11$), Scheffé $F(2,26) = 24.93$, $p<.0001$. The telic child is significantly more compatible than the paratelic child ($M = 65.34$, $SD = 15.46$), Scheffé $F(2,26) = 3.50$, $p<.05$. ANOVA shows no statistically significant differences due to the presentation order of the children or induced mode order. Scores to the item "arousal" from the TSM for the first and second halves of the study were compared: They were not significantly different, Dunnett $t(1,13) = 0.74$, first half ($M = 3.64$, $SD = 0.85$), second half ($M = 3.27$, $SD = 0.98$).

Scores from the TSM show statistically significant differences between the modes for two items. Scores for the item "spontaneous-planning" are: telic $M = 4.38$ ($SD = 0.97$), paratelic $M = 3.60$ ($SD = 1.10$), Dunnett $t(1,13) = 3.29$, $p<.01$. Scores for the item "serious" are: telic $M = 4.64$ ($SD = 0.83$), paratelic $M = 3.64$ ($SD = 1.07$), Dunnett $t(1,13) = 3.0$, $p<.05$. The prediction that the induced modes should differ in "arousal" is not significantly substantiated, Dunnett $t(1,13) = 1.51$: telic $M = 3.24$ ($SD = 1.01$), paratelic $M = 3.62$ ($SD = 1.04$).

To test for construct validity, scores from the "child reinforces parent" and "acceptability of child to parent" subscales of the PSI were averaged and correlated with scores on the M-IVAS. All scales correlate significantly. Correlations in the telic mode are: telic child $r(13) = .73$ (53% of the common variance), highly reversible child $r(13) = .42$ (18% of the common variance), and paratelic child $r(13) = .69$ (47% of the

common variance). Correlations in the paratelic mode are: telic child $r(13) = .71$ (51% of the common variance), highly reversible child $r(13) = .39$ (15% of the common variance), and paratelic child $r(13) = .65$ (43% of the common variance). All mothers correctly classified the videotaped scenes as serious or playful.

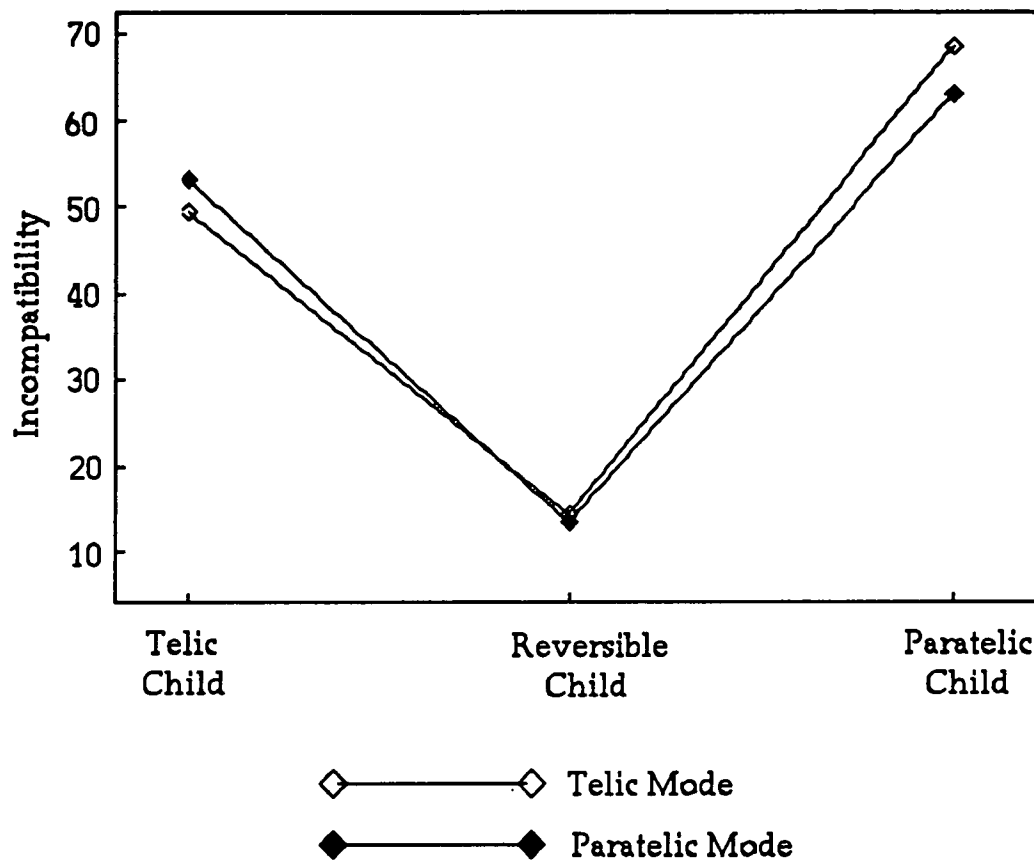

Figure 8.2. Highly reversible mothers compatibility in the telic and paratelic modes with strongly telic, highly reversible and strongly paratelic 10-year-old girls.

Discussion

This chapter documents telic/paratelic highly reversible mothers compatibility in the telic and paratelic modes with strongly telic, highly reversible and strongly paratelic children. The data do not support the mode opposition hypothesis. The employment of a mode-induction technique experimentally to induce mode opposition did not inhibit

mothers' compatibility with the strongly telic or paratelic children. While the inter-mode compatibility scores were not statistically significant, they were in the predicted direction. An important question is whether the mode induction technique worked. Certainly scores from the TSM indicated that mothers rated the children in each mode. Typically, however, the "arousal" item did not differentiate the modes. As it happened, some mothers expressed fatigue during the second half of the study. For example, one mother said "I'm not getting the same 'kick' out of the girls as I did before." However, the "arousal" item on the TSM failed to show that mothers were less aroused during the second half of the study. That the "arousal" item failed to differentiate the modes may be less important. Arousal failed to differentiate the telic and paratelic groups in Svebak's (1984) experiment, and in studies 2 and 4 in the present series. However, the results still yielded significant group differences.

It is possible that dominance rather than mode is the crucial variable determining compatibility with mode opposition. That mode dominant mothers and highly reversible mothers felt incompatible with mode dominant children is clear. But since dominant mothers are ill-adaptable, (i.e., infrequently experience, identify or sympathise with the opposite mode), they felt even more *negatively* reinforced by children in the opposite mode. For these mothers, the opposite mode is a different world, insofar as it structures one's perception of events and stimuli in the environment. This contrasts with highly reversible mothers whose adaptability allows them to experience and enjoy both modes. Thus, highly reversible mothers do not necessarily dislike children in the opposite mode. Alternatively, mode dominant children did not *positively* reinforce highly reversible mothers sharing the same mode. This is because the children were still potentially obstructive to the

mothers' opposite mode. Thus, highly reversible mothers do not necessarily like children sharing the same mode. In summary, mode dominant mothers were negatively reinforced by children occupying the opposite dominant mode and positively reinforced by children sharing the same dominant mode. Highly reversible mothers were neither negatively nor positively reinforced by either children.

The data support the hypothesis that mothers feel most compatible with the highly reversible child, second most compatible with the telic child, and least compatible with the paratelic child. This suggests that mothers see the highly reversible child as more adaptable than the dominant children. This result concurs with the findings of studies 2, 3 and 4, and with the bodies of literature suggesting that adaptability enhances compatibility (Grotevant, et al., 1988; Levinger, 1986), and that we perceive mode dominant people as difficult (e.g., Blackmore & Murgatroyd, 1980). These results also support those findings in studies 2, 3 and 4 suggesting that arousal orientation influences compatibility. The arousal-avoiding child is rated as significantly more compatible than the arousal-seeking child. Specifically, this replicates the finding in study 2 where highly reversible mothers (in either the telic or paratelic modes) felt most compatible with the highly reversible child, second most compatible with the telic child, and least compatible with the paratelic child. This replication is encouraging because while the children in this study had identical metamotivational styles to the children in study 2, they were different both in circumstances and activities. The similar outcome observed in this study and study 2 is probably due to metamotivational style rather than to other aspects of the vignettes, such as reading ability, vocal clarity, or microphone-shyness.

As discussed in studies 3 and 4, why arousal-avoidance is preferable to arousal-seeking is unclear. It could be that the difficulties associated with

arousal-seeking are more obvious than those associated with arousal-avoiding (Walker, et al., 1986). Alternatively, telicism and conformity may be more normal for girls and therefore acceptable.

The data provided here for the telic/paratelic pair of modes offer no evidence that experimentally induced mode opposition further inhibits highly reversible mothers' compatibility with strongly telic, highly reversible, or strongly paratelic children. The data confirm the effects of reversibility, mode dominance and arousal orientation on highly reversible mothers compatibility with these children. Still, the effect of mode opposition and the other variables on highly reversible mothers compatibility with children needs to be verified with other pairs of modes.

Chapter 9

Study 6

Compatibility with Conformist, Highly Reversible and Negativist Children: The Reversal Effect

Studies 2 and 3 clearly support Apter (1982, 1989) and Apter and Smith's (1979) hypothesis that mode dominance inhibits mode dominant mothers compatibility with telic, paratelic and conformist dominant children. Additionally, a body of literature suggests that similarity increases attraction whereas dissimilarity decreases attraction (e.g., Winslow, 1937). Therefore it seems reasonable to hypothesise that experimentally induced mode opposition (i.e., two or more people occupying the opposite mode at the same time) inhibits highly reversible mothers compatibility with mode dominant children. Study 5 employed a potent technique (i.e., videotaped mothers and children) to induce the telic and paratelic modes in highly reversible mothers. However, the data did not support the hypothesis. Yet scores to the TSM suggested that mothers were in different modes when rating the children. One explanation for the null result is that highly reversible mothers do not necessarily dislike or feel negatively reinforced by children in the opposite mode. This is because highly reversible mothers identify or sympathise with that opposite "world." Another explanation is that highly reversible mothers did not necessarily like or feel positively reinforced by children sharing the same mode. This is because the child still has the potential to obstruct the mothers' opposite mode. Either way, it is important to test whether the null result is unique to the telic/paratelic modes, or if it also encompasses the conformist/negativist pair of modes.

Results from study 5 support the results from studies 2 and 4. Mothers felt most with the highly reversible child, second most compatible with the telic child, and least compatible with the paratelic child. The similar outcome observed in studies 2 and 5 is encouraging as the children were different except in metamotivational style.

This final study is similar to study 5 except that it examines highly reversible mothers compatibility with non-related 10-year-old girls for the conformist/negativist pair of modes. Two hypotheses were formulated. First, since evidence suggests that dissimilarity decreases attraction, then compatibility should be further inhibited with the strongly conformist child when in the negativist mode, and with the strongly negativist child when in the conformist mode. Second, since further evidence suggests we feel compatible with adaptable individuals, and if arousal-seeking has an additional inhibitory effect on compatibility, it follows that mothers should be most compatible with the highly reversible child, second most compatible with the conformist child, and least compatible with the negativist child.

Method

Mothers

Mothers from the highly reversible group in study 3 formed the highly reversible group in this study. These 16 mothers were unpaid volunteers.

Design

The design was identical with the design of study 5. The dependent variables were the M-IVAS, PSI, and NSM.

Materials and Apparatus

The M-IVAS, PSI and NSM were identical with those used in study 3. The apparatus was identical with that used in study 5.

Children. The experimenter constructed three new 10-year-old children to avoid any possible learning effects from re-using the children in study 3. Although these new children had identical metamotivational styles to those in study 3, they were different both in circumstances and activities. Vignettes were constructed using principles similar to those used to construct vignettes in studies 2, 3 and 5. Mary was strongly conformist, Kate was highly reversible conformist/negativist, and Kerri was strongly negativist (see Appendix 7). The readability grade of the descriptions was Auto 3.4, Coleman-Liau 3.4, Flesch 5.4, and Kincaid 3.8. This indicates that the language is age appropriate for a 9- or 10 year-old, which suggests that the vignettes are "age valid." Thirty graduate students correctly classified the descriptions into their respective modes yielding an inter-rater reliability coefficient of .99. Presentation time of each vignette was 2 min 56 s (conformist child), 3 min 18 s (highly reversible child), and 2 min 45 s (negativist child). The three 10-year-old girls who read the vignettes onto audiocassette tape were different from those girls who read the vignettes in studies 2, 3 and 5.

Mode Induction Technique. A videotape of a real mother and her 10-year-old daughter interacting in conformist and negativist situations was used in an attempt to induce the conformist and negativist modes in mothers. The potency of videotaped scenes of "difficult" children as an inducer of negative or punitive emotional states in parents is suggested by Frodi and Lamb (1978). The scenes were constructed using the same principles, actors and technical director from study 5. The conformist scene was set in a quiet lounge room. The scene portrays the mother reading and daughter drawing pictures. The mother makes requests from her daughter (e.g., turn the T.V. down; help prepare tea), to which the daughter complies. Similarly, the daughter makes requests from her mother (e.g., can we have chips for tea; please pass the "texta"), to which the mother complies. The negativist scene was set in the same lounge

room. The scene portrays the mother trying to read while the daughter is watching T.V. and listening to loud music. Soon the mother makes demands from her daughter (e.g., turn that noise off; pack away this mess), to which the daughter ignores or refuses. Similarly, the daughter makes demands from her mother (e.g., go and make tea *now*; what can I do I'm bored?), to which the mother ignores or refuses. Videotaped scenes lasted 2 min 2 s (conformist) and 3 min 48 s (negativist). To test the validity of the videotaped scenes mothers classified the situations as "conforming", "rebellious", "unsure" or "other."

Procedure

The procedure and instruction were the same as those used in study 5. Mothers were debriefed and thanked. The study took about 1 hr 5 min to complete.

Results

Figure 9.1 presents the results for the children for each mode. The results do not support the mode opposition hypothesis. ANOVA shows no main effect for mode, $F(1,15) = 1.03$, or mode by child interaction $F(2,30) = 0.74$. However, ANOVA shows a overall main effect of child, $F(2,30) = 63.03$, $p<.00001$. The highly reversible child ($M = 23.91$, $SD = 13.98$) is significantly more compatible than the conformist child ($M = 38.30$, $SD = 16.74$), Scheffé $F(2,30) = 3.80$, $p<.05$. The conformist child is significantly more compatible than the negativist child ($M = 80.31$, $SD = 14.50$), Scheffé $F(2,30) = 32.45$, $p<.0001$. ANOVA shows no statistically significant differences due to the presentation order of the children or induced mode order. Scores to the item "arousal" from the NSM for the first and second halves of the study were compared: They were not significantly different, Dunnett $t(1,15) = 1.09$, first half ($M = 4.25$, $SD = 1.26$) second half ($M = 3.69$, $SD = 0.74$).

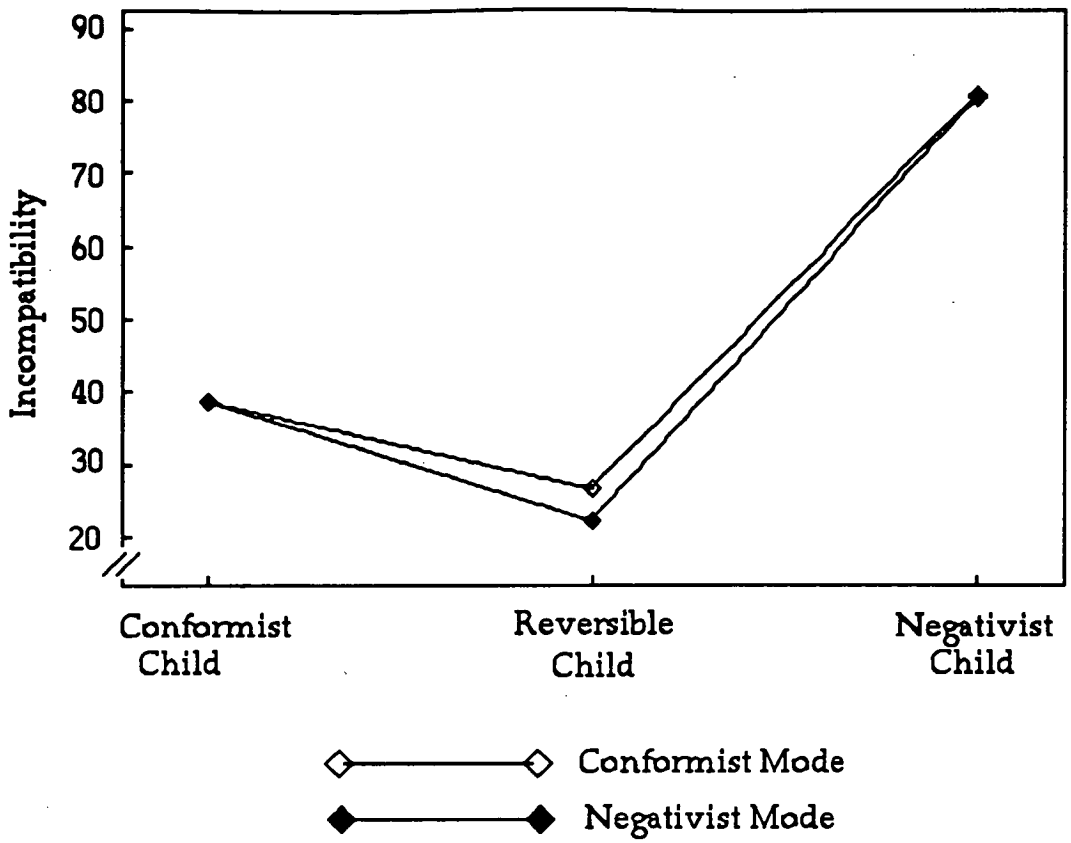

Figure 9.1. Highly reversible mothers compatibility in the conformist and negativist modes with strongly conformist, highly reversible and strongly negativist 10-year-old girls.

Scores from the NSM do not show statistically significant differences between the modes for any item. Scores for the item "rebellious-conforming" are: conformist M = 3.77 (SD = 0.72), negativist M = 3.79 (SD = 0.64), Dunnett $t(1,15)$ = 0.16. Scores for the item "vengeful-accepting" are: conformist M = 4.25 (SD = 0.88), negativist M = 4.21 (SD = 0.69), Dunnett $t(1,15)$ = 0.26. Neither did the groups differ on the exploratory "actual arousal" item: conformist M = 3.94 (SD = 1.03), negativist M = 3.52 (SD = 1.13), Dunnett $t(1,15)$ = 1.98.

To test for construct validity, scores from the "child reinforces parent" and "acceptability of child to parent" subscales of the PSI were averaged

and correlated with scores on the M-IVAS. Most scales correlate significantly. Correlations in the conformist mode are: conformist child $r(15) = .77$ (59% of the common variance), highly reversible child $r(15) = .89$ (78% of the common variance), and negativist child $r(15) = .49$ (24% of the common variance). Correlations in the negativist mode are: conformist child $r(15) = .80$ (64% of the common variance), highly reversible child $r(15) = .72$ (52% of the common variance), and negativist child $r(15) = .20$ (4% of the common variance). All mothers correctly classified the videotaped scenes as conforming or rebellious.

Discussion

This chapter documents conformist/negativist highly reversible mothers compatibility in the conformist and negativist modes with strongly conformist, highly reversible and strongly negativist children. The data do not support the mode opposition hypothesis. The employment of a mode-induction technique experimentally to induce mode opposition did not inhibit mothers compatibility with the strongly conformist or negativist children. An important question is whether the mode induction technique worked. Unfortunately, scores from the NDS do not suggest that mothers rated the children in each mode. Because of this, there are at least three interpretations. First, it seems likely that the mode induction failed and that the NSM is accurately measuring the status quo. Yet the potency of videotaped scenes of children inducing emotional states in parents is well established. Perhaps then, as suggested by Apter (1982), it is difficult to induce or modify the conforming or negativist modes in the laboratory.

A second though less feasible explanation is that the mode induction was successful and the NSM was insensitive to the change in modes. Studies 3 and 4 suggest that the NSM has some difficulty measuring these modes,

which may be attributable to the skewed sample of mothers. If one assumes that mothers did rate the children in different modes, explanations of why mode opposition did not inhibit compatibility are similar to those in the previous study. Perhaps, unlike mode dominant mothers, highly reversible mothers were not positively reinforced by the child who shared the same mode because the child was potentially obstructive to the mothers opposite mode. Alternatively, highly reversible mothers did not feel negatively reinforced by the child who occupied the opposite mode because the mothers can identify or sympathise with that mode. As with study 5, again it may be dominance rather than mode that is the crucial factor determining compatibility through the variable mode opposition. Dominant children may further negatively reinforce dominant mothers, but not highly reversible mothers in an experimentally induced mode. Taken together, the results from studies 5 and 6 suggest that mode opposition does not further inhibit highly reversible mothers compatibility with dominant children for the somatic pairs of modes.

A third explanation is that mothers may have been less aroused in the second half of the study as some mothers expressed fatigue. However, the exploratory "actual arousal" item on the NSM did not show a group difference.

The data support the hypothesis that mothers feel most compatible with the highly reversible child, second most compatible with the conformist child, and least compatible with the negativist child. This suggests that mothers see the highly reversible child as more adaptable than the dominant children. This result concurs with studies 2, 3, 4 and 5, and with the bodies of literature suggesting that adaptability enhances compatibility (Kaye, 1982; Rogoff et al., 1983, both cited by Lamb & Gilbride, 1985; Grotevant, et al., 1988; Levinger, 1986), and that we

perceive dominant people as difficult (e.g., Blackmore & Murgatroyd, 1980). These results also support those findings in studies 2, 3, 4 and 5 suggesting that arousal orientation influences compatibility. The arousal-avoiding child is rated as significantly more compatible than the arousal-seeking child. Specifically, this replicates the finding in study 3 where highly reversible mothers (in either the conformist or negativist modes) felt most compatible with the highly reversible child, second most compatible with the conformist child, and least compatible with the negativist child. As with study 5, this is encouraging in that the children used here and in study 3 were different except in metamotivational style. This suggests that the outcomes observed in this study and study 3 are due to metamotivational style rather than to other aspects of the vignettes.

The data provided here for the conformist/negativist pair of modes offer no evidence that experimentally induced mode opposition further inhibits highly reversible mothers compatibility with strongly conformist, highly reversible, or strongly negativist children. The data confirm the effects of reversibility, mode dominance and arousal orientation on highly reversible mothers compatibility with these children. Still, the effect of mode opposition and the other variables on highly reversible mothers compatibility with children need to be verified with other pairs of modes.

Chapter 10

Conclusions

Reversal theory's original suggestion that many family problems arise out of an incompatibility between family members due to telic/paratelic mode opposition or conformist/negativist mode opposition (Apter, 1982, 1989; Apter & Smith, 1979) is markedly different following this research. Collectively, the data provided by studies 2, 3, 5 and 6 suggest that mode opposition inhibits the compatibility of mode dominant mothers, but not mode-reversals mothers, with strongly telic, paratelic and conformist children. Collectively, the data provided by studies 2, 3, 4, 5 and 6 suggest that the variables reversibility, mode dominance and arousal orientation influence compatibility despite the rater's metamotivational style and mode for the somatic pairs of modes. These findings will now be considered in perspective.

Inevitably one must consider methodological limitations. Clearly there is a need to develop methods and techniques useful for the scientific testing of hypotheses from reversal theory. As expected, the construction of vignettes depicting children is an effective and easy method for testing such hypotheses. It is unlikely that the results from using vignettes are due to the attractiveness of the vignettes. First, a similar pattern of results emerged with a second group of constructed vignettes of children. While this second group of children were similar in metamotivational style to the first group of children, they were different in other respects. Second, the readability grades of the vignettes were all age appropriate for a 9-, 10-, or 11-year-old, which suggests the vignettes were "age valid."

Less clear is the efficacy of the experimental mode induction technique to induce reversals. Maybe the technique worked; maybe it did not. There is no easy way to tell with a null result. While the TSM scores suggest the induction worked in study 5, the NSM scores suggest the induction did not work in study 6. This is consistent with Apter's (1982) suggestion that it is difficult to measure negativism in the laboratory. Given that negativist subjects apparently complied with the experimenter's requests, it is possible that they were not in the negativist mode when being studied. This may indicate that it is difficult to access the conformity/negativism modes with conventional laboratory stimuli of videotaped sequences.

Other methodological limitations must be noted. Given that the experimenter constructed the vignettes of children and tested mothers in the laboratory, there is no evidence that the results are ecologically valid. To establish ecological validity, future studies might intercorrelate mothers TDS scores with their *own* children's scores to the Nijmegan Telic Dominance Scale for primary school pupils (Boekaerts, Hendriksen, & Michels, 1988) and some measure of compatibility. But there are numerous other issues that need exploring. For example, it would be appropriate for new work to examine the age and sex of the child, or the relationship of the child to the mother. Also, future research should address the issue of patterns of compatibility found between mothers and sons, fathers and sons, and fathers and daughters. Nevertheless, these limitations do not detract from the significance of the present analysis.

These methodological limitations raise questions about how useful the results are to counsellors and therapists. Obviously the results will be very useful to therapists dealing with family conflicts, especially since studies suggest that extreme incompatibility between parents and children may lead to child maltreatment (Lamb & Gilbride, 1985). But

besides family therapy, the results will be useful in areas where reversal theory has not yet or has just started to be applied, such as in the areas of education, marriage guidance, in detention centres and prisons, personnel selection, and the police and military forces. In fact, given that conflict is inevitable in any long-term relationship (Schwartz & Schwartz, 1980), the results will be useful in almost every instance involving close or long-term interpersonal interaction, and where there are problems of adjustment.

Murgatroyd (1988; p.60) suggests that the task of therapy from the reversal theory perspective is "...to *understand* the structural aspects of the phenomenal world of the person in need and to *affect* these structures so as to promote well-being" (my italics). Based on the present findings, therapists must therefore understand that the presenting problem "reversal inhibition" is a serious problem. They must understand that some types of mode dominance (i.e., paratelic or negativist dominance) are worse than other types (i.e., telic or conformist dominance), and that dominant mode opposition between two people also inhibits compatibility. Above all, therapists must appreciate just how important it is to reverse between modes to be liked by other people.

To affect these structures so as to promote well-being, therapy should be eclectic, drawing on appropriate therapeutic techniques from a broad repertoire. Questions the eclectic therapist needs to ask when selecting a type of treatment are listed in Murgatroyd and Apter (1984). Further, given that at present no evidence links mode dominance to biological or genetic predispositions or to maturational processes, therapy should be aimed at that which perpetuates the mode dominance.

Whereas family and marital problems might require conjoint therapy (Patterson, 1974), problems with students, prisoners, parolees, and

delinquents might require individual therapy. A good start to therapy is if the individuals acknowledge that there is conflict. The variables reversibility, mode dominance and arousal orientation may be used, particularly by clinical psychologists, as a guide for *identifying* cases of extreme incompatibility. For instance, strongly telic people seem to be extremely incompatible with strongly negativist people (study 4). It may also be possible to teach parents, teachers and others to recognise extreme cases. Following this it would be crucial to *explain* to these people to give them an understanding of the dynamics of the incompatibilities involved. The main message here would be to explain that people like highly reversible people, despite their own metamotivational style and somatic mode. Parents, teachers and others should then be *reassured* that the situation is not unique or bizzare.

Based on the present results, special effort is needed to facilitate reversals in mode dominant people, particularly those who are arousal-seeking, and with those who frequently experience dominant mode opposition. One could begin *modifying* metamotivational incompatibilities with individuals or groups by using insight-oriented therapy. Here the aim would be to give mode dominant individuals an insight into their "one-sided" or "oppositional" character. The therapist might have Anne (the case cited by Blackmore & Murgatroyd, 1980) participate in psychodrama. Psychodramatic techniques include "mirroring", "role reversal", and "magic shop" (buying new personal qualities by trading in old unwanted ones). These techniques would not only dramatically demonstrate how to experience different modes, but could also encourage Anne to express her feelings about certain situations (Moreno & Kipper, 1968). The appeal of video too, can be used to captivate and charm children as they objectively view their own behaviour and see how they might adopt new behaviour. Alternatively, adults themselves could be taught to be

sensitive to the need to reverse when appropriate. Sensitivity training groups (T-groups), being primarily educational, promoting personal growth and better understanding, could help adults examine their own behaviour and experiment with new ways of behaving (Aronson, 1972). For example, military officers should realise that metamotivational flexibility may improve the quality of their leadership. Such improvement will facilitate soldiers identification with the combat unit, increase their tolerance to stress, and ultimately increase the moral or *esprit de corps* of the whole troop (Borus, 1970).

Following insight-oriented therapy, one could use behaviour therapy to decrease the tendency to operate in a limited number of modes, and to increase the expression of and reversals between numerous modes when appropriate. According to the present findings, special attention may be needed in teaching those who are arousal-seeking to reverse more freely. Initially, desensitization (Lazarus, 1961) could help reduce unresolved fear about experiencing a different mode or for being versatile. Similarly, stress reduction may help foster versatility by lowering anxiety and or arousal. For instance, police constables "on the beat" should know that it is sometimes better to laugh at the minor antics of a group of adolescents rather than to remain in the telic mode. Or, lecturers should realise that most students can remain in the telic mode for only a limited period of time. Thought-stopping might diminish rigid or "fixed" thinking. Social skills training could teach negativist dominant individuals new social skills, such as sensitivity and empathy, that are likely to bring about positive reinforcement from others. One social skill, "assertiveness" (Bloomfield, 1973), could be used to teach conformist dominant people the appropriate expression of both positive and negative feelings. Conformist dominant people must learn to trust themselves to express criticism without fearing that they are hurting other peoples feelings. Undoubtedly, all people, regardless of the type of

conflict, would benefit from communication skills training where the intent versus the impact of a remark are distinguished. Finally, Murgatroyd (1987) suggests and a study by Svebak and Apter (1987) indicates that humour might be particularly useful in effecting a reversal to the paratelic mode.

The question arises as to the implications of the present research. Apart from providing construct validity for the TDS and NDS and generating some Australian data for the scales, the present research has a considerable impact on reversal theory. Overall, these findings suggest that reversal theory has considerably more to say about incompatibility than just dominant mode opposition. The research does not change but extends reversal theory by suggesting that mode dominance, reversibility and arousal-orientation are stronger predictors of incompatibility than dominant mode opposition. It is true that mothers sharing the same dominant mode as children are more compatible than mothers occupying the opposite dominant mode. The exception is negativist mode-similarity, which confers no advantage. However, of the mode dominant children, those who are arousal-avoiding are more compatible than those who are arousal-seeking. Furthermore, mothers feel most compatible with highly reversible children despite their own metamotivational style and mode. It is obvious that reversal theoreticians and experimenters now face a different situation when considering compatibility.

This research empirically verifies the validity of various reversal theory constructs. It supports the construct "mode dominance", and Murgatroyd and Apter's (1984) classification of mode dominance as a presenting problem. This research also supports what Apter (1989), Murgatroyd and Apter (1984) and Van der Molen (1988) might call "reversibility," which is the suggestion that "The psychologically healthy person is one who is...

inherently inconsistent." (Murgatroyd & Apter, 1984; 395). The concepts of "reversibility" and "arousal-orientation" arising from this research are particularly important. The concepts are not just important to the counsellors, therapists, clinical psychologists, organisational and social psychologists, educators, parents, corrective officers and local authorities, understanding of the dynamics of the incompatibilities involved. These concepts are also useful in the wider arena of reversal theory. For instance, that arousal-seekers are disliked concurs with our dislike of soccer hooligans, who are hypothesised as being highly paratelic and negativist (Kerr, 1988).

Another implication of this research concerns whether mode opposition, reversibility, mode dominance, and arousal-orientation influence compatibility in the transactional pairs of modes. Given that theoretically one may reverse between, or be dominated by the transactional pairs of modes, it is possible that reversibility or mode dominance influences compatibility with these modes too. Specifically, it would be interesting to assess whether mothers feel compatible with autocentric/allocentric or mastery/sympathy reversible children, and incompatible with strongly autocentric, allocentric, mastery or sympathy children. While mode opposition may occur with the autocentric, mastery or sympathy modes, there may be no such effect with the allocentric (i.e., other-centered) mode. Presumably the variable arousal orientation would have no influence with the transactional pair of modes since these modes have no arousal orientation component. At the time of this research no scales appear to be available to measure these pairs of modes. Future researchers need to develop these scales as research tools and possibly for eventual clinical use.

It is important to realise that many of the outcomes of this research are only part of the picture. The patterns of compatibility in the somatic

modes probably interact with the transactional modes. That is, compatibility could change with the synthesis of two or more modes. Future research must examine this interaction. For instance, a telic mother may feel more compatible with a paratelic child when she is also in the allocentric or mastery modes. Even the negativist mode may have some redeeming features depending on the mode one occupies. These issues need to be studied.

Smith and Apter's (1975) theory of psychological reversals is a powerful new theory with considerable heuristic value. The theory offers a new perspective on many psychological phenomena generating many testable research predictions (see Apter, 1989, for a review). Inasmuch as the theory is being clarified and developed, many of its predictions are constantly being tested and extended. One important theoretical area concerns the various contextual and phenomenological aspects of the problematic mother-child dyad. Apter (1989, 1982) and Apter and Smith (1979) predict that many problems of the family arise out of an incompatibility between family members in terms of mode opposition. The research documented in this thesis supports this prediction for the telic, paratelic and conformist modes. Furthermore, the research adds a small but very important aspect to reversal theory. Namely, it is important to be adaptable, easy, flexible and versatile if you want to be liked.

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Appendix 1

Vignettes for Study Two

Tina

Here is Tina, who is 10 years old. All her days are like each other and generally sound the same. She likes them this way because she likes routines. Tina is almost always a *serious* child, she prefers to live in a quiet world, and she spends much time planning for her future. Here is a typical Saturday in her own words.

"I got up at 8.00 o'clock went to the toilet, had a shower and did my hair. For breakfast I always have Wheaties 'cos they're good for you. I got ready to go to the library but my brother watched cartoons on T.V. I think cartoons are really silly 'cos they don't teach you anything. I took my brother to the library, but he was being stupid, which was not fair 'cos I got told off too. I got two books about animals 'cos I want to be a vet when I grow up. After the library at home I couldn't read my books very well because mum and dad kept talking and laughing so I had to go and read in my room. Then I cleaned my room for pocket money - I always put my pocket money in the bank. Umm... then I made my brother turn the T.V. off and go out of the room 'cos I wanted to practice the piano. In the afternoon my friend came around but I wanted to read my books so she went off to play with the other girls. Mum says I should play more 'cos she wanted me to play netball 'cos they didn't have enough players, but I don't want to play 'cos I hate it anyway - I haven't practiced for it! Mum made me go and try it out but I told her I wasn't a child anymore. Also, later, mum didn't help me with sums for homework which is not fair 'cos I never pass the maths tests. I keep telling mum to go back to night school to do maths and stuff 'cos it really helps with jobs and other things, but she won't listen. After tea mum made me go play with other kids again but I hate them 'cos they're stupid. Then it started to get dark - I came inside. After that I was tired so I brushed my teeth and went to

bed to read my books again, but first I asked mum to turn the T.V. down quieter.

As you can hear, Tina is almost always serious. She likes to live in a quiet world and spends a lot of time planning for the future. Sometimes she even wants her mum to think about the future too, like going back to night school. Also, she never seems to be exciting, playful or spontaneous. So even though Tina is sensible and level-headed, she doesn't really seem to know when to have fun.

Naomi

Here is Naomi, who is 10 years old. Some of her days are much the same but others are quite different. She likes them this way because she likes routine and variety. Sometimes Naomi is serious and quiet, but other times she's spontaneous and excitable. Here is a typical Saturday in her own words.

"I got up at 8.15... watched T.V. For breakfast I had rice bubbles as they're yummy, and I had a banana too. I lazed about stroking Rum Tum for a bit then played totem tennis. We were going to town for to get me a stack-hat 'cos a man came to school and told us about riding bikes and stack-hats. I got a yellow one - it's unreal. In town we saw a really gross accident but I didn't want us to stay and help. Also we went to the boring market for veggies but I was allowed to go over and watch these unreal clowns playing with plates and cups. After town we played "Robin Hood" and then I watched T.V. with Susie. Then Susie and me did some maths for homework but Rum Tum kept jumping on the pencils which was so funny and then he was climbing up the curtains to the window 'till I had to tell mum. Then we played non-stop cricket but the boys started arguing so I went back home. 'Stopped at the shops on the way home and got mum the washing powder she wanted. At home I read my book and asked mum if we could we go rollerskating but she was tired and she'd take us rollerskating tomorrow - unreal hey? Mum told me to tidy my room. Then I finished off my homework. After tea I tried out my stack-hat on my bike but got five "mossie" bites so I went in to watch T.V. again. Later, mum said to go to bed 'cos I looked tired but I wasn't really so she let me stay up a little bit longer.

As you can hear, Naomi is sometimes serious and quiet, but other times

she is spontaneous and excitable. Sometimes she plans for the future, and sometimes she thinks only about the present. Not only is Naomi sensible, level-headed and knows when "enough is enough", she is also able to be sparkling, and vibrant, and she knows how to have fun.

Patricia

Here is Patricia, who is 10 years old. All Patricia's days are very different and she likes them this way because she thrives on variety. Patricia is almost always excitable, spontaneous, and impulsive. She wants the whole world to be exciting and she lives only for the present moment. Here is a typical Saturday in her own words.

"Err... got up, played with the game *Headache,* watched T.V. and then went outside and did some unreal "180's" on my skateboard. Err... then I had to pack away the games and get dressed 'cos I had to get my school sandals fixed in town but couldn't find them so I couldn't and mum grumbled at me and said I should be a bit more responsible; - it's not fair, I hate her. Then I went outside and played with mum's lipstick and err... I accidentally broke the top off it, but I didn't mean too. Umm... for breakfast I had *Coco Pops* - they're yummy. And at lunch I had a drink of *Coke* and a strange new Pie, err... I think it was called "Spinater", but I spilt the milk on the floor 'cos my computer game pushed it off the table, and the milk was all dirty and hairy but Bimbo our Foxy licked it up. After me and Bimbo played with rolling some eggs on the floor and he was chasing them, I then gave him a bath but he didn't like it very much - he was so cute when he was all wet jumping on mum and dad's bed. Err... we're going to Aunty's for holidays again. We always go there, it's boring. Umm... err... then I played tennis against the wall in the lounge. Begged mum to take us to the waterslide but instead she told me to sit down and be quiet for a while and read a book. "No way Hosay" - I hate reading boring old books? I hate her, I wish she was dead, anyway I'm gonna' tell dad 'bout her. Arrmm... I went down to the quarry even though I'm not 'sposed too, - I did an unreal "mono" on my bike without falling off, yeah I did, really! Errmm after tea Bimbo was chasing

me when I was swinging around the Hill's hoist but he couldn't catch me very well. Oh yeah, in the afternoon I had to go to the shop for dog food 'cos I forgot before. 'Spent my pocket money on lollies. Mmmm... when it got dark I went inside and played on my skateboard in the kitchen.

As you can hear, Patricia is excitable. She likes to live in a spontaneous world with lots of change, and she thinks only about the present moment. Sometimes, she even wants her mum to be more exciting too, like going to the Waterslide. Even though Patricia is sparkling and vibrant, she doesn't really seem to know when "enough is enough", or when it's best to be serious and think about tomorrow.

Appendix 2

Vignette Classifications for Study Two

Child Rating Exercise I

I asked three 10-year-old children to describe their typical Saturday. Attached are these descriptions. On the basis of these descriptions can you decide which child has which personality type (below) by writing that child's name next to the personality type. Try to make your decision on the child's *whole* description, rather than focussing on one or two statements. If you are unsure or feel that any of the children have a personality type different to those that are listed, please choose "other."

Personality 1: *Mainly serious, unlikely to be playful.*
Child's name: _____

Personality 2: *Mainly playful, unlikely to be serious.*
Child's name: _____

Personality 3: *Sometimes serious and sometimes playful.*
Child's name: _____

Personality 4: *Other.*
Child's name: _____

Feel free to note any comments you might have about these children. Please return this sheet to Pauline O'Connor, Dept Psychology, University of Tasmania. Thank you.

Appendix 3

Initial 10 Visual Analogue Scales To Measure Compatibility

In this exercise your task is to rank the "goodness" of the following statements by numbering them from 1 (most likely to measure compatibility), 2 (second most likely to measure compatibility), 3 (third most likely to measure compatibility), an so on to 10 (least most likely to measure compatibility).

Here is what I mean by "compatible."

COMPAT'IBLE: [F or L] Able to agree, live, work or 'get along' together in harmony; capable of mutual tolerance; same or similar in character.

"Incompatible", of course, is the opposite to compatible. Feel free to note any comments. Thank you very much for your help.

This child's personality is ...

Similar to mine ├──────────────────────────────────────┤ Different from mine

This child's character and my character would most probably...

Clash ├──────────────────────────────────────┤ Harmonise

This child and I would...

Have difficulty getting along ——— Get along well

I would feel ... living with this kind of child

Compatible ——— Incompatible

Living with this kind of child would most often be...

Pleasant ——— Unpleasant

After a while I would find this child...

Pleasant ——— Irritating

This kind of child tends to...

Argue with me ——— Agree with me

A child like this makes me feel...

Tense ⊢——————————————————————⊣ Calm

If I had to spend a whole day with this child I would

Hate it ⊢——————————————————————⊣ Enjoy it

I would find it difficult to tolerate this child's behaviour

Agree ⊢——————————————————————⊣ Disagree

Appendix 4

The Two Subscales From Abidin's (1986) Parenting Stress Index

Subscale: *Child reinforces parent*

1	2	3	4	5
Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree

(Circle a number)

1. (My) This child rarely does things that would make me feel good. 1 2 3 4 5

2. Most times I'd feel that (my) this child likes me and wants to be close to me. 1 2 3 4 5

3. Sometimes I'd feel that (my) this child wouldn't like me and wouldn't want to be close to me. 1 2 3 4 5

4. (My) This child would smile at me less than I'd expect. 1 2 3 4 5

5. When I (do) did things for (my) this child I get the feeling that my efforts would not be appreciated very much. 1 2 3 4 5

6. Which statement best describes (your) this child? (Circle a number)

   1. always likes to play with me,
   2. sometimes likes to play with me,
   3. usually wouldn't like to play with me,
   4. almost never likes to play with me.

Subscale: *Acceptability of child to parent*

7. (My) This child seems a little different than I'd expect and it would bother me at times. 1 2 3 4 5

8. In some areas (my) this child seems to have forgotten past learnings and has gone back to doing things characteristic of younger children. 1 2 3 4 5

9. (My) This child doesn't seem to learn as quickly as most children. 1 2 3 4 5

10. (My) This child doesn't seem to smile as much as most children. 1 2 3 4 5

11. (My) This child does a few things which bother me a great deal. 1 2 3 4 5

12. (My) This child is not able to do as much as I'd expect. 1 2 3 4 5

13. (My) This child does not like to be cuddled or touched very much. 1 2 3 4 5

Appendix 5

Vignettes for Study Three

Carol

Here is Carol, who is 10 years old. All Carol's days generally sound the same; they are like each other. She wants them this way because she likes routines. Carol is very agreeable, does what almost anybody asks her to, and prefers to live in a quiet world. Here is a typical Saturday in her own words.

"I got up when mum called me for breakfast, I always have what mum makes me and sometimes I even make the toast. I watched cartoons on T.V. but my older brother came and changed it to the *MTV* instead so I had to let him. In the morning we went horse riding and I did have a lovely Bay but a boy wanted it too so I let him have it instead, hmm... I didn't want to fight about it. And then some girls were saying rude things about me but I just ignored them. I told mum and she got upset and said I should learn to give it back to them - but I don't know if I should. Also, my brother was told off by the lady for not keeping in line so I made him shush-up and stay in line. I hate it being in trouble. At home, mum wanted me to play netball tomorrow 'cos they don't have enough players so I said okay but I didn't really want to. Err... I always like to help out. Then I went out with mum in the car to the chemist in town but I told her off for not putting money in the parking meter. We could get a ticket you know, even for one minute, but mum didn't listen. Luckily we didn't get one though. Then I went 'round to Susie's to play 'cos she asked me to at school but when I got there she didn't want to so I had to walk all the way home again. I know she was being mean but what could I do? Mum was really aggro with me this time and told me to go to my room. I asked her could I watch T.V. but she said "no." Umm... later my brother told me to get the frisbee back that I loaned Linda down the road. When I got to Linda's she said she lost it. After tea

mum didn't help me with the sums for homework and I'm worried 'cos I'll get into trouble at school. Also, I asked mum if I could join the Nature Club at school - but I'm not allowed to. After trying to do homework I was watching an unreal movie on T.V. but mum told me to go to bed so I did.

As you can hear, Carol is almost always a conforming child. She wants a quiet life and spends a lot of time avoiding arguments or pleasing other people. Also, she never seems to be spirited, assertive, or even just a little bit naughty. Even though Carol is altruistic, saintly, and does what's "right", she doesn't seem to be very independent or know when to "take a chance."

Beth

Here is Beth, who is 10 years old. Beth likes both variety and routine in her life. Some of her days are much the same, but others are quite different. Whilst Beth is able to be agreeable at times, she is also able to be strong-willed if she wants. Here is a typical Saturday in her own words.

I got up when mum called me; for breakfast I had *Wheaties*. 'Watched cartoons and played with Sooty, who scratched my leg, but she's only a little kitten and she didn't mean too. Mum asked me to dry the breakfast dishes so I did. At the Supermarket some kids were teasing a dog in a car in the carpark so me and mum told them off for being cruel and they ran away. When we were getting the groceries a man was rude and pushed in front of us at the deli' - but we think it was 'cos his baby was screaming and he looked so upset, so we didn't say anything. At home, Debbie next door wanted me to play Totem-Tennis with her but I don't like it much so we went to the pool instead, which was much better. At swimming a girl pushed in before me on the Waterslide so I told her to get back 'cos I was there before her. Umm... the life guard asked us not to run around, I said "sorry" and we went down the other end - I felt so "uncool." Also, in the change rooms a girl's towel was stolen so I let her borrow mine to dry herself when she asked me. Mum told me to 'phone for her to drive me home but I didn't 'cos I wanted to walk home, but I don't do that very often 'cos she gets really wild. At home mum said Mrs Carey 'phoned to say that I didn't make the netball team - oh well at least I tried, maybe next year. Then Sooty and me played with my brother's radio-controlled car without asking him, but I've only done that once before and anyway I wouldn't break it. Also I had to tidy my room but I didn't 'till after *Disneyland* finished. At eight o'clock mum said to go to

bed 'cos I was tired but I begged to see the end of *MacGyver* so she let me. Later my brother came and told me off for touching his car so I said "sorry."

As you can hear, Beth is sometimes able to conform and other times able to assert. Sometimes she likes a bit of excitement, and sometimes she likes a bit of peace and quiet. So Beth is able to be strong-willed and spirited, but also she seems to know when it's best to avoid an argument or "play it safe."

Nicole

Here is Nicole, who is 10 years old. Nicole likes trouble. Nicole either goes out of her way to make trouble, or when she's asked to do something she doesn't want, she won't do it which causes trouble. Her days are usually very different because she likes excitement and lots of variety. Here is a typical Saturday in her own words.

"Yeah well... had to get up at 9.30 'cos my mum kept yelling at me to get up for ages. 'Watched T.V. and made my little brother get away from the heater 'cos I wanted it instead. Then I tried to use the video, even though I'm not supposed to. My brother said he'd tell mum but he didn't dare 'cos he knew I'd get him back. Mum grumbled at me too: "get dressed and clean up the Lego"; - it's not fair, it's his mess too! Umm... chased the stupid dog away from next door 'cos it was in our garden. Umm... went to Kmart with mum but I didn't get lollies so I said a swear word and wouldn't go with her and then she got me some *Smarties*. Err... oh yeah we were going to uncle Bryan and Shelly's place but forgot my friend was coming 'round so I told her to go away but mum made me stay and play with her. It's not fair I hate her so I slammed the door but mum still did. Anyway I didn't play with her very much 'cos she's such a goody-goody so mum can "suck eggs." Up the park we played non-stop cricket but they say I never play by the rules - I didn't get "out" at all - stupid game! Mum told me I'm a "bloody-minded" ... 'cos I wanted her to tell off the kids and let me play cricket but she didn't. It's not fair, it wasn't my fault! Anyway, that dickhead boy started the fight - he always does!, so then I told mum to "F-off" 'cos that makes her go bananas. Yeah well for tea there was yucky salad again but I hate it, mum knows I hate it, and I wouldn't eat it so mum had to make chips instead. Caught my nerdy brother riding my bike again in the

garden so I made him get off it and then I rode his skateboard just to make him really mad - he's such a cry baby and tell-tale. Nothing else I 'spose. Oh yeah I had to go to bed at 9.30 but I secretly played Donkey Kong in bed - ha ha!

As you can hear, Nicole is argumentative. She likes to have things her own way, and hardly ever does what is asked of her. Even though Nicole is strong-willed and spirited, she doesn't know when it's best to "play it safe" or conform for her own good.

Appendix 6

Vignettes for Study Five

Miranda

Here is Miranda, who is 10 years old. Miranda is very much like Tina, in that all her days are like each other and generally sound the same. She likes them this way because she likes routines. Miranda is almost always a *serious* child, she prefers to live in a quiet world, and spends much time planning for her future. Here is a typical Saturday in her own words.

I told my sister Shelly to get up because it was a quarter to nine and she was still in bed. Had breakfast and I always brush my teeth 'cos I don't want fillings. I tried to brush Timmy my baby brother's teeth too, but he wouldn't let me. Dad took Shelly and me to Calisthenics and we did some exercises for keeping fit. It was good but I hate it when the instructor picks me to go to the front and show the exercises. I'm worried I'll do it wrong. Shelly always giggles with another girl and they make too much noise and get told off - wish they wouldn't. Everybody says I'm such a "goody-goody" - but I don't care. On the way home dad nearly forgot the bread rolls, as usual, but I reminded him all right. At home I did some schoolwork. For lunch I made Salmon rolls but wasn't allowed to use the steam machine to make Capuccino. It's not fair - I am old enough! In the afternoon I planned to tidy up my room but the vacuum cleaner woke up Timmy and he started screaming, so I couldn't. Did more schoolwork. Dad took Shelly to the playpark but I didn't want to go 'cos it's boring there. Mum kept on at me to go with them but no way! I'd much rather go to the Museum or something to learn things, but Shelly never wants to. She's boring. Then I wrote my class talk for next week. I wanted to talk about Logo but mum wouldn't help me and told me to pick something easier to do. She thinks I'm still a baby. I wish mum was a school-teacher or something. When dad came back I asked

him to take me to Uncle Peter's 'cos he has an Encyclopaedia but he wouldn't. My friend Michelle came around and asked me to go out on our bikes for a ride to the playpark but I made her go to Uncle Peter's instead to get the book. At home mum told me off for crossing the Highway alone and annoying uncle Peter. It's not fair, I've got important homework to do! Then Michelle went away 'cos I wanted to write my school talk. For tea we had Pizza and I tried to teach Shelly to how to 'phone the pizza shop to order it but she wasn't very good at it 'cos she didn't try very hard. After tea I wanted to bath Timmy but wasn't allowed, so I tidied my room and went to bed to read the Encyclopaedia.

As you can hear, Miranda is almost always serious. She likes to live in a quiet world and spends a lot of time planning for the future. Also, she never seems to be exciting, playful or spontaneous. So even though Miranda is sensible and level-headed, she doesn't really seem to know when to have fun.

Christine

Here is Christine, who is 10 years old. Christine is very much like Naomi in that she has a good mixture of being playful and seriousness, of spontaneity and routine, and of excitement and quietness. Here is a typical Saturday in her own words.

I stayed in bed for ages 'cos it was nice and warm and listened to my tapes. My sister Jacqui and I played Monopoly on my bed. Then we had to go out for breakfast. I wore my new jeans. For breakfast I had an egg, toast and marmalade. MTV was on T.V. and I did some unreal dancing, especially the "Bustop", which is my favourite. Did the breakfast dishes for mum. Also, it was my turn to clean the swimming pool, and that takes ages. Then I got my pocket money and went to the shops and bought *Pascals* and *Sherbert Bombs*. I went back home and did a painting of a tree in our back garden as a Christmas present for mum. My best friend Bridgette, her dad and her brother came and took me bowling in Moonah, which was great fun. I wasn't as good as Bridgette but her dad said I was okay though. Also, we had a bucket of chips and a drink each, which was yum. Umm... at home I helped dad cut the grass by holding back the bushes. Then Bridgette came again and we played Truth, Dare or Torture with some kids next door, then we went on their excellent trampoline. Also, Bridgette and I talked about school and did some homework together. At home, we had spaghetti for tea, which was yum, but I hate the smelly cheese. After tea, Jacqui and I did the dishes for mum and dad because they were going out. Later, we watched T.V., played Hopscotch, and then I started making my Christmas cards.

As you can hear, Christine is sometimes serious and quiet, but other times she is spontaneous and excitable. Sometimes she plans for the

future, and sometimes she thinks only about the present. Not only is Christine sensible, level-headed and knows when "enough is enough", she is also able to be sparkling, and vibrant, and she knows how to have fun.

Jezebel

Here is Jezebel, who is 10 years old. Jezebel is very much like Patricia in that all her days are very different because she thrives on variety. Jezebel is almost always excitable, spontaneous, and impulsive. She wants the whole world to be exciting and she lives only for the present moment. Here is a typical Saturday in her own words.

Dad told me to get back into bed 'till at least 7 o'clock - boring. Played tennis with Michael my brother then got out the tent to make a cubby house in the veggie patch. Mum told me to get back in and finish my breakfast. Did BMX races in the park with some kids but didn't finish my race 'cos I wanted to go home for my pocket money. Bought lollies. Dressed up Gingy our cat in Michael's T-shirt but she didn't like it very much and did a poo and ran away. I climbed over the neighbour's fence into their garden to get her but she was gone! Then I was banging on my drums in the Laundry 'cos I'm in a rock group but I had to take them all out again 'cos mum wanted to do the washing instead. Slid down the bannister a few times but accidentally knocked the picture down so I went outside. Oh yeah, I forgot, for breakfast I had *Fruit Loops* but mum got mad 'cos I opened a new packet to get the toy animal instead of eating the other packet first. For tea we had veggies and meat - wish we could have something new like Sushi or something. Anyway and I raced Michael but he won, 'cos he had the smallest. In the afternoon I went to the Blowhole, even though I'm not supposed to, but stacks of other kids go there. Bet there are Sharks in there. I went there but I didn't see any. Then my friend Jenny did some drawings and I blew bubbles with the detergent. It was so funny 'cos they kept bursting on the carpet and sofa. Later mum told me to pack the tent away and do my schoolwork. Schoolwork - she's gotta be joking! Sicko! Dad was asleep in the lounge

so I woke him up to play piggy back but he told me to "get out." I wasn't even allowed to make a tent with the curtain. It's not fair there's nothing to do. It's so boring around here. At night we watched *Superman*, it was so great, I like it best when he bashes up the robbers - yeah bash. Mum told me to stop jumping on her. Then I painted my nails and did somersaults on mum and dad's bed but then I felt sick.

As you can hear, Jezebel is excitable. She likes to live in a spontaneous world with lots of change, and she thinks only about the present moment. Even though she is sparkling and vibrant, she doesn't really seem to know when "enough is enough", or when it's best to be serious and think about tomorrow.

Appendix 7

Vignettes for Study Six

Mary

Here is Mary, who is 10 years old. Mary is very much like Carol, in that she is very agreeable, does what almost anybody asks her to, and prefers to live in a quiet world. Here is a typical Saturday in her own words.

I got up at 8 o'clock, made my bed, brushed my hair, had breakfast, and cleaned my teeth - mum always tells me to. Dad asked me to wake up Bella my older sister. I didn't really want to but I did anyway. Bella and I had to go to the library for mum to get a book on reserve, but she wouldn't get ready because she was watching telly and was going too slow, mum yelled at her. I was ready though. On the way to town she wanted to sit in the back of the bus so I had to sit with her. Hate it down there 'cos it's too rough. At the library I told Bella that the rule is to be quiet 'cos there are people reading and they don't want to be disturbed. She said I was a nerd, but I'm not though. We got the book for Mum on reserve and I chose a book about sewing. Bella kept talking with these boys so I had to wait ages for her. In town a man on the street corner was selling badges for charity, I think. I bought one for $1 - which is 1/5th of my pocket money - I didn't really want one. Bella stayed ages in *Sussan's* which made us nearly miss the bus. For lunch I had a Pastie 'cos I always like that on Saturdays. Afterwards, my friend Jenny came around and wanted me to go out on our bikes so I did and we went a long way. I wanted to go home 'cos I felt scared but she wouldn't let me then I started crying so she went away and left me alone. Luckily I knew the way home. At home I had to sweep out the yard. For tea we went to *Macdonalds* and I had a junior burger and chips and a box of cookies. Bella had a chocolate sundae too. At home I read my sewing book but when I got to my room Bella had taken some of my cookies but I didn't say anything. Then mum told me to go to bed but I couldn't sleep for

ages 'cos Bella's cassette player was too loud.

As you can hear, Mary is almost always a conforming child. She wants a quiet life and spends a lot of time avoiding arguments or pleasing other people. Even though Mary is altruistic, saintly, and does what's "right", she doesn't seem to be very independent or know when to "take a chance."

Kate

Here is Kate, who is 10 years old. Kate is very much like Beth in that she is able to be agreeable at times, but is also able to be strong-willed if she wants. Here is a typical Saturday in her own words.

Mum told me to get up but I didn't 'cos I was nice'n snugly in bed. When she yelled again I got up. I wanted to wear my new jeans but wasn't allowed to. For breakfast I had toast and jam. Amelia my friend called to ask me to go to her place and play but I didn't want to 'cos I wanted to go to the shop with mum to get some new dress material. I said I'd go later though. At the material shop I got some lovely yellow Paisley. The lady asked me to buy the last bit of material on the roll so I did. As soon as I got home I wanted to use the sewing machine but wasn't allowed. Then dad asked me to clean the swimming pool - that always takes ages, but I did anyway. In the middle of it I had a curried egg sandwich and milk for lunch. After, I went to Amelia's and she showed me her new shoes called "Progues", - really nice. The boys next door to Amelia's wanted us to play Spin-the-bottle with them – no way known! Later, mum 'phoned to get me home to get changed 'cos we were going to my Aunty's and Uncle's house for tea and to watch videos. I wore my new jeans - unreal. For tea we had casserole. I hate that stuff so they made me a toasted cheese sandwich instead. After tea, Petra my cousin took me outside and offered me a puff of her cigarette – I didn't though 'cos I didn't want to die. She said I was a suck-hole, well I didn't care. The video was pretty boring - *The Cused* or somethin'. Later, dad asked me did I have a cigarette with Petra but he knew I wouldn't. Mum told me to brush my teeth and go to bed. Oh yeah, - first I had a really great pillow fight with dad.

As you can hear, Kate is sometimes able to conform and other times able to assert. Sometimes she likes a bit of excitement, and sometimes she likes a bit of quiet. So Kate is able to be strong-willed and spirited, but also she seems to know when it's best to avoid an argument or "play it safe."

Kerri

Here is Kerri, who is 10 years old. Kerri is very much like Nicole, in that she likes trouble. She either goes out of her way to make trouble, or when she's asked to do something she doesn't want, she won't do it which causes trouble. Her days are usually very different because she likes excitement and lots of variety. Here is a typical Saturday in her own words.

Err... wanted a drink of Fanta for breakfast but wasn't allowed so I asked dad but 'still wasn't allowed so I went outside and threw a brick which hit Mark my brother's bike, but it was an accident. Anyway Mark was using my tennis racquet so I chased him but he just ran away - sook! Had to bring my dirty washing to the laundry but didn't. Just looked around 'cos there was nothing to do again. Opened the hutch door to let Hammy out but he was still asleep so I poked a stick at him. Got out the tent to make a cubby house next to the veggie patch. It kept falling down so I asked mum and dad but they wouldn't help. So I kicked it and left it. Went to the park. Some kids were playing with a lost kitten and I said "she's mine" but they wouldn't give her to me. So I threw a stick at their bikes and ran away. At home I dressed Hammy in Mark's T-shirt but he scratched me and did a wee in the T-shirt so I pushed him away but he just stood still. Mum told me I had to go with dad to his work but I didn't want to but she still made me go, so when they weren't looking I trampled on the veggie patch, but don't tell them will you? I made Mark get in the back seat 'cos I wanted the front. He's a whimp and wouldn't dare fight me. On the way dad wouldn't let us get an icecream - hate his rotten guts, so then I wouldn't talk to him and told him to "F-off." Work was boring and I made Mark get off the computer and he started crying so dad turned it off. Then Mark tripped on the carpet and started crying - it

was so funny. At home me and Mark climbed the fence, even though were not supposed to. Mum yelled out the window but I said Mark made me do it. It was Mark's birthday so at tea we had lots of yummy cake. That's all I suppose.

As you can hear, Kerri is argumentative. She likes to have things her own way, and hardly ever does what is asked of her. Even though Kerri is strong-willed and spirited, she doesn't know when it's best to "play it safe" or conform for her own good.