

UNIVERSITY OF MANITOBA

FANTASY LIFE AND MEDIA USE PATTERNS OF ADULTS AND CHILDREN



by

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the University of Manitoba in partial fulfillment of the requirements
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"You walked in, and my life began again,

Just when I'd spent the last piastre I could borrow..."

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ABSTRACT

Two separate studies investigated the fantasy life correlates of media use in adults (television, radio and print) and children (television only). In the Adult Study, 219 subjects completed the Imaginal Processes Inventory, Personal Attributes Questionnaire, and a Media Use Check List generated for this study. The media use and fantasy life measures were administered as ostensibly separate studies on different occasions and all measures were anonymous. Contents in each of the three media were categorized into eight types: 1) Interpersonal Information, 2) Impersonal Information, 3) Sport & Physical Activity, 4) Sexual-Romantic, 5) Musical, 6) Nonviolent Drama, 7) Violent Drama, 8) Humorous. Principal Components Analysis yielded seven fantasy and sex-role and seven media use factors which were subjected to Canonical Correlation analysis. Results indicated that a media diet heavy in print pornography, sports in all three media, and general TV viewing characterized individuals with masculine sex-role and interest patterns and a ruminative and hostile fantasy style. Such individuals were also high in guilt, fears of failure and heroic fantasies, were unlikely to read other types of printed matter or to listen to radio. Such a ruminative, hostile and dysphoric fantasy life was also found to correlate with television use alone, particularly viewing of musical, comedy and violent programs. Heavy users of a media diet of radio and sports in

all media were low in unpleasant fantasies but were also low in a variety of other positive and negative sorts of fantasy.

In the Child Study, 82 grade one students were individually tested using the Imaginal Processes Inventory for Children. They were also asked to identify 20 photographs of TV personalities, selected on the basis of correlations with parental reports and parents' own viewing in a pilot study, from an initial set of 40 photographs. Children also were given the Peabody Picture Vocabulary Test. Canonical Correlation analysis yielded two significant patterns. A correlation of TV recognition scores with IQ probably reflected methodological similarities of the two measures.

For children, as for adults, a negative, anxious, hostile fantasy style was correlated with general television viewing, especially viewing of comedies, nonviolent drama and sports. A gender-related viewing and fantasy pattern also emerged. Boys were more likely to watch sports, talk shows and violent programs and to be lower in fanciful "childlike" fantasies; girls were higher in this type of fantasy and more likely to view comedies and nonviolent dramas.

The finding, in both studies of an association between TV viewing and hostile ruminations suggests this may be a general phenomenon.

Some patterns of media use were found in these studies which were consonant with three of the four theoretical models of fantasy life and media use outlined.

INTRODUCTION

Several authors (Antrobus, 1968; Klinger, 1971; Segal, Huba & J. Singer, 1980; J. Singer, 1966, 1973, 1975b) have ably chronicled the history of the psychological research on fantasies and daydreaming, as well as recording their pleasure at this area's liberation from the hegemony of the early behaviourists' opposition to inner experience. The reader interested in the early history of fantasy research is referred to any of these excellent reviews. Contemporary research on the topics of daydreams and fantasizing has grown exponentially in the 15 years since Jerome L. Singer published Daydreaming (1966).

The purpose of this Dissertation is to outline the major theories of fantasy and daydreaming, then to describe the relationships between fantasy and media use found in two studies of adults and children, and finally to evaluate the theoretical implications of these new findings. Specifically, the research sought to determine how well measures of people's inner experience predict their self-exposure to a variety of external experience through radio, television and print communications. The fantasy lives of persons with differing media use patterns were described. The question of the relationship of fantasy to overt behaviour has long been of interest; this Dissertation deals with one type of overt behaviour, the "vicarious fantasy" of television, radio, and print material, as it relates to the inner world of private self-generated fantasy.

Defining Fantasy and Daydreaming

Like dreams, Freud considered fantasies and daydreams to be partial fulfillments of unsatisfied wishes. He went so far as to write "Happy people never make fantasies. Only dissatisfied ones do." (Freud, 1907, p.144). Although some authors (Rapaport, 1951; J. Singer, 1966) consider that Freud believed that fantasy originates in the infant's capacity for hallucinatory primary-process gratification, others (Sandler & Nagera, 1963) argue persuasively that Freud specifically linked the development of fantasy to the emergence of the reality principle. Fantasy, he believed, serves as a partial compensation for pleasure-objects foregone out of obedience to the reality principle (Freud, 1911). This is not a trivial distinction, since it confirms that for Freud, fantasizing was an ego function (Sandler & Nagera, 1963).

Because fantasy supposedly permits a modicum of energy discharge, it was theorized that engaging in, for example, aggressive fantasy could reduce aggressive drive. This is the aggression-catharsis viewpoint (Feshbach, 1955, 1961). One need only introspect on whether sexual fantasies serve a cathartic function, decreasing sexual drive, to understand the limitations of this part of the theory.

Kurt Lewin (1939) held a very Freudian view of fantasy as resulting from blocked access to goals, however he recognized that fantasy had negligible drive-reduction ability. Lewin believed that fantasies have high "substitute valence" in that persons will be most strongly attracted to themes which are most similar to their own most

pressing needs. He noted, however, that fantasy behaviours have little "substitute value"; little impact on the strength of the real needs. Werner's (1945) sensory-tonic theory is a similar substitutive theory, positing that thought and fantasy result from inhibition or blocking of overt action; that is, they are reciprocal processes. Fantasy has also sometimes been explained as play, internalized due to social constraints (Sandler & Nagera, 1963).

Jean Piaget (1955) defined play as pure assimilative behaviour; applying old schemata to new situations, and argued that all imaginative thought is internalized play (Piaget, 1945). Although it specifically links play and fantasy as a unitary process, Piaget's theory has been disappointing to some (Klinger, 1971; Sutton-Smith, 1966) who feel it excludes problem-solving and creative functions attributed to fantasy by some authors (J. Singer, 1966).

Others such as Robert White (1959) and Otto Fenichel (1939) see fantasy, like play, as independent of extrinsic motivations. White's concept of "competence" and Fenichel's "functional pleasure" stress the organismic search for mastery over the environment. White also draws on the work of Berlyne (1960) emphasizing the motivational value of novelty and stimulation in themselves. Freud's "repetition compulsion" and Fenichel's analysis of counterphobic behaviour illustrate another mastery-related use of fantasy. Prior traumatic events recur in dreams and fantasy, it is suggested, as an after-the-fact rehearsal that enables the individual to overcome anxiety initially occasioned

by the traumatic event.

Csikszentmihalyi (1975) and Palmgreen (1971) have emphasized the predictability or barrenness of the environment as a determinant of fantasizing:

For most of us, a great many situations and environments contain redundant information. We can rely on established motor patterns to carry us through these phases, and under such circumstances, we may drift into daydreaming and fantasy.

(Csikszentmihalyi, 1975, p. 56).

When external demands become too strong for one's abilities, worry or anxiety will occur, while boredom is the result of the opposite situation, where one's abilities far exceed external demands, and one becomes more attentive to the inner stream of consciousness.

Csikszentmihalyi emphasized the state of "flow" where external demands closely match one's skills and abilities. At such times, thought and action are completely meshed, and one is not aware of the stream of consciousness. Flow states "represent some of those few situations in which our minds are truly 'blank'," (Segal, Huba & J. Singer, 1980, p. 56) and are offered as an explanation for "autotelic" behaviours such as play, risk-taking, and the arts, which occur independent of and often in spite of extrinsic reinforcements.

Poised between boredom and worry, the

autotelic experience is one of complete involvement of the actor with his activity. The activity presents constant challenges. (Csikszentmihalyi, 1975, p. 35-36).

This theory is compatible with Tomkins's (1962-1963) theory of emotion. Tomkins sees memory as an active process of matching inputs to established memory schema. This view holds that the affects of interest and surprise can give way to fear as the amount of novel information in the environment increases faster than the person's ability to match the input to existing memory schema. Boredom is elicited by exposure to too little novelty, with input too easily matched to memory schema to produce interest. J. Singer (1974, 1977) has acknowledged Tomkins's important influence on his theory of fantasy:

We generally seek optimal levels of stimulation and by and large these are available from external sources. When we find redundancy in our external environment...then we seek optimal levels of...matching of novel materials from the ongoing activity of the brain. (J. Singer, 1977, p. 100)

Emphasizing this cognitive-affective theory of fantasy, J. Singer has sidestepped the question of the origin of fantasy behaviour by stating:

It seems likely that daydreaming is in a way just there--it is a capacity, just like our capacity for language or our capacity to develop various motor skills, which has evolved in human beings as part of our behavioural repertory. (J. Singer, 1975b, p. 119)

Among the evolutionary adaptive functions of daydreaming he enumerates are planning, rehearsal, enriching present and future experience, self-motivation, and distraction from boredom and frustration.

Jerome Singer has defined fantasy as:

A shift of attention away from an ongoing physical or mental task or from a perceptual response to external stimulation towards a response to some internal stimulus. The inner processes usually considered are "pictures in the mind's eye", the unrolling of sequences of events, memories, or creatively-constructed images of future events of various degrees of probability of occurrence. Also included as objects of daydreams are introspective awareness of bodily sensations, affects or "monologues interieurs". (J. Singer, 1966, p. 3)

J. Singer also stresses that "ongoing thought" is the background or baseline of mental activity:

There seems to be increasing reason to believe that the way we organize thinking is through constant replay and re-examination of memories, projection of thoughts and fantasies onto a kind of general format which has in many ways the properties of an alternative environment. In effect what we are often doing as we go about our day-to-day business is not only processing information from the external environment, but also, through the continuous nature of our thoughts (what William James called the "stream of consciousness") recreating an alternative environment and generating novel contexts to which we also make responses. (J. Singer, 1979, p. 4)

John S. Antrobus (1968) has defined fantasy, daydreaming and mind-wandering as "stimulus-independent mentation". By this he means that thoughts in the stream of consciousness are not derived from external stimuli but have their origins in the internal stimuli of long-term memory. Antrobus's view, like that of his collaborator, J. Singer, resembles the Freudian concept of the "preconscious"; material that is generally present but which comes into awareness only as a result of some

special shift of attention toward it.

Although adhering to a view of fantasy and daydreams as a background of "task-irrelevant thought", Eric Klinger (1971) regards this thought as somewhat related to external events. He stresses the "respondent" nature of fantasy and daydream segments, as opposed to the "operant" nature of directed thinking. By exclusion, Klinger defines fantasy as "...report of mentation other than orienting responses to, or scanning of, external stimuli, or operant activity such as problem-solving in a task situation." (Klinger, 1971, p. 9).

Contents of fantasy segments are determined by the individual's "current concerns", defined as interrupted but not abandoned goal-strivings (Klinger, 1971, 1975). "Fantasy processes constitute a continuous cycling of response elements that are most likely to be relevant to the individual's present life situation." (Klinger, 1971, p. 356). Klinger rejects the drive theories of fantasy, stressing instead the effect of incentives on fantasy contents. Further, Klinger notes that fantasy has little or no effect on drive level. This position is quite compatible with that of Lewin (1939). Klinger postulates that mere deprivation of some desired activity will not give rise to expressions of that activity in fantasy unless some future possibility for engaging in the goal activity exists, in other words, some incentive. Klinger sees fantasies as effortless, integrated response sequences accompanied by affects and impervious to feedback. Although fantasies can be elicited with some reliability by given incentives, they are immune to oper-

ant reinforcement and punishment. Cues in one fantasy segment elicit the next segment by arousing affects, which help determine the content of the next segment. Klinger's theory recognizes other determinants of fantasy as well, such as the elicitation of "organized subselves" of the individual by the observation of models (Klinger, 1967).

Recently, Segal, Huba & J. Singer have distinguished daydreaming from fantasy. They:

propose that daydreaming be regarded as that aspect of the stream of consciousness that involves a shift of attention away from an ongoing task or externally derived stimulus context, and that fantasy be considered a specific type of daydream that introduces new combinations of material from the past to an especially probabilistic or even impossible private context. (Segal, Huba & J. Singer, 1980, p. 37)

This Dissertation recognizes that distinction, but recognizes also that the two types of content are often inextricably intermixed in even short segments of private thought. Throughout this Dissertation, the terms daydreaming and fantasizing will be employed to refer to the process or behaviour of generating or attending to task-irrelevant private mentation, while the terms daydream and fantasy will be used to denote

the contents of this mentation.

Fantasy and Development Over the Lifespan

Fantasizing and daydreaming are generally considered normal, and certainly normative behaviours (Csikszentmihalyi, 1975; Klinger, 1971; J. Singer, 1966). Fantasizing and daydreaming reportedly occur daily in 96% of adults questioned (J. Singer, 1966).

Albert Einstein is reported to have said:

When I examine myself and my methods of thought,
I come to the conclusion that the gift of
fantasy has meant more to me than my talent
for absorbing positive knowledge. (Stockton,
1979, quoted in J. Singer, 1979, p. 1)

Patterns of fantasy content typical of different ages have been described on the basis of extensive research and observation. Particular interest has been shown in the more visible fantasy productions of children.

Children's fantasies and daydreaming The emergence of children's fantasy ability, variously defined, has been dated at nine to twelve months (Gould, 1972), 12 months (Piaget, 1945) or the second or third year of life (Klinger, 1971), with dependence upon verbal report or observation of overt behaviour often producing uncertainty in the observer. It is not productively possible to discuss fantasy and imaginative play in very young children separately. This review, however, will confine itself to imaginative fantasy play, rather than

purely motoric or socialized, rule-following play. Readers desiring a more comprehensive treatment of play in all of its forms are referred to a collection of works edited by Bruner, Jolly & Sylva, (1976).

That imaginative play and internal fantasy constitute a unitary process has been argued by several authors (Klinger, 1971; J. Singer, 1966, 1973); furthermore, several theories of the ontogenic evolution of fantasy see it as merely internalized play, which has become private either because of its content (Sandler & Nagera, 1963) or social strictures (Piaget, 1945; J. Singer, 1966). J. Singer described how overt fantasy play decreases at puberty, to be replaced by a greater emphasis on internal fantasy processes as play becomes more organized and rule-bound. Children at this age may resort to drawing and television viewing for fantasy expression and as a source of new contents for fantasies (Lyle & Hoffman, 1972).

Observational accounts of changes in children's play and fantasy patterns over time abound. Piaget (1945) distinguished three stages: a highly-imaginative stage from ages one to three where play is less socialized and symbolism is highly distanced from reality; a second stage ages four to seven, where play is orderly, has set roles, and fantasy attempts to recreate exact reality; and a third more-socialized stage (8 to 12) where games with rules predominate and fantasy is much less prominent. Sanders & Harper (1976) observed fantasy play of three-to-five year-olds and noted sex differences as well as changes with age and season. Older children (closer to five) showed more make-

believe play than younger ones and more outdoor and interactive fantasy play. Boys spent more time in solitary fantasy play than girls did. Boys' solitary fantasy was least in winter and greatest in fall; girls showed the exact opposite pattern, possibly due to indoor-outdoor game preferences.

Other interesting observational accounts of children's fantasy were reported by Matthews (1975) who noted sex differences in roles taken and in length and interruption of fantasy segments. Girls had longer, more frequently-interrupted fantasies; boys' fantasies were shorter and less-often interrupted.

Studies of the relation of fantasy play to cognitive development within the Piagetian model (Sutton-Smith, Botvin & Mahony, 1976) showed increased socialization of the structure of fantasies with age. "Children are increasingly socialized into patterns of public legend and mythology over this period." (Sutton-Smith et. al., p. 1)

Changes in fantasy themes also reportedly parallel the stages of the child's psychosexual development in Freudian terms. Despert (1949) reported that the dreams of very young children (age two) dealt predominantly with fears of being bitten or other damage by oral incorporation. More mundane forms of aggression that the child might have actually experienced were absent in dream reports. In the third and fourth years of life, ghosts, witches and powerful, devouring animals took over the chasing. More recent research (Foulkes, 1978) has challenged the psychodynamic view of children's dreams as being highly

complex and symbolic. Rather than finding sleeping mentation to be precocious in its development relative to the child's waking thought, the author concluded from a five-year longitudinal study that:

Young children's dreams are generally rather simple and unemotional. The study further suggests that, as with other mental skills, the making of elaborate, imaginative and even frightening dreams is a developmental accomplishment that is "perfected" only as we reach maturity. (Foulkes, 1978, p. 78)

Fantasy story themes during the Oedipal stage of the child's development reflect the growth of superego structures, sex identification, and greater control over drives over the course of a year (Scheffler, 1975). Superego development was also observable in play fantasies of nursery school children of various ages in a study by Gould (1972). Indicators of developmental difficulty in the children were seen in their fantasy productions or lack of them, for instance a state of "fluctuating certainty" or difficulty in maintaining the reality-fantasy boundary in their own aggressive fantasies above the age of two and a half was found to be related to affective problems. Continued use of "I" in fantasy beyond age four, with failure to adopt comfortably other identities, was also pathognomic of some developmental difficulty.

Wolfenstein (1954) has analyzed children's love of riddles as reflecting the value they place on knowledge of secrets arising during

the Oedipal period of intense curiosity.

Fantasies of the latency age child undergo a transformation from inner to social-related concerns. The monsters, ghosts, and animals of the five-to-eight-year-old's fantasies are replaced by family, friends, and pets in fantasies (Sarnoff, 1976). Sarnoff suggests that fantasy changes its function also, from primarily a mechanism of discharge to a mechanism for rehearsal and social interaction. Early latency fantasies look backward to childhood and Oedipal concerns; late latency fantasies look forward to adolescent and adult sexual and social concerns (Sarnoff, 1976).

Particularly common varieties of childhood fantasy have received some study. The "family romance" is a common latency fantasy of actually being the child of wealthy or famous parents, left for one reason or another in the temporary care of one's (real) parents, who are much less exciting (Freud, 1907, 1908; Kaplan, 1974). It is suggested that this fantasy serves as a self-esteem regulator, originating in the inevitable disillusionment with one's parents (Kaplan, 1974). The fantasy can appear in pre-Oedipal or Oedipal periods, but is generally fully regnant during latency. In modified forms it can continue throughout adult life as an expression of dissatisfaction with the limits of one's existence. The family romance is considered by some to be the precursor of the ability to form a transference relationship in therapy (Kaplan, 1974).

The well-known imaginary playmate fantasies of children, reported

by one-third (J. Singer, 1973) to 65% (Caldeira, J. Singer, & D. Singer, 1978; Pines, 1978) of preschoolers, seem to be a healthy fantasy.

Imaginary playmates are generally a transient phenomenon, at their peak between the ages of three and four (Ames & Learned, 1946), more often reported by children than by their parents (Caldeira, J. Singer & D. Singer, 1978). Children with imaginary playmates have been found to be more creative when they reach adulthood (Schaeffer, 1969). These children express more positive emotions in play, are less aggressive, more cooperative, and more able to concentrate, less prone to boredom, and more advanced in language usage than children without such companions (Caldeira et. al., 1978). A study by Fling (1974) found no differences in intelligence, creativity or waiting ability between groups of children with and without imaginary companions. Her groups were based on parental reports a year previous, and may not have been accurately differentiated. J. Singer (1973) found waiting ability was significantly related to high general fantasy ability, as measured by a four question interview, including an "imaginary playmate" question.

Children with imaginary playmates watch less than half the amount of television viewed by children without such friends, and prefer less violent content and fewer cartoons (Pines, 1978).

Imaginary companions are most often male, and usually derived from TV or animal characters. Imaginary companions are most often produced by the more intelligent children and more frequently by oldest or only children (Ames & Learned, 1946; Caldeira et.al., 1978). Human com-

panions are more common for girls than boys, with the frequency of animal companions about equal between the sexes. More than one imaginary playmate per child is not uncommon (Ames & Learned, 1946). There is some evidence that more negative characteristics are projected onto imaginary animals than persons, the former serving more of a scapegoat function or expressing less-acceptable impulses (Ames & Learned, 1946). The imaginary companions of blind children are most often sighted characters; the function of this fantasy is rather obvious (J. Singer & Streiner, 1966).

The common fantasy of having a twin (Burlingham, 1945) resembles the family romance and imaginary playmate fantasies and can also serve to express dissatisfactions or conflicting parts of the personality.

Several of the more common children's fantasies are explicitly encouraged by adults (often for their own purposes). Prentice, Manosevitz & Hubbs (1978) found that belief in Santa Claus, the Easter Bunny and Tooth Fairy was correlated with parental encouragement of such fantasies, but unrelated to indices of the child's own imaginal capacities. Schmechel (1975) reported that belief in Santa Claus declined with age, though it was stronger in girls than in boys at all ages, and declined with increasing causal reasoning power, though for some children the belief was still very strong despite very sophisticated levels of causal reasoning. Cohen (1975) analyzed the themes in children's high fantasy literature as a means of philosophical debate without recourse to moralizing. Wolfenstein

(1976), analyzing adult Utopian literature, concluded that it recapitulates the early latency concerns of school children regarding control and surveillance, as they enter school.

Bruno Bettelheim has produced an extensive and moving description of the educative symbolic messages in traditional fairy tales in The Uses of Enchantment (1976). The importance of frightening fantasy material in helping the child to bind anxiety is stressed as well. Bettelheim criticizes the tendency, based in adult anxieties and projective idealization of childhood, to sanitize all the fright out of children's fiction.

Reality/fantasy is a mode of categorizing experience used by children, developing gradually over the years as part of their active process of structuring inner representations of their environment (Piaget, 1955). For example, Morison & Gardner (1978) found that children sorted pictures on the basis of the reality or fantasy status of the characters consistently before they could verbalize the reality/fantasy dimension as a reason for their sortings. At younger ages, most errors were made in classifying fantasy characters as real rather than in misclassifying real characters as fantasy. Children were more likely to verbalize a reality/fantasy rationale for grouping characters' pictures together if both were from fairy tales, than if one or both were from pop culture or television (Morison & Gardner, 1978).

Many correlates of fantasy ability in children have been identi-

fied. High fantasy predisposition in children is correlated with an internal locus of control (McNary, 1975; J. Singer & D. Singer, 1976). More-imaginative children feel more in control of positive outcomes in their environment and believe that negative outcomes are due to external forces.

Significant sex differences in children's daydream fantasy have consistently failed to appear when fantasy has been conceived as a unidimensional construct. Rosenfeld (1978) studied nine process and content dimensions of children's daydream fantasy and although she reported no sex differences in fantasy frequency, there were stylistic differences between boys and girls. Six-to-eight-year-old girls were higher than boys in the Fanciful-Scary-Vivid style, while boys were higher than girls in the Active-Intellectual style of daydreaming.

No significant relationship has generally been found between fantasy ability and IQ, however one study (Zuckerman, D. Singer & J. Singer, 1980) reported a positive correlation between IQ and teacher-rated imaginativeness of written school work. Given that imaginativeness was rated on a one-item scale by teachers, it is possible that these ratings were heavily weighted by verbal fluency and productivity and a correlation with verbal IQ is not unexpected.

No relation between number of siblings and fantasy capacity has been found with adults (J. Singer & McCraven, 1961) and one child study suggesting an association between fantasy ability and firstborn or only-child status was unreliable due to the preponderance of firstborns in

the sample studied (J. Singer, 1973). The literature on imaginary playmates links this particular type of fantasy to only-child status (Ames & Learned, 1946).

Findings regarding the relationship of fantasy to preference for one parent over the other have been contradictory (J. Singer, 1973; J. Singer & McCraven, 1961; J. Singer & Schonbar, 1961).

Behaviourally, high-fantasy children have been described as more preoccupied with Oedipal concerns, while low-fantasy children show more conflicts related to oral deprivation, loss of love, and aggression. High-fantasy children use more obsessional defenses; low-fantasy children employ hysterical "acting-out" defenses (J. Singer, 1973) and have difficulty in self-control and impulsivity (J. Singer & D. Singer, 1976). High-fantasy children are capable of tolerating a long, boring wait more readily than low-fantasy children (J. Singer, 1973, 1979).

High-imaginative three-to-six-year-olds, so identified by an Imaginative Predisposition Interview and the Barron Movement Threshold Inkblots, spoke significantly more words and in significantly longer utterances during play than low-imaginative children did (D. Singer, Caldeira & J. Singer, 1977). These findings held irrespective of age and IQ. Children with imaginary playmates use longer, more complex sentences in spontaneous play (D. Singer & J. Singer, 1978). The opportunities for rehearsal and practice of language skills provided by fantasy play has been noted by many (Caldeira, J. Singer & D. Singer, 1978; D. Singer & J. Singer, 1977; J. Singer, 1979).

High-fantasy children told more creative stories than low-fantasy children in a study by J. Singer (1973), and at some ages in a study by Rosenfeld (1978) this result was replicated.

It certainly appears that the capacity for fantasy can be, if not taught, certainly fostered in children (deMille, 1973; Freyberg, 1973; Nahme-Huang, D. Singer, J. Singer & Wheaton, 1977; D. Singer & J. Singer, 1977; J. Singer & D. Singer, 1976). The role of reading and being read to has been emphasized as a precursor of fantasy ability (J. Singer, 1979, 1980).

Other positive characteristics attributed to high-fantasy children are increased development of empathy, planning and foresight, aesthetic appreciation, and self-entertainment and positive emotionality (J. Singer, 1979).

A significant methodological advance beyond simple categorization of children as "high" and "low" fantasizers or daydreamers, was the work of Rosenfeld (1978) who developed a self-report measure, the Imaginal Processes Inventory for Children (IPI-C). This instrument provided measures of nine imaginal process and content variables, and the author has elucidated three fantasy styles with similarities to those found in adults with the Imaginal Processes Inventory (J. Singer & Antrobus, 1972). These three children's styles were: 1) Negative-Aggressive-Absorbed, 2) Fanciful-Scary-Vivid, and 3) Active-Intellectual. The second style is the most "childlike" pattern of fantasy (Rosenfeld, 1978).

Adolescent fantasies and daydreaming Although adolescents report much more daydreaming than younger or older persons (J. Singer, 1975b), less has been written about this age group than about children, probably because adolescent fantasizing and daydreaming is private and internal while children's fantasy play is more public and overt. The intensification of daydreaming in adolescence has been related to the reduction in overt fantasy play due to social demands (Klinger, 1969). The peak for adolescent daydreaming is age 18 (J. Singer & McCraven, 1961). With entry into adolescence, fantasy themes also change from fantastic adventures to interpersonal, vocational, future, and sexual themes (Gottlieb, 1973; Klinger, 1971; Sarnoff, 1976; J. Singer, 1975b). Symonds and Jensen (1961) followed up adolescents whose fantasies they had collected ten years earlier and found that many of the fantasies had been realized in adulthood. Besides anticipatory and planning functions, adolescent daydreams and fantasies allow the individual to explore his or her identity by trying out a number of roles, many emulated from popular culture (J. Singer, 1975b).

Deficiencies in fantasy ability and negative ideas and imagery may be related to delinquent acting-out in adolescence (J. Singer, 1975b). Taylor and Fulcomer (1979) found that higher-IQ adolescents were more accepting of fantasy and had fewer bizarre, hallucinatory, hostile, failure and guilt daydreams than lower-IQ adolescents. Although fantasy frequency is unrelated to intelligence, these data suggest that cognitive skills, as measured by IQ, are important for constructive use

of fantasizing and negatively related to neurotic, obsessional daydreaming.

A large proportion of adolescent fantasies are sexual and accompany masturbation (J. Singer, 1975b). A discussion of masturbatory and other sexual fantasies appears below in the review of adult fantasies and daydreams.

Adult fantasies and daydreaming The frequency of daydreaming declines with entry into adulthood and throughout adulthood into old age. Although a broad range of daydream and fantasy themes continues to be represented at older ages, all categories of daydreams except playful problem-solving decrease with age (Giambra, 1977, 1979-80; J. Singer, 1975b). Nonetheless, virtually all adults do report some fantasy and daydream activity daily (J. Singer & McCraven, 1961). No longitudinal studies have yet appeared, so some of the differences between age cohorts may reflect social norms and acceptance of fantasy at different historical times.

Normative adult daydream studies using self-report scales (J. Singer & Antrobus, 1963; J. Singer & McCraven, 1961) which eventually evolved into the Imaginal Processes Inventory (IPI) (J. Singer & Antrobus, 1970, 1972), represented an important step in making measurable variables of adult fantasy processes and contents. Most adult daydreaming was found to take place alone before sleep; the least was on awakening or during sex or meals. Most adults reported that daydreaming was enjoyable. Most common themes in adults were practical,

anticipatory concerns for the future, plans, goals, sexual and interpersonal relationships, as well as some more speculative future musings and wishes (J. Singer & McCraven, 1961). Fearful or anxious daydreams did occur but not as frequently. It was found that the high-frequency daydreamers reported more improbable, wishful and fantastic themes than the low-frequency daydreamers.

Major fantasy frequency differences related to ethnicity were observed, with less-secure groups such as blacks and Jews characterized by a higher frequency of fantasy while in-group Anglo-Saxons daydreamed least. Striving for social mobility (incentives) and differing cultural values regarding the reporting of inner experience may be implicated. The relationship between creativity, closer identification with the mother, and high-frequency fantasizing sometimes observed in children has also been seen in adults (J. Singer, 1975b).

Factor-analytic studies of daydreaming patterns as reported on the IPI have revealed three "daydreaming styles":

1) Guilty-Obsessional-Emotional Daydreaming, characterized by fantasies with a:

strongly ethical tone, full of self-doubt,
and self-questioning...much striving for
achievement and significance through
heroic activities but also considerable
fear of failure and resentment of others

(J. Singer, 1975b, p. 69)

2) Anxious-Distractibility in Daydreaming, characterized by:

many rather fleeting and loosely-connected fantasies, usually involving anxieties and worries. Such an individual would experience an inability to attend to tasks and to stick with anything for a period of time... daydreaming is not a useful resource and they take little pleasure in it. (J. Singer, 1975b, p. 68)

3) Positive-Vivid Daydreaming, characterized by a:

generally positive approach to one's own fantasy activity characterized by an enjoyment of daydreaming and its use for anticipation of the future and for self-distraction without any pathological implications.

(J. Singer, 1975b, p. 70)

A fourth, "Controlled Thoughtfulness" factor emerged as separate from factor three in some samples.

As is the case with adolescents and children, a great deal of adult fantasy stimuli are vicarious or mass-produced. Television, magazines, radio, films, theatre, books, all provide shared fantasy experiences which may comprise a larger relative portion of the adult's fantasy life than the child's (with her/his constant ongoing fantasy play) or the adolescent's (with fewer demands and longer periods of

solitary time for daydreaming).

More than ever before, our society has built into it a vast array of opportunities for diversion through fantasy. For millions of men the Sunday afternoon football games provide a vicarious daydream of achievement and empathy. For millions of women the daily comings and goings of Jackie Kennedy Onassis (as reflected in popular magazines) or the vicissitudes of Hollywood marriages play a similar role. (J. Singer, 1975b, p. 172)

Also for many adults, alcohol and other drugs serve a fantasy-enhancing function, altering either the nature of the fantasy processes themselves or the individual's attention to the ongoing stream of imagery and mentation. Kalin, McLeod & Kahn (1965) observed that different themes appeared in projective stories as a function of number of drinks consumed, with aggressive and sexual fantasies generally emerging to a greater extent with increased intoxication. Several studies have appeared relating fantasy patterns and other personality traits to marijuana use (Huba, Segal & J. Singer, 1977; Segal & Feger, 1973; Segal, Huba & J. Singer, 1980; Siegel, 1978). In general, marijuana seems to serve to increase attentiveness to internal imagery and associations or to provide an opportunity for increasingly fantastic daydreaming. It appears that the reported decline in self-

generated fantasy in adulthood may be in part compensated for by greater consumption of externally-produced fantasy or vicarious experience material, or by chemically-induced fantasies. The adult's fantasy life may be more externally supported than that of the child.

Sexual fantasies Sexual fantasy is higher in males and better-educated persons, and declines with increasing age in both sexes (Giambra, 1977, 1979-80; Report of the Commission on Obscenity and Pornography, 1972). Non-longitudinal studies may reflect the effects of upbringing or mores on persons raised in different decades, however.

Although daydreaming was reported least frequent during meals and sex (J. Singer & McCraven, 1961), 65% of a sample of suburban housewives reported moderate to high levels of sexual fantasy during marital sexual relations (Hariton & J. Singer, 1974) as did 65% of married males in another study (Stewart, 1977). The most-frequently-reported sexual fantasies for both sexes involved sex with a different imaginary partner, and being passively overpowered (rather more voluntarily in the case of the males). Sexual fantasies during sex have not been found to be related to sexual dissatisfaction (Hariton & J. Singer, 1974; Stewart, 1977), although sexual dissatisfaction may be related to higher levels of sexual fantasy at times other than during sexual relations (Murray, 1978).

Sexual fantasies of males reportedly focus more on actual past and present behaviour while females' sexual fantasies are more imaginary (McCauley & Swann, 1978), whether these fantasies accompany mas-

turbation, intercourse or nonsexual situations. The sexual fantasies of less-sexually-experienced males have a more elaborate and make-believe quality than those of more sexually-experienced males (Segal, Huba & Singer, 1980). Social class, educational level and masturbatory practices influence the frequency of women's sexual fantasies (Shanor, 1974). Four general categories of masturbatory fantasy among college males have been delineated (Campagna, 1975): 1) normal sexual fantasies about women one knows, 2) more imaginative fantasies such as having a harem, 3) faceless, dehumanized sexual acts (presumably guilt-related), and 4) bizarre and unusual or deviant sexual practices.

Jerome Singer (1975b) posed a question for further research in this area when he wondered about the possible substitute functions of high fantasy ability when sexual partners are unavailable. Are persons with better-developed imaginal abilities to enhance masturbation resultantly less active in seeking sexual partners? J. Singer also mused on the nature of the relationship between internally-generated and externally-stimulated sexual fantasies, wondering whether there are:

differences between men who are able to produce their own pictures in their imaginations in order to become sexually aroused, and those who have to rely for arousal chiefly on erotic photographs in magazines? (J. Singer, 1975b, p. 158)

Sex Differences in Fantasies and Daydreaming

Sex differences in adult fantasies and daydreaming have been examined by a number of investigators using a variety of techniques from TAT and Rorschach test responses to the Imaginal Processes Inventory. Some consistent findings have emerged, for example, that men's daydreams reflect an impersonal curiosity about how things work while women's daydreams focus on curiosity about people (Giambra, 1980; Segal, Huba & J. Singer, 1980; J. Singer & Antrobus, 1972) and that men have more heroic fantasies than women (Giambra, 1980; J. Singer & Antrobus, 1972; Streissguth, Wagner & Wechsler, 1969; Wagman, 1967). No sex difference in guilty or fear of failure daydreams is another consistently reported finding (Giambra, 1980; J. Singer & Antrobus, 1972).

On most other daydream process and content dimensions, however, inconsistent and contradictory findings predominate. Some authors have reported no sex differences in daydream frequency or acceptance of daydreaming (J. Singer & Antrobus, 1972; J. Singer & McCraven, 1961), while others found that men were more frequent and acceptant daydreamers than women were (Streissguth et. al., 1969). A study by Giambra (1980) found that women were more frequent fantasizers than men at all ages from the teens to the nineties.

Although most authors agree men have more sexual fantasies than women (Commission on Obscenity and Pornography, 1970; Giambra, 1980; Kinsey, Pomeroy, Martin & Gebhard, 1953; LaGrone, 1962; Streissguth et. al., 1969; Wagman, 1967), Singer and Antrobus (1972) found no sex differences in their normative study with the Imaginal Processes In-

ventory.

Most investigators have found no sex difference in achievement-related daydreams (Atkinson, 1958; Giambra, 1980; J. Singer & Antrobus, 1972; Wagman, 1967), though some (Conley, 1978; Streissguth et. al., 1969) reported this theme was more frequent in women's fantasizing than men's.

A recent study suggests that the extremely high levels of hostile and aggressive fantasies in 17-to-23-year-old males (Giambra, 1980) may account for the reported finding (Wagman, 1967) that males exceed females in hostile and aggressive daydreams. Scores on the Hostile-Aggressive Daydreams scale of the Imaginal Processes Inventory were not found to be related to gender, but were correlated with the Masculinity scale of the California Personality Inventory (J. Singer & Antrobus, 1972). The same study found that the CPI Masculinity scale correlated positively and the Femininity scale correlated negatively with Heroic Daydreams. J. Singer (1975b) observed that males' acceptance of stereotypically "feminine" traits in themselves correlated positively with daydream frequency and acceptance, and negatively with impersonal-mechanical curiosity, sexual, heroic and achievement themes in fantasy. Self-perceived similarity to mother also positively predicted daydream frequency in both sexes (J. Singer, 1975b). Thus, there are suggestions of a sex-role effect on fantasy within each gender that may parallel sex effects between genders.

Male and female gender are not perfectly correlated with psycho-

logical masculinity and femininity (Bem, 1974; Spence & Helmreich, 1978); rather, masculine and feminine characteristics combine in the personalities of both males and females. Persons high in the positive attributes of both sex-roles are called "Psychologically Androgynous" (Bem, 1974). Sex-role is significantly related to sex-stereotypic personality characteristics (Harris & Schwab, 1979), while personality and fantasy style are highly interrelated (Segal, Huba & J. Singer, 1980). Simple comparisons on the basis of gender would seem likely to obscure important sex-role differences in fantasy and daydreaming. Many areas of fantasy (for example, sexual, aggressive, achievement) seem intuitively relevant to sex-role.

Only two studies have examined the relationship of sex-role to fantasy style. Rosenfeld (1978) operationalized sex-role as choice of sex-typed or sex-neutral toys by six-to-eight year-olds. Action fantasies correlated positively with masculine sex-role, and negatively with neutral sex-role. Fanciful-Intense fantasy style was positively correlated with feminine and negatively correlated with masculine sex-role. Negative-Aggressive fantasy style correlated positively with masculine sex-role and negatively with feminine sex-role, for both boys and girls.

Conley (1978) examined the relation of sex-typing, based on the Bem Sex-Role Inventory (Bem, 1974) to fantasy themes in TAT stories of adults. Highly sex-typed persons had significantly more Sexual, Boredom and Classroom-related imagery in their stories, and fewer Family and Career themes. A limitation of this study's methodology was the

use of absolute values of BSRI androgyny scores in correlations with fantasy themes. Using absolute value scores amounted to combining Masculine males, Masculine females, Feminine males and Feminine females into one "high sex-typed" group, and comparing them to a "low sex-typed" group--Androgynous and Undifferentiated males and females combined. Androgynous persons (high in both positive Masculine and Feminine qualities) differ in important ways from Undifferentiated persons (low in both positive Masculine and Feminine traits), although both groups are low in sex-typing (Bem & Lenny, 1976; Erdwins, Small & Gross, 1980; Harris & Schwab, 1979). The Androgynous and Undifferentiated groups could not be compared to each other or to other groups in Conley's (1978) study. In addition, the repeated use of simple Pearson correlations between BSRI scores and 17 imagery categories for each sex increased the risk that effects due to chance were underestimated.

The question of sex and sex-role differences in fantasy and daydreaming is far from resolved at this point.

Fantasy and Health

A number of writers stress that daydreaming and fantasizing are healthy processes (Klinger, 1971; Segal, Huba & J. Singer, 1980; D. Singer & J. Singer, 1977; J. Singer, 1973, 1975b) and not indicative of psychopathology (Starker, 1979; Starker & J. Singer, 1975). It has also been shown, though, that factors affecting physical and mental health can also affect the individual's daydreams and fantasies. For instance, depressed patients' fantasy lives are more restricted, they

have a more negative tone, and less positive perspective on the future (Giambra & Traynor, 1978; Starker, 1979). Schizophrenics, rather than having an overactive fantasy life, as public misconception would contend, show blocked and restricted fantasy ability, especially in the area of emotional-interpersonal imagery (Starker, 1979). Streissguth, Wagner & Wechsler (1969) found psychiatric patients reacted less to their daydreams than did medical patient controls.

Although serious psychological disorders appear to restrict and inhibit fantasy capacity, there are few other relationships between fantasy style and psychopathology (Starker, 1979). An active fantasy life is clearly a characteristic of the intact and well-functioning individual.

Blindness and deafness in children produce particular restricted fantasy styles (D. Singer & Lenahan, 1976; J. Singer & Streiner, 1966). Interestingly, blind children often have imaginary playmates who can see.

High levels of guilty and fear-of-failure fantasies characterize dialysis patients (Mlott, 1976) and terminally ill cancer patients (Greenberger, 1965). Dealing with these thoughts and fantasies may be an important part of psychotherapy with dying patients.

Paraplegics have been reported to be more frequent and absorbed daydreamers than nondisabled persons (Rustad, 1975), with quadriplegics higher still in use of fantasy, hypothesized as a reaction to further restricted motility.

The fantasy lives of male and female smokers, nonsmokers and stopped smokers have been found to differ significantly (Mlott & Mlott, 1976). Male smokers fantasized the most compared to males in the other groups; female smokers fantasized the least of the female groups. Male smokers and female nonsmokers reported the highest levels of achievement fantasy.

High daydreamers have been reported to be less repressed, more self-accepting, and creative, though more anxious, than low daydreamers (J. Singer & Rowe, 1962; J. Singer & Schonbar, 1961).

Segal, Huba & J. Singer (1980) have reported that they can predict substance use and abuse in college students from daydreaming and other personality measures with 60-65% accuracy, however longitudinal prediction studies are still awaited.

Daydreaming, Fantasizing and Use of the Mass Media

Although the contents of fantasies and daydreams are an intrinsically interesting area of study, the applied relevance of fantasy research involves the relationships between daydreaming and fantasizing and other behaviours. One class of other behaviours that has received considerable attention is consumption of the mass media--radio, television, and print.

A variety of models have been advanced to describe the form of the relationship between fantasizing and media use. Table 1 presents a four-fold classification system within which the several models will be described and contrasted. This classification system employs the dis-

Table 1

Four-Quadrant Classification of Theoretical Views of the
Relationship of Media Use to Fantasies and Fantasizing

MEDIA CONTENTS

Personally-Relevant (Reflect "Current Concerns") Personally-Irrelevant (Unrelated to "Current Concerns")

RELATIONSHIP OF MEDIA USE BEHAVIOUR TO FANTASIZING

Positively Correlated (Direct Expression)	1. High levels of fantasizing and of consumption of personally-relevant media contents. Interests model; "Organized selves"; Vicarious participation.	3. High levels of consumption of personally-irrelevant media contents with high levels of fantasizing. Competition-distraction or "escape" model; Stimulus-seeking to drown out dysphoric inner life.
Negatively Correlated (Reciprocal, Substitute Expression)	2. High levels of consumption of personally-relevant media contents with low levels of fantasizing, <u>or</u> high levels of fantasizing with low levels of consumption of personally-relevant media contents. Substitutive model; Media catharsis.	4. High levels of consumption of personally-irrelevant media contents with low levels of fantasizing, <u>or</u> high levels of fantasizing with low levels of consumption of personally-irrelevant media contents. "Passive TV addiction" model: "Is media replacing imagination?"

inction between the contents of fantasies and daydreams and the act or behaviour of fantasizing or daydreaming, since many of the theoretical views presented deal primarily with one or the other, or differentially with both.

Quadrant #1 represents those cases in which the contents sought out from TV, radio or print media reflect or are relevant to current concerns. Quadrant #1 also defines the condition in which an individual both fantasizes actively about a given subject and consumes media materials relevant to that subject: the condition in which a current concern activates both high fantasizing and high media use.

Quadrant #2 defines those cases in which media contents watched/listened to/read reflect or are relevant to current concerns, as in quadrant #1. In quadrant #2, however, are represented those cases in which a current concern activates high levels of fantasy but low levels of media consumption (e.g. one avoids media content related to the topics of one's fantasies). This reciprocal relation between fantasizing and media use in a current-concern-related realm also includes situations in which a person's current concerns are reflected in media use but not in fantasy; in other words, cases in which using media substitutes for fantasizing about particular contents.

Quadrant #3 defines those cases in which the media contents consumed are irrelevant to or different from the person's current concerns. The behavioural dimension of quadrant #3 describes the situation where high levels of fantasy are accompanied by high levels of this concern-

irrelevant media consumption, as in cases where media materials are sought out as distraction from current concerns, to the extent that these concerns are highly active in fantasies.

Quadrant #4, as quadrant #3, deals with media content that is irrelevant to current concerns. In quadrant #4, however, heavy use of such material accompanies low levels of fantasizing, while high levels of fantasizing occur with lesser use of such materials, in a reciprocal relationship. Quadrant #4 is similar to quadrant #2 in recognizing that media use may sometimes be substituted for one's own fantasizing, or vice-versa, though their views of the relevance of media contents differ.

An examination of theories and data pertinent to these four models will clarify the typology.

Quadrant #1 relationships between fantasizing and media use fall under the rubric of "direct expression" (Klinger, 1971) since the contents of fantasies and media use parallel the person's behavioural dispositions. Fantasies can serve incentive functions as the person moves toward some goal (Klinger, 1971). Media can be used for information seeking and exploration, or to enhance the individual's fantasies by providing new contents relevant to them. Examples might be active seeking out of TV, radio and print depictions of Hawaii by a couple who have just decided to take a holiday there, or intensive seeking out of information regarding Soviet-Polish relations by a person of Polish descent who has recently become fearful for his relatives' safety.

A large-scale demographic study (Frank & Greenberg, 1980) found much of people's television viewing was consonant with the pattern of interests they expressed in other areas of their lives. For example, men who liked hunting and the outdoors tended to view nature documentaries; people interested in their investments watched financially-oriented programs, adolescent males watched programs that mocked older authority figures or featured high-status adolescent heroes. These findings are quite in keeping with intuitive expectations. Relevant to the present discussion of fantasy were the study's findings regarding respondents' ratings of their various reasons for TV use and needs it filled for them. Persons who rated "strengthening of family ties" as a salient reason for media use tended to view family dramas (e.g. The Waltons), people who rated "escape from problems" as a prominent reason tended to prefer fantastic science fiction programs (e.g. Wonder Woman) (Frank & Greenberg, 1980). Their findings suggest a quadrant #1 or #2 model of the fantasy life-media use relationship. To the extent that we can assume interests and needs are active as "current concerns" in fantasy and daydreams, this study would suggest TV viewing is selective and parallels fantasizing, for example, a need to strengthen family ties would be correlated with both viewing The Waltons and with active thoughts about one's family. On the contrary, both the motive of strengthening family ties and the viewing of family dramas could be linked to a fantasy life with prominent fears of inadequacy as a parent and guilt over not spending enough time with the

family. In a quadrant #2 model, it could be argued that (to the extent that media use substitutes for one's own fantasies) viewing is selective and negatively correlated with fantasizing about certain themes. For example, a person who reports using TV to escape from problems and likes to watch fantastic escapist fiction might not have fantastic escapist self-produced fantasies. Or, to continue with the example begun above, viewing of family programs might be a substitute for other family-related thoughts or activities that might more directly facilitate family closeness.

The Frank & Greenberg (1980) study argues persuasively for a content-relevant (quadrant #1 or #2) formulation of fantasy and media use however, rather than a content-irrelevant (quadrant #3 or #4) model.

Fantasy participation with the medium is also stressed in this model, since it defines a subset of media consumption that is accompanied by high levels of fantasizing. Particularly moving experiences with media are possible in this manner, as the person brings her/his imaginal capacities into play to elaborate upon the theme of the material presented by the medium.

Both Jerome and Dorothy Singer have mourned the cancellation of Mister Rogers' Neighbourhood, a slow-paced television program which generated both loyal, heavy viewing and active fantasizing about the topics presented by the central character while viewing (J. Singer & D. Singer, 1979). They contrast this program with other fast-paced children's programs which do not encourage imaginal participation and

which, they fear, substitute for active fantasizing. They have demonstrated that viewing Mister Rogers' Neighbourhood can increase imaginativeness of play and result in greater learning from television, as compared with the rapid-fire bombardment of shows such as Sesame Street which has actually been shown to decrease subsequent imaginative play in viewers (J. Singer & D. Singer, 1979; Tower, D. Singer, J. Singer & Biggs, 1979).

Print and radio, because they provide fewer ready-made images than television, have been considered particularly conducive to imaginal participation (J. Singer, 1980). Print, because it is more self-paced, has also been considered more likely than TV to provide opportunities for imaginal participation with media, and a true vicarious experience.

Catharsis, through media experiences, is thought to operate in this manner. There was a persistent tendency in the early aggression-catharsis literature on television to equate TV viewing with fantasizing. Studies have shown these are very different behaviours (D. Singer & J. Singer, 1977; J. Singer, 1980; Winn, 1977). In addition, general TV viewing, especially of violent and action shows, has been shown to relate strongly to aggressive behaviour in preschoolers (J. Singer & D. Singer, 1979). It has subsequently been established that the essential ingredient enabling persons to reduce aggressive mood or impulses through media use is fantasy ability (Biblow, 1973; Feshbach, 1976; Klinger, 1971; J. Singer, 1966, 1970). It has been shown that high-fantasy children can reduce aggressiveness by imaginal participa-

tion in nonaggressive films (Biblow, 1973). J. Singer has suggested the mechanism of catharsis consists in changing one's mood by switching the internal environment to a more pleasant one through fantasy (J. Singer, 1970). Catharsis appears, therefore, to be much more a function of fantasizing than of media use, however one of the fantasy behaviours that can be used for catharsis is certainly imaginal participation in relevant aggressive media contents.

Behaviourally, the heavy media-user who is also a heavy fantasizer can be described as experience-seeking and exploratory. In their study of inner life and drug use, Segal, Huba & J. Singer (1980) reported that moderate alcohol and marijuana users:

who seek out new and novel environments
to experience and comprehend will also tend
to daydream more frequently as well as
become engrossed in their daydreams...
a general personality dimension of seeking
many varied experiences in the external
environment is linked to an inner experi-
ence dimension of many experiences. (Segal,
Huba & J. Singer, 1980, p. 177)

Such a rationale can be extended rather easily to broad experience-seeking through media coupled with an active inner fantasy life .

Jerome Singer has also argued that fantasy can serve rehearsal functions, helping individuals prepare for as yet not encountered situ-

ations (J. Singer, 1975, 1975b). To the extent that the individual participates imaginably in the modelled behaviour of media characters, media use can facilitate this rehearsal. As an illustration, studies by Lazarus & Bienlein (1967) and Kilguss (1974) have demonstrated effective use of soap operas in psychotherapy as a technique for building group cohesiveness and encouraging emotive self-disclosure through vicarious identification with television characters' problems. Caughey (1978) suggested that people may have a variety of intense fantasy relationships (lover, enemy, surrogate parent or advisor, role-ideal) with frequently-viewed television characters. Recently, the shootings of John Lennon and Ronald Reagan have illustrated the pathological intensity such fantasy relationships with media figures can reach.

Whetmore (1976) related scores on the Bem Sex-Role Inventory to TV character preferences. High Masculine subjects preferred male characters, while High Feminine subjects preferred female characters. Androgynous persons showed no differential preference for TV characters of either gender.

A study by Prisuta (1979) found that television sports viewing was a significant predictor of high school students' authoritarianism, nationalism, conservatism and their orientation toward need-determined expression ("situational ethics") rather than value-based restraint. He argued that these characteristics are all strongly represented in televised sports and that they may reflect or influence viewers' own values.



A study by Perrow (1968) found that TV viewers generally liked to watch characters whose personality traits were rated as similar to their own, and that less-preferred characters were rated as more dissimilar to the viewers. Both persons liking and disliking a given character were in substantial agreement on that character's traits, suggesting that selective viewing rather than projection was at work here. A study of viewers of the TV program All In The Family revealed the dismaying conclusion that rather than seeing the program as a satire on Archie Bunker's bigotry, viewers agreed with Archie and endorsed his positions (Vidmar & Rokeach, 1974). All these studies suggest that consumers are drawn to media materials that reflect their own preoccupations and to characters that represent "organized subselves" (Klinger, 1971) of themselves.

Further support for the model of media contents directly expressive of current concerns, with both high fantasizing and heavy viewing, comes from the reports of Gerbner & Gross (1974) who reported that persons who viewed a lot of television violence were more likely than low-violence viewers to overestimate their personal probability of being victimized by violent crime, and to be more fearful of this. This study sparked a lively debate since the authors argued from this correlation that violence viewing caused a preoccupation with vulnerability to victimization. The opposite position, that anxiety and fearfulness lead to heavy viewing of TV violence, has been argued by Zillman (1980). Bryant, Carveth & Brown (1981) demonstrated that required viewing of

violent action shows increased fears of victimization in college students. Initial high anxiety was also predictive of fears of victimization, but the interaction of anxiety level and viewing condition was not significant. Initially high-anxious subjects became more anxious after viewing, and low-anxious subjects became less anxious. Both groups were made considerably more anxious by a TV diet of programs in which justice did not eventually triumph. Heavy exposure to violent programs in which justice was served resulted in greater voluntary viewing of such programs for both high-and low-anxious students following the study (Bryant et. al., 1981). These data on assigned TV viewing do not greatly illuminate the issue of greater voluntary selection of violent fare by persons highest in fear of victimization. Nor do the data of Doob & MacDonald (1979) showing that the relationship disappears when one controls for the actual level of violent crime in the respondents' neighbourhoods. The question still remains why persons, who for whatever reason are highly fearful of violence, choose to watch so much of it on television. Why do they not switch the channel to innocuous programs? Perhaps the depictions of justice triumphing over evil serve a reassuring function (Bryant et. al., 1981).

Further evidence of approach through both fantasy and media to current concern-related material of an unpleasant nature was provided by a study by Boyanowsky, Newtonson & Walster (1974). They conducted a naturalistic experiment capitalizing on the murder of a female college student in Madison, Wisconsin, and reported that, following the crime,

attendance at a grisly murder movie increased greatly (89%) while attendance at a more benign film across the street declined slightly.

The authors suggested that:

given safe conditions of exposure, individuals in a state of heightened fear will show preference for a stimulus situation containing an event or object representative of the real source of their fear. (Boyanowsky et. al., 1974, p. 34)

They argue that attendance at horror movies serves a similar counter-phobic function, that of producing a sense of mastery in the viewers through their vicarious confrontation of fear situations, in the safe environment of the cinema.

Clearly, an argument can be made that media use serves a "direct expression" function, reflecting both in quantity and contents consumed the individual's current concerns. The notion that persons will seek out external fantasy depictions of feared objects suggests that lawful relationships between a person's current concerns and the sorts of external fantasy or vicarious experience content consumed may exist in a manner similar to the relationships adduced between current concerns and self-generated fantasy contents (Klinger, 1971). Bettelheim (1976), Emery (1959) and Wolfenstein (1978) suggested that children's interest in and preference for different stories is a function of the sorts of conflicts and issues currently occupying them.

An important caveat to the Boyanowsky et. al. (1974) study described above was the finding that women from the murder victim's dormitory preferred the scary movie, but only when the murder was a week old. Presumably, while their current concerns and fantasies regarding violence were too intense, they sought to avoid media depictions of violence (quadrant #2 model). Strength and other parameters of the current concern likely exert modifying effects on the hypothesized approach tendency.

A one year study of three-and four-year-olds (J. Singer & D. Singer, 1978, 1979) has some relevance to the quadrant #1 model and others as well. Although the study dealt primarily with TV viewing and aggression, data on rated imaginativeness of play and imaginal predisposition (based on inkblot responses and interviews of parents and children about imaginative play and imaginary playmates) were presented.

Viewing of action-adventure programs correlated .33 with aggressive behaviour in nursery school. High aggressive-high TV children and high aggressive-low TV children both showed a preference for action-adventure programs. The high aggression-low TV children spent a larger proportion of their limited viewing time watching this sort of show than did low TV children who were low in aggression. This suggests a preference for violent TV by aggressive children, such as that reported by Haynes (1975) for fifth and sixth-graders.

Cross-lag correlation analysis of viewing and aggression at different times over the studied year persuaded the Singers to rule out:

the easy explanation that aggressive children prefer action TV shows and that this preferential viewing tendency is sufficient to explain our correlations...If anything, the trend does suggest that it is the TV viewing pattern which is more likely to be linked to later aggressive behaviour. (J. Singer & D. Singer, 1979, p. 15)

Although aggression in all groups increased over the year, the rate of increase was highest for both high TV groups.

It is not clear from these data whether the hypothesized effect of violent TV viewing on aggression includes increases in aggressive fantasy or make-believe aggression in play. Factor analytic results suggest that in this study, imaginativeness was negatively correlated with action-adventure viewing. The content and tone of fantasy play was unspecified, but dysphoric moods and aggression were observed. Changes in imaginativeness of play over time were not reported.

A quadrant #1 model was not ruled out by some of the other findings in this study. The low aggression-high TV group was by far the most imaginative. Although they watched a wide variety of programs with considerable freedom, their proportion of viewing educational programs was high. It was suggested that it was this content, plus a greater variety of family activities and interests other than TV, which differ-

entiated these children from the high aggressive-high TV group members. Clearly, however, sheer quantity of viewing is not related to imaginativeness in a simple linear inverse manner, and contents viewed seem to have some relation to fantasy ability. Another finding, in factor analysis, was that cartoon viewing loaded positively on a dimension of "Expressive Play" suggesting that children who view more fantastic and unreal programs are more likely to add fantastic and unreal components to their own play.

The Singers concluded that:

Imaginativeness of Play in the nursery shows relatively little relationship to the pattern or frequency of television viewing...the best we can say is that children who play imaginatively are somewhat more likely to be watching what might be termed the more "benign" programming...and do not appear to be especially watchers of the more active "hyped up" shows...These results are, however, not tremendously impressive by any means and the hypothesized inverse link between imaginativeness, television-viewing patterns and aggression cannot really be supported from our data based on ongoing play. (J. Singer & D. Singer, 1978, p. 26)

Note that in the above quotation the Singers consider the quadrant #4 model (heavy content-irrelevant viewing and low fantasizing) not supported, though this has been suggested by some as a mediator of TV aggression effects.

Rosenfeld (1978) has conceptualized children's fantasy as a multi-dimensional group of processes including both fanciful imaginings and less-positive worries and hostile imagery. She has also demonstrated a strong correlation between children's self-reports of aggressive fantasies and measures of their aggressive behaviour. Conceptualizing the aggressive child as a "low-fantasy" child ignores the multidimensional nature of children's fantasizing.

In summary, quadrant #1 reflects the view of several theorists, supported by some data, that media use is sometimes a direct expression of current concerns, and that high levels of media use can accompany (and not necessarily replace) high levels of relevant fantasizing.

Quadrant #2 represents the view that current concerns can give rise to high levels of fantasizing accompanied by low levels of concern-related media use, or that current concerns can lead to high levels of related media use with low levels of fantasizing. Fantasizing and media use are seen as reciprocal processes in this model, and it may be that persons low in fantasy ability turn to media more than persons with greater imaginal skill. The central thesis of this position is that using media can replace fantasizing, at least in some content areas. Circumstances other than fantasy capacity may also determine

the use of one's own fantasies or relevant media contents in various situations.

The dormitory-mates of the murder victim in the study by Boyanowsky, Newton & Walster (1974) described above, showed this type of pattern following the murder. Presumably, fear of violence was a highly salient current concern of theirs in fantasy, but they actively avoided film depictions of violence at that time.

Uses of media in this quadrant follow a "substitute expression" model (Klinger, 1971). An example might be a housewife who avoids and denies fears of the deterioration of her marriage through absorption in televised "soap operas", preferring media depictions of these problems to her own thoughts about them.

Jerome Singer has suggested that magazine erotica may function in this manner, stimulating masturbatory fantasies in individuals whose own capacities for producing sexual fantasies are deficient (J. Singer, 1975b).

Earlier models of catharsis (Feshbach, 1972) held that simply viewing aggressive films or TV programs could provide a substitutive "fantasy" experience that would reduce aggressive drive and lower subsequent aggressive behaviour. Feshbach (1972) reported that:

boys who were initially low in aggressive
fantasy (as assessed by a TAT-type measure)
displayed less aggression in the aggressive
television condition than in the control con-

dition, while a much weaker effect was observed for boys initially high in aggressive fantasy. These data suggest the possibility that fantasy expression of aggression serves as a means of "controlling" overt aggressive expression, and that boys who lack internalized fantasy resources may utilize the external fantasy of aggressive television content for this purpose.

(Feshbach, 1972, p. 320)

We do not know from Feshbach's report whether his subjects were low or high in other types of fantasy ability aside from aggressive fantasizing. The dependence of the cathartic effect on fantasizing ability rather than on media material has been discussed in regard to quadrant #1, above. Angry high-fantasy individuals may be able to use their own imaginal capabilities or a variety of media materials to change their moods, while angry low-fantasy individuals may seek out concern-relevant (i.e. aggressive) media depictions (Friedman & Newton, 1975, Haynes, 1975) but obtain little cathartic benefit from them. This latter group illustrates the combination of high media use and low fantasizing in concern-relevant topic areas.

Quadrant #2 essentially represents the case in which one uses media materials (vicarious fantasies) as a replacement for one's own (self-produced) fantasies about a given topic or current concern.

Quadrant #3 of Table 1 differs from quadrants #1 and #2 by focussing on consumption of media contents that are irrelevant to or unrelated to current concerns. Such content is likely sought out specifically as distraction from one's own current concerns or as "escape" via media; the more removed from current concerns the better. Quadrant #3 is defined by consumption from media of high levels of such concern-irrelevant content by persons high in self-produced fantasies of their own. In this model, current concerns are expressed in fantasy but media use is a distraction from or competition with concern-related (and usually unpleasant) fantasizing. Irrelevant media material is increasingly sought out and consumed as current concern-related fantasies increase.

An example illustrating the theories of quadrant #3 arises from the work of Segal, Huba & J. Singer (1980) on drug use and private personality among college students. Their results showed that heavy substance-abusers were higher in negative, ruminative, dysphoric fantasies. Multiple substance abuse, serious risk-taking and impulsive "stimulus hunger" behaviours of these individuals were seen as attempts to "drown out" negative fantasies and thoughts, and these behaviours increased as the fantasies became more frequent and strong. An alcohol and drug-supported sense of competency may be sought out as an antidote to such a negative fantasy life and fears of failure. The hypothesized mechanism underlying this model is that these individuals seek out high levels of external stimulation to drown out high levels of

dysphoric fantasy. The ability of perceptual stimuli to compete with and block inner imagery within the same sensory modality has been well documented (Antrobus, J. Singer, Goldstein & Fortgang, 1970; Brooks, 1968; Fusella, 1972; J. Singer, 1974). An unpublished study by Vanderbeck and Antrobus (cited by J. Singer in K. Pope and J. Singer, 1978) reported that when individuals whose initial mood was elated or depressed performed highly-demanding signal-detection tasks that largely prevented them from attending to their own thoughts, the level of their prior mood was considerably reduced.

J. Singer has tended to explain the public's use of television in a similar manner:

If TV has a potential addictive power it arises from the fact that it reduces negative affect...by substituting someone else's thoughts for your own... It is simply the easiest, most nondemanding resource ever available for shifting one's attention away from one's miseries. (J. Singer, 1980, p. 49-50)

J. Singer has likened the heavy indiscriminate viewing of television to the compulsive sensation-seeking seen in adult substance-abusers (J. Singer, 1977). He has emphasized the rapid pace of stimulus bombardment and the flicker of the TV screen as important in generating orienting responses and holding the attention of the viewer. Television is the ideal medium to drown out one's own fantasies precisely be-

cause it is so "hot" (McLuhan, 1964) and so stimulating (J. Singer, 1980). This model has not been applied to radio or print consumption so far.

Other studies have reported an association between high levels of TV viewing and negative cognitive-affective states. Hazard (1967) found that more highly anxious persons were heavier viewers of fantasy television fare and suggested it was because they were lower in social participation. Philport (1975) found that individuals who watched more television and read fewer books and magazines were more likely to be alienated, less-educated, and of lower socioeconomic class. Viewers of a subset of popular comedy and action-adventure programs were more alienated than were viewers of family dramas, as measured by the Anomia scale. Gutman (1973) reported that women who watched the most television had the most negative self-concepts.

The Quadrant #3 model is supported by a study by Dotan & Cohen (1976) of the radio, television and print media use patterns of Israeli housewives during and after the 1973 Middle East War. During both war and peace, radio listening was positively correlated with informational needs. Television viewing was positively correlated during peacetime with informational needs, but during wartime with needs to kill time, to escape reality, and to overcome loneliness, and was negatively correlated with informational needs. As presumably their current concerns changed, these women's patterns of media use, as well as what they said they used each medium for, changed too. Increased use of TV as escape

at times of increased concern over the war is a dramatic within-subjects illustration of the distraction-competition model of quadrant #3.

Rosenblatt & Cunningham (1976) found that amount of family members' viewing of TV was related to the level of family tensions. They suggested that TV use was a way to avoid tense interactions, particularly in crowded households where spatial separation was not an available avoidance tactic.

Quadrant #4 of Table 1 describes the state in which media contents unrelated to current concerns are consumed in inverse proportion to the person's own fantasizing. Media contents are not selectively chosen on the basis of one's current concerns but, as in quadrant #3, are chosen simply for stimulus value. The difference between quadrant #3 and quadrant #4 is that media contents substitute for rather than compete with or drown out one's own fantasies. This model sees media use as a passive and indiscriminate substitution of external stimulation for inner fantasy. While persons in the quadrant #3 model were seen to use media to drown out too-high levels of their own fantasies, persons in quadrant #4 use media as a prosthetic replacement for too-low levels of their own fantasies. Media represent a vicarious and mass-produced fantasy life.

As usual, greater concern has been raised about the television medium functioning in this manner. In The Plug-In Drug (1977) Marie Winn argued that television content is not relevant to examine in

investigating effects of TV viewing on children. Rather, she suggested, the act of watching television is harmful in that it reinforces passivity and dependence upon external stimulation, thereby preventing the development and nurturance of other family resources.

The oft-voiced concern about children's television viewing is that this activity may replace other forms of family interaction (Winn, 1977) or that TV will:

simply pre-empt play and, indeed, the habit of play, and remove a resource that could be of great value to the child...The viewing experience may be training us to expect such externally-generated fantasies.

(J. Singer, 1977, p. 24)

Research findings have been far from overwhelming in support of this view that heavy TV watching is negatively correlated with imaginativeness in children (J. Singer & D. Singer, 1978), however it has been reported that heavier television viewing children have fewer imaginary playmates (Caldeira, J. Singer & D. Singer, 1978) and are less creative on some tests of alternative uses for objects (Harrison, 1977; Meline, 1976). At present, the Quadrant #4 model must be regarded as a very popular hypothesis which still is awaiting more solid empirical support.

J. Singer blames the rapid-paced presentation of material for both TV's attraction and its presumed detrimental effects on imagination.

The constant change and novelty on the screen, as well as its flicker, serve to maintain attention to the set. "Viewing itself is an effect of television" (Comstock, 1975, p. 26). Because TV trains people to watch it there is little time to replay or elaborate on material presented, such as is available in self-paced media such as print (J. Singer, 1980).

Certainly, television provides a wealth of content but the danger seems to be that the rapid-paced format and piling up of material on the medium may actually preclude much effective practice of imaginative capacities in a child. (J. Singer, 1979, p. 23)

Sesame Street, with its shifts in content paced faster than a child can assimilate and fantasize along with, and its tendency to elicit loyal, heavy viewing without active fantasizing, would be classified as a quadrant #4 media use experience. Jerome and Dorothy Singer have reported that viewing of Sesame Street actually produced decreases in the imaginativeness of children's play (J. Singer & D. Singer, 1979; Tower, D. Singer, J. Singer & Biggs, 1979). Youngsters who watch Sesame Street re-runs that they can nearly recite from memory may merely be escaping from boredom brought on by the underdevelopment of their own abilities to fantasize and entertain themselves in play. The value of Sesame Street's highly-stimulating format lies in the fact that it holds children's attention for extended periods of repetitious

rote drill of numbers and letters. The program does not appear to have beneficial effects on fantasy life development, however.

Csikszentmihalyi (1975) believes that fantasy or daydream activity will not occur when the individual's behavioural capacities are well-matched to the external demands or action opportunities. Under such "flow" conditions, the person will not be aware of the stream of consciousness. When situational demands exceed abilities, the individual will experience a state of anxiety or worry. Boredom results when the individual's abilities exceed the demands of the environment or the opportunities for action, and the individual will become aware of the stream of consciousness as a supplementary source of stimulation. Persons unable to maintain optimal levels of stimulation through inner imagery may be prone to seek external stimulation as an antidote to boredom. The quadrant #4 model postulates a self-perpetuating cycle of television use, fantasy underdevelopment, boredom, and further television use.

One striking feature of much TV viewing is the low level of post-viewing recall of material seen. It has been argued that television is primarily a right-hemisphere activity, and that the left hemisphere is only engaged at points of major content shifts, or when detailed attention is necessary (Krugman, 1980).

Left-brain attention, though much more accurate than right-brain attention... quickly tires, while right-brain at-

tention, though somewhat less accurate, shows almost no fatigue. (Dimond & Beaumont, 1973, p. 264)

Further support for this view is the finding of high levels of recognition memory for material seen even briefly, though unprompted recall is very poor (J. Singer, 1980) since there has been little opportunity for left-brain rehearsal, verbal labelling and encoding of new inputs. The trance-like state of TV viewers has been commented on with alarm by Winn (1977).

J. Singer (1980) has predicted that children who read extensively should be more adept fantasizers than low-print, high-TV children; so far only the relationship between being read to by parents and imaginativeness has been documented (J. Singer & D. Singer, 1979). The hypothesized detrimental effects of TV viewing on language development have not been observed, although a link between imaginativeness and language skill has been found as hypothesized (D. Singer, Caldeira & J. Singer, 1977) with more-imaginative children using more words in longer and more complex statements than less-imaginative children.

Rather than regarding children's fantasizing as a unidimensional construct, Rosenfeld (1978) attempted a finer-grained analysis of six- to eight-year-olds' fantasy contents using the Imaginal Processes Inventory for Children (IPI-C). Frequency of TV viewing, (based on children's verbal responses to a list of program names) and violence viewing were positively correlated with fantasy frequency. This ap-

parent contradiction of theoretical expectations is likely unreliable, however. The author noted that substantial "method variance" due to an impulsive positive response bias likely accounted for substantial correlations between the IPI-C Fantasy Frequency scale and all other similarly administered measures. Partialling out the Frequency scale, only very small and inconsistent correlations between the fantasy scales and TV measures remained. The Negative fantasy scale of the IPI-C correlated positively with amount of TV viewing for boys, and the Action fantasies scale correlated positively with amount of girls' TV viewing, TV violence viewing, and belief in the realism of TV.

The author noted:

the relationship between the content of self-generated fantasy such as dreams and daydreams, and television violence viewing is a complex one, which may be impossible to answer in a correlational study (Rosenfeld, 1978, p. 123)

Although the data regarding the relationship of media contents to fantasy contents are sparse and unclear, the negative correlation between fantasizing and TV viewing has received some small support. One unfortunate consequence predictable from the quadrant #4 model is that children whose own fantasy skills never develop sufficiently to entertain or distract them continue, as adults, to remain dependent upon the electronic drug to relieve boredom or (as described in quadrant

#3) for relief from unpleasant inner states, unfinished business, and ruminative fantasies.

Choice of Medium

Individuals' and groups' choices of medium have been studied by some.

Anast (1966) demonstrated the relationship of an intuitive personality style to preference for more participatory media such as books rather than the more passive media such as television and films, which were preferred by sensory types, in Jungian typology. McLuhan (1964) has made a similar distinction between "hot" media such as television and "cool" media such as print and radio, requiring greater imaginal participation.

Helmreich studied media-specific effects of radio and television presentations of the same content and found both amount of learning and speed of forgetting of the information were independent of the medium on which it was presented. However, the emotional reaction to the program was medium-dependent, with radio listeners becoming more involved, feeling the program to be more exciting, agreeable and powerful than did TV viewers of the same content. These differences in emotional reaction persisted even after the content had been considerably forgotten (Helmreich, 1976).

Urban (1980) found that magazine readers are much more inner-directed than other-directed.

Recent evidence suggests that high TV users and high print users

differ in many demographic and attitudinal variables:

HIPRINT members are self-confident, involved, change-oriented moderns; HITV persons are uninvolved, change-resistant traditionalists...members of the electronic class tend to be younger...while members of the print class tend to be older...the data also reveal a lower educational level for members of the HITV class. (Crask & Reynolds, 1980, p. 50)

Frank & Greenberg (1980) have reported detailed findings on the book, movie, newspaper and radio use correlates of groups of television viewers from 14 age, sex, and interest segments of their large sample. Their clear and authoritative findings generally support a quadrant #1 model of interests across media for relevant content.

So far, no studies have been reported which relate daydreaming and fantasy styles, as measured by the Imaginal Processes Inventory, to patterns of adult media use and medium choice. Individuals with various fantasy styles may use media in any or all of the ways described by the abovementioned four models, at one time or another.

Purposes of This Research

This Dissertation reports on two separate studies relevant to the relationship between fantasy and media use.

The Adult Study, with a large sample of adults, sought to determine

the extent to which use of a variety of television, radio and print contents could be predicted from fantasy style measures. The study tried to determine whether inner fantasy life measures predicted the amount of external media stimulation sought, and the medium through which it was obtained. The study also attempted to discover whether media contents consumed were related to individuals' usual fantasy content themes in a "direct expression" or "substitutive expression" model, or were thematically unrelated in content. The relationship of sex-role to both fantasy styles and media use patterns was also examined.

The Child Study, with a smaller sample of children, and two Pilot Studies, examined the relationships between children's fantasy and day-dreaming styles and their television viewing patterns. The design sought to overcome methodological and measurement difficulties of previous research in this area. Radio and print are much less discretionary media for young children, and were not examined in the Child Study.

The data of these studies are discussed within the content and process classification system developed above.

The research described below represented an attempt to describe some reliable relationships between imaginal processes and differential consumption of media materials, using multivariate descriptive statistics. This initial exploration may well have generated more new hypotheses than it can provide empirical tests of at this descriptive level of analysis. If so, then the research has met one of its goals, in

pointing out directions for programmatic investigation of this interesting and important area.

ADULT STUDY

The Adult Study was a large-scale, broad exploratory investigation of adults' patterns of television, radio and print use, and the inner life variables of fantasy life and sex-role.

Method

Subjects

Five hundred and seven undergraduate students from summer Psychology classes at the University of Manitoba and University of Winnipeg served as the initial pool from which the final sample of 219 was derived. Sample selection procedures are described below.

Of the final sample, 44 were from the University of Winnipeg and 175 were from the University of Manitoba. One hundred and six were male, 113 were female. The subjects' ages ranged from 17 to 55 years, with a mean of 23.7 years.

University of Manitoba subjects received experimental credits toward their course grades in exchange for participation. University of Winnipeg subjects participated voluntarily during the first hour of a two-hour guest presentation on research into fantasy.

Instruments

Media Use Check List Media use was assessed by means of the Media Use Check List (MUCL), developed for this purpose by the author. It consisted of 21 pages, listing 414 television programs, 232 radio shows, and 101 magazines and newspaper sections. The television portion of the instrument was produced by listing all the English-language

programs (except for one-time specials, movies and advertisements) available on all cable and noncable television channels in Winnipeg in the two weeks before the commencement of data collection in May, 1979. Two TV Listings were used as a check against omission from the instrument of programs pre-empted one week due to special programming. Each program was listed only once.

The radio portion of the instrument consisted of a list of all the radio programs available on all stations with broadcasting facilities in the Winnipeg area. Program titles and descriptions were furnished by the radio stations. There were a total of 232 radio shows listed. The television and radio listings thus were exhaustive compilations of all offerings in these two media.

A somewhat different procedure was followed in compiling the print portion of the MUCL. Each section of the city's two daily newspapers was listed separately and a sample of 87 magazine titles was collected from the magazine sections of the University of Manitoba bookstore, an area grocery store and a convenience store, for a total of 101 print entries. Thus, there was no attempt to produce an exhaustive list of available print materials. A copy of the MUCL is appended (see Appendix I).

The format of the MUCL is a three-alternative checklist, requiring respondents to indicate for each entry whether they regularly or always viewed/listened/read (2), occasionally or sometimes viewed/listened/read (1), or never viewed/listened/read (0). For more rapid

administration, entries rated zero could be simply left blank.

Two research assistants, one male and one female, performed a content analysis of the MUCL, categorizing the offerings in all three media into eight content categories defined by the author. These content categories were:

- 1) Interpersonal Information,
- 2) Impersonal Information,
- 3) Sport and Physical Activity,
- 4) Sexual-Romantic,
- 5) Musical,
- 6) Nonviolent Drama,
- 7) Violent Drama,
- 8) Humourous-Comedy.

Raters were provided with a manual of definitions and examples to guide their categorizations (see Appendix II), and received two training sessions in which they discussed the definitions and independently rated a small sample of TV, radio and print materials. Raters were instructed to assign media offerings to only one category wherever possible, or to a maximum of two where more than one type of content was strongly represented.

Inter-rater reliability was computed at two points: when the raters were approximately halfway through coding the MUCL, and again when they had completed coding all the materials that could be located by them. Substantial numbers of radio and television programs, can-

celled during the period between data collection and scoring, could not be located and categorized by the raters. Recourse to archival sources of information enabled them to categorize many of these programs. Archival sources of information included program descriptions in old TV Guides and radio listings, and transcriptions of verbal descriptions of program content by directors of programming at the broadcast stations involved.

Table 2 shows that inter-rater reliability (Cohen's kappa) for television program categorizations was .78 at the first probe, .89 at the second probe, and .80 for archival materials. Following each of the first two probes, raters met and debated to agreement on those programs on which they had disagreed. In some cases, they re-viewed the programs in order to reach agreement. Due to their academic schedules, 48 programs were rated by one rater only and these ratings were accepted on the basis of the high inter-rater reliabilities. Four entries in the television portion were found to be either duplicates or special programs that should have been excluded, and were discarded. Thirty-four TV programs finally eluded all efforts to determine their content, or were still disagreed upon after the archival coding stage. There being no further data available to resolve these remaining disagreements, they were included with programs not found. In all, 328 programs were coded in agreement by both raters, and an additional 48 were coded by one.

Table 3 shows that inter-rater reliability for radio programs

Table 2
 Inter-rater Reliabilities (Cohen's Kappa) for
 Categorizations of Television Contents--
 Media Use Check List

	<u>Agreed</u>	<u>Disagreed</u>	<u>%</u>	<u>kappa</u>	<u>Disagreements Resolved</u>
Halfway	152	34	82%	.78	27
Completion of Coding	89	9	91%	.89	9
Additional Archival Sources	51	10	84%	.80	
<hr/>					
	292 +				36 = 328
		Coded by one rater only			48
		Specials, duplicates eliminated			4
		Not found (* counted)			34
					<hr/>
					<u>414</u>

Table 3
 Inter-rater Reliabilities (Cohen's Kappa) for
 Categorizations of Radio Contents--
 Media Use Check List

	<u>Agreed</u>	<u>Disagreed</u>	<u>%</u>	<u>kappa</u>	<u>Disagreements Resolved</u>
Halfway	74	4	95%	.91	4
Completion of Coding	67	7	91%	.85	7
Additional Archival Sources	25	9	74%	.56	
<hr/>					
	166 +				11 = 177
		Coded by one rater only			37
		Not found (* counted)			18
					<u>232</u>

Table 4
 Inter-rater Reliabilities (Cohen's Kappa) for
 Categorizations of Print Contents--
 Media Use Check List

	<u>Agreed</u>	<u>Disagreed</u>	<u>%</u>	<u>kappa</u>	<u>Disagreements Resolved</u>
Halfway	43	10	81%	.75	8
Completion of Coding	29	6	83%	.76	6
Additional Archival Sources	5	0	100%	1.00	
<hr/>					
	77 +				14 = 91
					1
					<u>7</u>
					<u>2</u>
					<u>101</u>

was .91 at the first probe, .85 at the second, and only .56 for categorizations based on archival information. Disagreements were resolved by debate after each of the first two probes. Disagreements based on archival data were included with programs not found for a total of 18 not categorized. In total, 177 radio programs were categorized in agreement by both raters and 37 more, rated by only one rater, were accepted on the basis of the high inter-rater reliabilities.

Table 4 shows that inter-rater reliability for print materials was .75 at the first probe, .76 at the second probe, and 1.00 for archivally-based categorizations. As for TV and radio, disagreements were settled by debate after each of the first two probes. A total of 91 print entries in the MUCL were coded in agreement by both raters, and one coded by only one was accepted. One of the city's two newspapers had ceased publication since the data were collected. Content codes assigned to sections of the other newspaper were simply assigned to equivalent sections of the now-defunct paper. Two magazines were not found or categorized.

Television programs, radio shows and magazines not found or categorized were counted during the scoring of the MUCL. Those counted items with nonzero response frequencies are listed in Appendix III.

In summary, the contents of the MUCL were categorized by content with a high degree of reliability. In all cases, percentage agreements were higher than kappa coefficients, since the latter correct for chance agreement due to use of some categories more than others (Cohen,

1960).

This content analytic procedure resulted in an after-the-fact production of an instrument with eight non-orthogonal content scales for each of the three media. In actuality, there were only a total of 22 rather than 24 medium X content categories, since no radio programs were classified as Radio 4 (Sexual-Romantic Radio) or Radio 6 (Nonviolent Radio Drama). The MUCL thus yielded for each subject, a weighted (0, 1, 2 X the number of programs on the subscale) score for each of 22 types of media content use scales.

The final categorizations for each entry in the MUCL are listed in Appendix IV.

Test-retest stability of scores on the 22 MUCL subscales was computed from a sample of 27 undergraduates who completed the MUCL on two occasions, two weeks apart. Reliability coefficients (see Table 5) ranged from .74 to 1.00, except for the Radio Sports category, which was found to be much less stable ($r = .40$), possibly due to special sporting events. With this one exception, the instrument appears to be quite highly temporally stable.

Imaginal Processes Inventory The Imaginal Processes Inventory (IPI) (J. Singer & Antrobus, 1970) is a paper and pencil self-report measure of frequency of daydreaming and fantasizing, the form and content of daydreams and fantasies, and respondents' reactions to them. The instrument has 28 subscales, each of which has twelve items, except for the Absorption in Daydreaming scale which has 20 items.

Table 5
Two-Week Test-Retest Reliabilities of
Media Use Check List Content Categories

	TV	RADIO	PRINT
1. Interpersonal Information	.83	.86	.90
2. Impersonal Information	.88	.76	.88
3. Sports & Physical Activity	.94	.40	.86
4. Sexual-Romantic	.74	***	.86
5. Musical	.81	.97	---
6. Nonviolent Drama	.83	***	1.00
7. Violent Drama	.86	---	---
8. Humorous	.95	.76	.81

*** No programs were categorized as Radio 4 or Radio 6; these categories had zero frequencies.

--- Too few for computation in the test-retest sample.

Internal consistency of the scales is high. J. Singer & Antrobus (1972) reported that Cronbach's alpha fell below .75 for only three of the scales, and for the rest was above .80. Giambra (1977) reported test-retest reliabilities for the IPI over a one-to two-year period averaging .83. Individual scale reliabilities over this period of time ranged from .47 to .84; all were significant.

Factor analyses of the IPI (Giambra, 1977, 1977-78; J. Singer & Antrobus, 1972) have repeatedly revealed a stable underlying factor structure.

Two modifications to the IPI were made for this study. In order to ensure that it could be completed by most subjects within an hour, five subscales less relevant to the present research questions were omitted from the instrument (Night Dream Frequency, Self-Reporting Tendencies, Past, Present, and Future Orientation in Daydreaming). Twenty-three subscales were retained.

To facilitate scoring, the questions on the IPI were re-numbered to correspond to the rows of computerized answer sheets, and the instructions were modified accordingly. Questions numbered from 1 to 160, then subjects were instructed to begin on a second computer sheet and questions began numbering again from 1 to 124, the end of the instrument. The same five-point response alternatives were used.

Personal Attributes Questionnaire The short form of the Personal Attributes Questionnaire (PAQ) (Spence & Helmreich, 1978; Spence, Helmreich & Stapp, 1975) was employed as a measure of sex-role. The

three eight-item subscales of the short form (Masculinity, Femininity, M-F) correlate .93, .93, and .91 respectively with the long form. Cronbach's alphas for the three subscales are .85, .82, and .78 (Spence & Helmreich, 1978). The PAQ has 24 pairs of opposite descriptors, with respondents indicating their perceived similarity to either pole on a five-alternative scale. The Masculinity and Femininity subscales utilize positive descriptors while the M-F subscale taps less-positively valued sex-role traits, and is scored in the masculine direction. A four-way median split based on the Masculinity and Femininity scales has been used to classify individuals as Masculine, Feminine, Androgynous or Undifferentiated in sex-role.

Procedure

Subjects were asked to fill out the Media Use Check List in their classes. Because of the quick response format, this procedure took only ten to 15 minutes of class time. Five hundred and seven MUCL's were administered in this fashion. The MUCL was anonymous, but respondents were requested to provide, on an attached cover sheet, their date and year of birth, gender, marital status, major in University, number of brothers and number of sisters. (The MUCL included in Appendix I has such a cover sheet). These items of information were later used to pair up each subjects' MUCL and IPI, though both were anonymous.

Several days to several weeks following administration of the MUCL, a different research assistant visited these classes, to sign up subjects for an ostensibly unrelated study. When they presented them-

selves for this experiment, they were requested to complete a cover sheet (differing in appearance from that used with the MUCL but requesting the same information), the IPI, and the PAQ. Respondents answered the IPI directly onto computerized examination forms. This was the procedure followed at University of Manitoba.

At University of Winnipeg, subjects completed the MUCL and face sheet in class exactly as at University of Manitoba. Several days to several weeks later, they were requested by a guest lecturer (the author) to participate in the study by filling out the IPI and PAQ. Those declining to participate adjourned for coffee, then returned for the second hour of their class which was a lecture dealing with research into fantasy.

All MUCL's and all IPI-PAQ packets were labelled by class. They were then matched within-class on the basis of the five demographic face sheet variables. Two hundred and thirty-two exact matches were achieved. Ten other questionable matches, with missing or conflicting information (e.g. listing the current year as the year of birth) were matched with perfect agreement by the author and an independent judge and accepted as being from the same individuals. There were, therefore, 242 data sets including MUCL, IPI and PAQ, identifiable as having been completed by the same person.

The reasons for this procedure were to attenuate demand characteristics or cross-instrument contamination that might have occurred if the media use and fantasy life instruments had been presented in

the same session or by the same experimenter. This procedure allowed for temporal separation and apparent unrelatedness of the instruments, while maintaining the anonymity essential for credible data.

Of the 242 matched sets, four subjects were eliminated for failure to complete the IPI fully, 14 were eliminated for failure to complete the PAQ, four for failure to complete the MUCL, and one subject was eliminated who returned both the IPI and PAQ in incomplete form. The final subject population was 219.

Data preparation Following the content categorization of the Media Use Check List, transparent scoring keys were prepared which listed the content code(s) of each entry in the MUCL. These overlays were placed on the appropriate pages of the MUCL and any media items rated "1" or "2" were assigned the item's content code in the margin. These codes were then totalled for the 22 medium-by-content categories, taking into account the response weights of "1" or "2". Each subject received a score for each of the eight types of television content, six types of radio content, and eight types of print content. These scores were punched onto cards.

A great saving of time was realized by having the IPI responses punched directly onto cards from the computerized answer sheets, using the optical scanning and examination correction facilities of the University of Manitoba Computer Centre. The IF and COMPUTE features of the SPSS computer program (Nie, Hull, Jenkins, Steinbrenner & Bent, 1970) were used to reverse the direction of negatively-keyed items

and to sum items into subscale scores.

The PAQ was hand-scored and punched onto cards, along with subjects' gender.

Results

Means and standard deviations for all measured variables are presented in Appendix V, both for the entire sample and for males and females separately. Appendix VI presents tables of the simple correlations between the Imaginal Processes Inventory and Personal Attributes Questionnaire predictor variables and use of the various television, radio, and print categories for males and females. The reader can consult these Appendices for more detailed clarification of the statistical findings presented below.

Because of the large numbers of predictor and criterion variables in this study, and the expectation of performing multiple analyses on these data, the alpha level for each individual significance test was pre-set at a stringent .001. No finding in the major planned analyses that does not reach this level of significance is reported here. Subsequent post-hoc regression analyses, with a considerably relaxed alpha level and resultantly diminished statistical reliability, are reported in a later section for heuristic purposes only.

Four types of analyses are reported here: 1) sex and sex-role-related patterns of fantasy, 2) fantasy styles and their relationship to overall media use patterns or "media diets" across all three media, 3) separate analyses within each of the three media, relating fantasy and sex-role measures to types of content consumed within each, and 4) post-hoc multiple regression analyses examining the correlates of use of each individual type of media offering, separately for men

and women.

Sex, Sex-Role and Fantasy Style

The 113 females and 106 males were divided by median splits into eight groups: Masculine Males ($\underline{n} = 30$), Feminine Males ($\underline{n} = 15$), Androgynous Males ($\underline{n} = 26$), and Undifferentiated Males ($\underline{n} = 35$), Masculine Females ($\underline{n} = 14$), Feminine Females ($\underline{n} = 38$), Androgynous Females ($\underline{n} = 35$), and Undifferentiated Females ($\underline{n} = 26$).

Discriminant analysis of these data was performed using the SPSS DISCRIMINANT program, set to minimize Wilks' lambda. This procedure maximizes the multivariate F ratio for the test of differences among group centroids (Nie et. al., 1970).

The first three discriminant functions accounted for 85% of the variance in differences among the eight groups (see Table 6). The first two discriminant functions were highly significant.

The first discriminant function had a canonical correlation of $+0.652$ with the IPI fantasy variable composite. Correlations between the individual discriminating variables and the first two discriminant functions are presented in Table 7. These structure coefficients are less ambiguously interpretable than the standardized discriminant function coefficients (Borgen & Selig, 1978). For ease of exposition, the signs of the structure coefficients for the first two discriminant functions have been reversed, so that evaluatively "positive" fantasy variables are represented by positive correlations with the functions

Table 6
 Canonical Discriminant Functions for Fantasy Measures
 Of Eight Sex-by-Sex-Role Groups

Function	Eigenvalue	Percent of Variation	Canonical Correlation	Wilks' lambda	d.f.	Significance
1.	0.738	53.31%	.652	.316	91	0.0000
2.	0.238	17.20	.439	.550	72	0.0001
3.	0.206	14.91	.414	.681	55	0.0166
4.	0.085	6.15	.280	.822	40	0.4408
5.	0.057	4.12	.232	.892	27	0.6459
6.	0.034	2.47	.182	.943	16	.7305
7.	0.025	1.84	.157	.975	7	.6342

Table 7

Pooled Within-Groups Correlations Between Canonical
Discriminant Functions and Discriminating Variables
For Eight Sex-by-Sex-Role Groups

Imaginal Processes		
Inventory Scales	Function #1	Function #2
Mechanical Curiosity	-.599	-.063
Mindwandering	.276	-.098
Daydream Frequency	.229	.117
Distractibility	.200	-.086
Hostile-Aggressive	-.215	-.428
Acceptance	.092	.377
Need for Stimulation	-.059	.119
Heroic	-.239	-.255
Sexual	-.034	.330
Bizarre-Improbable	-.091	-.183
Boredom	.028	-.239
Positive Reactions	.103	.298
Frightened Reactions	.185	-.265
Visual Imagery	.177	.224
Auditory Imagery	.084	.269
Hallucinatory-Vividness	.010	-.058
Guilty	-.215	-.343
Absorption	.317	.064
Achievement	-.054	-.057
Problem-Solving	-.065	.260
Fear of Failure	-.103	-.284
Mentation Rate	.080	.076
Interpersonal Curiosity	.363	.040

Table 8
Sex-by-Sex-Role Group Centroids For
The First Two Discriminant Functions

Group	Function #1	Function #2
Masculine Males	-1.066	.088
Feminine Males	-.409	.215
Androgynous Males	-.793	.501
Undifferentiated Males	-.741	-.450
Masculine Females	.493	-.023
Feminine Females	1.337	.230
Androgynous Females	.371	.430
Undifferentiated Females	.537	-1.024

and "negative" or undesirable variables correlated negatively with the functions. This transposition has no effect on the mathematical sense of the results.

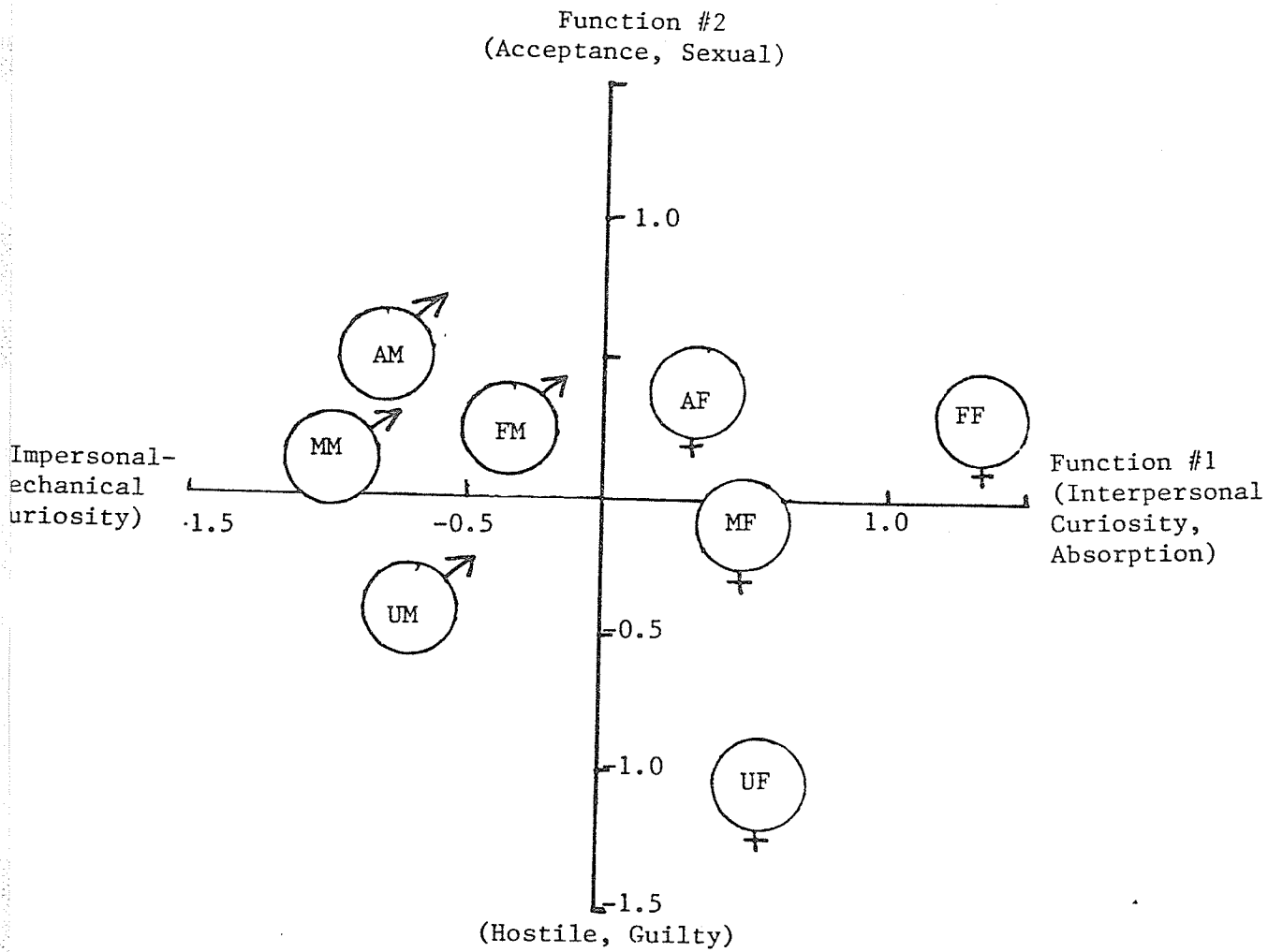
The first discriminant function correlated positively with Interpersonal Curiosity and Absorption in Daydreaming and was negatively related to Impersonal-Mechanical Curiosity. Essentially, the first discriminant function represents a sex difference in interests and absorption, with more-absorbing daydreams about people at the positive pole and less-absorbing daydreams about objects at the negative pole. As the graph of group centroids for the first two functions shows (Figure 1), this first discriminant function separated the eight groups on the variable of gender. All four male groups scored in a negative (Impersonal-Mechanical) direction on function #1, and all four female groups scored in a positive (Interpersonal Curiosity, Absorption) direction on this dimension. Within each sex, Feminine sex-typed individuals were highest in Interpersonal Curiosity and Absorption. Masculine Males were highest in Impersonal-Mechanical Curiosity, and Androgynous and Masculine Females were the highest female groups in Impersonal-Mechanical Curiosity. There is thus a sex-role effect within each sex that parallels the difference between the sexes.

Discriminant Function #2 accounted for an additional 17.20% of the variance between groups. Function #2 represents a dimension with Acceptance of Daydreaming and Sexual Daydreams at the positive pole and Hostile-Aggressive (and, to a lesser extent, Guilty) Daydreams

Figure 1

The First Two Discriminant Functions For Fantasy

Variables: Eight Sex-by-Sex-Role Groups



- MM Masculine Males
- FM Feminine Males
- AM Androgynous Males
- UM Undifferentiated Males
- MF Masculine Females
- FF Feminine Females
- AF Androgynous Females
- UF Undifferentiated Females

at the negative pole (see Table 7).

Undifferentiated Females occupied the extreme negative pole of this dimension, while Undifferentiated Males and Masculine Females also had more Hostile-Aggressive and Guilty fantasies than comfortable, accepted Sexual fantasies (see Figure 1). Function #2 appears to represent a sex-role difference in fantasizing that is particularly pronounced for women.

Fantasy Styles and Media Use Patterns

Because the number of predictor and criterion variables and the degree of intercorrelation within both the predictor set and the criterion set led to dangers of unstable regression solutions and Type One errors over repeated significance testing, subjects' data were transformed into scores on orthogonal factors for this omnibus analysis. This had the further advantages of rendering the results more clearly interpretable by reducing their sheer number, and of delineating the major significant relationships in the data as a guide to subsequent finer-grained analyses.

A Principal Components Analysis with Varimax Rotation was performed using the SPSS FACTOR program (Nie et. al., 1970). The 26 IPI and PAQ variables decomposed into seven orthogonal components (see Table 9), which accounted for 67.7% of the variance in this set of fantasy and sex-role variables. The seven components were readily interpretable. The first three components have been named for the comparable factors found by Singer & Antrobus (1972) in their

Table 9
 Varimax-Rotated Principal Components of Variance
 for Predictor Variables: Imaginal Processes Inventory
 and Personal Attributes Questionnaire

Subscale	Factor						
	1	2	3	4	5	6	7
Gender	.21	-.17	-.02	-.06	.66	.10	.05
PAQ Masculinity	-.35	.14	-.14	.09	.63	-.35	.03
PAQ Femininity	-.36	.25	.07	.24	-.35	-.34	-.21
PAQ M-F	-.04	-.04	-.19	-.09	.78	-.06	.11
Daydream Frequency	-.03	.33	.65	.16	-.20	.07	.06
Absorption	.28	.63	.41	.28	-.16	.15	.01
Acceptance	-.59	.33	.01	.29	.01	.06	.19
Positive Reactions	-.06	.54	.13	.49	-.02	.18	.29
Frightened Reactions	.65	.43	.25	.06	-.23	-.00	-.13
Visual Imagery	.04	.80	.14	.14	-.04	.08	.03
Auditory Imagery	.26	.85	.00	.00	-.03	.02	-.01
Problem-Solving	.16	.31	-.07	.73	.13	-.16	.02
Bizarre-Improbable	.44	.14	.36	.05	.05	.44	-.17
Mindwandering	.06	.10	.81	.06	-.15	.09	-.16
Achievement	.27	.08	.22	.64	.13	.26	-.12
Hallucinatory-Vividness	.67	.52	.07	.10	.00	-.11	-.17
Fear of Failure	.85	.08	.06	.16	-.05	-.11	-.00
Hostile-Aggressive	.64	.15	.30	.14	.23	.17	.12
Sexual	.15	.32	.46	.34	.03	.22	.38
Heroic	.67	.08	.06	.44	.21	.19	-.02
Guilty	.88	.18	.03	.14	.07	-.10	.05
Interpersonal Curiosity	.05	.01	.04	.70	-.38	.01	-.00
Mechanical Curiosity	.18	.00	-.22	.22	.61	.13	-.37
Boredom	.39	-.09	.71	-.24	.04	-.12	-.03
Mentation Rate	-.22	.16	.06	.09	-.05	.70	-.01
Distractibility	.05	.04	.74	.07	-.17	.05	.02
Need for Stimulation	-.07	.02	-.10	-.01	.06	-.05	.83

normative study with the IPI, because their structure is very highly similar. The seven components were: 1) an Obsessional-Emotional fantasy style, with heavy loadings for the Guilty, Fear of Failure, Heroic, Hostile-Aggressive, Hallucinatory-Vividness and Frightened Reactions scales of the IPI; 2) a Positive-Vivid fantasy style, with heavy loadings by the Visual, Auditory, Absorption, Positive Reactions, and Hallucinatory-Vividness scales of the IPI; 3) an Anxious-Distractible style, with heavy loadings for the Mindwandering, Distractibility, Boredom and Frequency scales of the IPI (Singer & Antrobus (1972) reported that personality measures of neuroticism loaded on this factor); 4) a Problemsolving-Interpersonal fantasy component, with loadings by the Problemsolving, Interpersonal Curiosity, Achievement and Positive Reactions scales; 5) a Sex-Role factor, with positive loadings for male gender, PAQ Masculinity and M-F scales, Impersonal-Mechanical Curiosity, and negative loadings for the PAQ Femininity scale and the IPI Interpersonal Curiosity scale; 6) a Mentation Rate factor, with primary loadings for the Mentation Rate and Bizarre-- . Improbable Daydreams scales of the IPI; 7) Need for External Stimulation, a single-variable factor on which only the IPI Need for External Stimulation scale loaded appreciably.

These components resembled previously-published factor structures of the IPI (Giambra, 1977; Singer & Antrobus, 1972).

The media use measures, also substantially intercorrelated, were subjected to an identical Principal Components Analysis procedure

with Varimax Rotation, to reduce redundancy. Seven principal components were derived from the 22 media use measures, accounting for 69.1% of the variance in this set (see Table 10). The orthogonal media use components were: 1) General Television, with large loadings for all eight TV categories and no other variables; 2) General Radio, with substantial loadings for all six radio contents and no other variables; 3) Print Information and Humour, on which Print Interpersonal Information, Print Impersonal Information, Print Humour, and to a lesser extent, Print Music, all loaded; 4) an All Sports factor, on which TV, Radio and Print Sports variables all loaded heavily; 5) a Print Sex & Violence component, with loadings for Sexual-Romantic and Violent Print categories; 6) a Violent Radio Drama and Music Magazines factor, on which, besides these two variables, only Sexual-Romantic TV loaded (negatively). The underlying dimension connecting these variables is not readily discovered, and it may simply represent amounts of as-yet-unexplained variance in media use due to infrequent or atypical patterns of consumption; 7) a Print Nonviolent Drama (fiction) factor, reflecting essentially just this one variable.

Print was more factorially complex than television or radio, probably reflecting the very different behavioural demands made by the print medium on anyone wishing to sample a variety of contents, as opposed to the ease with which a variety of contents is available through the two electronic media.

Each subject's data were converted into scores on the seven

Table 10
 Varimax-Rotated Principal Components of Variance
 for Criterion Variables: 22 Television,
 Radio, and Print Categories

Category	Factor						
	1	2	3	4	5	6	7
TV1	.75	.18	.09	.20	-.11	.23	-.10
TV2	.83	.09	-.01	.08	-.12	.15	-.10
TV3	.55	-.13	-.17	.66	.05	.08	-.14
TV4	.58	-.07	.08	.04	-.00	-.44	-.09
TV5	.76	-.12	-.09	.17	.00	.02	-.11
TV6	.83	.05	.22	-.02	-.02	-.11	.11
TV7	.75	-.00	.02	.01	.20	-.21	.36
TV8	.79	.02	.16	.14	.16	-.11	.23
RADIO1	.03	.84	.12	.22	-.00	.20	.09
RADIO2	.02	.71	-.07	.01	.02	.10	.01
RADIO3	.25	.34	.05	.75	.05	.01	.06
RADIO5	.03	.57	.23	.24	.13	.25	.04
RADIO7	.03	.29	-.05	-.01	-.06	.66	.04
RADIO8	-.02	.67	.14	-.14	.02	-.12	-.15
PRINT1	.07	.13	.91	.07	.02	.04	-.00
PRINT2	.10	.14	.83	-.01	.00	-.05	-.03
PRINT3	.06	.00	.21	.88	.10	-.05	-.03
PRINT4	.07	.14	.19	.18	.74	-.22	.01
PRINT5	-.10	-.02	.41	.01	.36	.54	-.06
PRINT6	.04	-.03	-.02	-.04	-.06	.05	.92
PRINT7	-.02	.00	-.02	-.02	.82	.19	-.05
PRINT8	.11	-.01	.54	.19	.38	.05	.03

No programs were categorized as RADIO4 or RADIO6; these categories had zero frequencies.

fantasy life factors and seven media use factors, and analyzed by Canonical Correlation, with the Multivariate-6 program (Finn, 1978). The hypothesis of no association between the predictor and criterion variables was rejected ($F_{49, 1045} = 2.57, p < .0001$). Two significant Canonical Correlations emerged from these data (see Table 11).

The first canonical variate for the predictors had positive loadings for the Obsessional-Emotional fantasy style and Masculine Sex-Role. This composite appears to represent a dimension of ruminative and dysphoric fantasy and masculinity of interests. It correlated .49 with the first canonical variate for the criterion variables. This had high positive loadings for Print Sex & Violence, All Sports, and a smaller positive loading for General TV, but negative loadings for Print Information and Humour and General Radio. This correlation indicates that persons high in an aversive, unpleasant fantasy style, with masculine interest patterns, also tend to be heavier users of print pornography, a variety of sports coverage, and to a lesser extent, a variety of television programs. They also tend not to read print informational or humorous material or listen to radio.

The second canonical variate for the predictors had large positive loadings for the Obsessional-Emotional fantasy style and also for the Anxious-Distractible style and Problemsolving-Interpersonal style. The Sex-Role factor loaded negatively on this canonical variate (i.e. in the Feminine direction). This variate correlated .36 with the

Table 11
 Structure Coefficients for the First Two
 Significant Canonical Correlations:
 Adult Fantasy Style and Media Use Factors

Factor Score	Correlation With Canonical Variate	
Composite Variable	#1	#2
<u>Fantasy Style (Predictors)</u>		
Obsessional-Emotional	.64	.59
Positive-Vivid	-.10	.02
Anxious-Distractible	-.06	.46
Problem-Solving-Interpersonal	-.24	.54
Sex-Role	.72	-.31
Mentation Rate	-.05	-.14
Need for Stimulation	-.02	-.17
<u>Media Use (Criteria)</u>		
General Television	.21	.35
General Radio	-.33	-.44
Print Information & Humour	-.63	.12
All Sports	.43	-.48
Print Sex & Violence	.50	.25
Violent Radio Drama & Music Magazines	.11	-.57
Print Nonviolent Drama	.03	.25

Test of Significance of Canonical Correlations

Correlations 1 through 7, Chi square (49 d.f.) = 121.49, $p < .0001$
Correlations 2 through 7, Chi square (36 d.f.) = 62.76, $p < .0038$
Correlations 3 through 7, Chi square (25 d.f.) = 33.48, $p < .1195$
Correlations 4 through 7, Chi square (16 d.f.) = 13.85, $p < .6099$
Correlations 5 through 7, Chi square (9 d.f.) = 5.17, $p < .8189$
Correlations 6 through 7, Chi square (4 d.f.) = 0.37, $p < .9846$
Correlations 7 through 7, Chi square (1 d.f.) = 0.76, $p < .7618$

second canonical variate for the criterion variables. This had negative loadings for General Radio, All Sports and the Violent Radio Drama and Music Magazines factor, and a positive loading for General TV.

This second major dimension of variation in the data indicates that individuals high in Anxious-Distractibility, Obsessional-Emotional fantasies, and Problemsolving-Interpersonal fantasies are least likely to listen to a lot of General Radio and Violent Radio Drama and to follow sports in all three media or read music-related publications. These people are more likely to view television, and are less stereotypically masculine.

In summary, the Canonical Correlation analysis revealed that pornography and sports were used heavily by persons, primarily men, high in unpleasant guilty and hostile ruminations. Persons low in Obsessional-Emotional daydreaming, Anxious-Distractibility and Problemsolving-Interpersonal fantasies were the heaviest users of violent radio drama, music magazines, sports and general radio as a media diet. The Positive-Vivid style of fantasy appeared from these analyses to have no significant relationship to media use patterns.

Within-Medium Analyses

Having established, with a high degree of confidence due to the use of factor scores in the Canonical Correlation analysis, the form of the major relationships within these data, it was then possible and advisable to proceed to a finer-grained level of analysis. Reflecting

the correlations among content types within each medium rather than across media, the Principal Components Analysis produced several medium factors and few content factors. As a result, the first effects seen in the Canonical Correlations were between-medium effects. The second Canonical Correlation suggested relationships between fantasy life and certain contents (e.g. Sports) across media. The within-medium analyses were undertaken to determine whether there were relationships between fantasy life measures and content measures within each medium that had been obscured by the more powerful between-medium and across-media relationships.

Separate Canonical Correlation Analyses using the 26 fantasy and sex-role raw variables as predictors and eight content categories (6 in the case of Radio) were performed for each of the three media. Again the Multivariate-6 program (Finn, 1978) was used.

Television Two significant Canonical Correlations were found between television contents and fantasy and sex-role measures (see Table 12). The hypothesis of no association between the predictor and criterion variables was rejected ($F_{216, 1432} = 1.67, p < .0001$).

The first Canonical Correlation was .64. Male gender, the PAQ M and M-F scales, and Impersonal-Mechanical Curiosity were positively correlated with the first canonical variate for the predictors. The PAQ Femininity scale, Daydream Frequency and Interpersonal Curiosity correlated negatively with it. The first canonical variate for the criterion variables was negatively correlated with Nonviolent TV Drama

and positively correlated with TV Sports. All other television categories had negligible correlations with this variate (see Table 12). The first Canonical Correlation results from a sex-role difference in viewing patterns, with male gender and masculine sex-role-associated fantasy pattern correlated with Sports viewing while female gender and feminine sex-role-associated fantasy pattern correlate with Non-violent Drama viewing (family series and "soap operas"). The viewing of these categories of programming can be considered to be sex-role stereotypic, from these results.

The second Canonical Correlation was .52 (see Table 12). The structure coefficients for this correlation showed that the Musical, Violent Drama and Humorous categories of TV viewing correlated with the second canonical variate for the criteria. Sexual-Romantic, Sports, and Nonviolent Drama television viewing correlated to a lesser extent in the same direction with this variate. The second canonical variate for the predictors correlated negatively with Acceptance of Fantasy and positively with Heroic, Guilty, Bizarre, Hostile and Fear of Failure daydreams and Distractibility. This correlation mirrors the association described above between the Print Sex & Violence factor and the Obsessional-Emotional fantasy style in the previously-reported factor scores analysis. The General Television factor loaded along with Print Sex & Violence and All Sports on the first canonical variate for the criterion variables in that analysis, but to a much lesser extent than the others. The within-medium analysis for tele-

Table 12

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Structure Coefficients for the First Two

Significant Canonical Correlations: Television Contents,
Imaginal Processes Inventory and Personal Attributes Questionnaire

Variable	Correlation With Canonical Variate	
	#1	#2
<u>Fantasy and Sex-Role (Predictors)</u>		
Gender	.75	.07
PAQ Masculinity	.32	.13
PAQ Femininity	-.32	.04
PAQ M-F	.52	.15
Daydream Frequency	-.44	-.23
Absorption	-.35	.17
Acceptance	-.17	-.43
Positive Reactions	-.15	.18
Frightened Reactions	-.24	.14
Visual Imagery	-.16	.00
Auditory Imagery	-.09	.11
Problem-Solving	-.04	-.04
Bizarre-Improbable	-.14	.35
Mindwandering	-.36	.28
Achievement	-.18	.30
Hallucinatory-Vividness	-.09	.29
Fear of Failure	-.03	.30
Hostile-Aggressive	.14	.32
Sexual	-.24	.04
Heroic	-.10	.39
Guilty	.12	.36
Interpersonal Curiosity	-.49	.08
Mechanical Curiosity	.36	.25
Boredom	-.25	.30
Mentation Rate	-.00	-.13
Distractibility	-.28	.30
Need for Stimulation	.08	.07
<u>Television Contents (Criteria)</u>		
1. Interpersonal Information	.08	-.15
2. Impersonal Information	.12	.22
3. Sports & Physical Activity	.48	.35
4. Sexual-Romantic	-.14	.35
5. Musical	.01	.67
6. Nonviolent Drama	-.53	.34
7. Violent Drama	-.07	.62
8. Humorous	-.06	.49

Table 12 (continued)

Test of Significance of Canonical Correlations

Correlations 1 through 8, Chi square (216 d.f.)	=	344.93, p < .0001
Correlations 2 through 8, Chi square (182 d.f.)	=	238.61, p < .0031
Correlations 3 through 8, Chi square (150 d.f.)	=	174.96, p < .0799
Correlations 4 through 8, Chi square (120 d.f.)	=	123.94, p < .3842
Correlations 5 through 8, Chi square (92 d.f.)	=	81.07, p < .7854
Correlations 6 through 8, Chi square (66 d.f.)	=	51.69, p < .9014
Correlations 7 through 8, Chi square (42 d.f.)	=	28.94, p < .9373
Correlations 8 through 8, Chi square (20 d.f.)	=	10.60, p < .9561

vision demonstrates that the association suggested between pornography and sports consumption and the Obsessional-Emotional fantasy style does indeed hold for television consumption as well.

Radio The first Canonical Correlation between radio contents and the fantasy and sex-role variables was .49 ($F_{162, 1101} = 1.313$, $p < .0084$). No further Canonical Correlations were significant within radio.

Examination of the structure coefficients for this Canonical Correlation (Table 13) showed that the first canonical variate for the predictors was positively correlated with male gender, Impersonal-Mechanical Curiosity, Bizarre-Improbable Daydreams and Auditory Imagery in fantasy, and the PAQ Femininity scale. It is negatively correlated with Interpersonal Curiosity in Daydreams.

The first canonical variate for the criterion variables was positively correlated with Violent Radio Drama and negatively correlated with Interpersonal Information on the radio.

This Canonical Correlation seems to clarify the fantasy life correlates of Violent Radio Drama consumption, which was the category of radio programming that loaded most heavily on the criterion composite in the second significant overall Canonical Correlation of factor scores.

Print The first Canonical Correlation between print categories and the fantasy and sex-role variables was .66 ($F_{216, 1432} = 1.603$, $p < .0001$). The first canonical variate for the predictors (see

Structure Coefficients for the First Significant

Canonical Correlation: Radio Contents,

Imaginal Processes Inventory and Personal Attributes Questionnaire

Variable	Correlation With Canonical Variate #1
<u>Fantasy and Sex-Role (Predictors)</u>	
Gender	.33
PAQ Masculinity	.09
PAQ Femininity	.27
PAQ M-F	-.03
Daydream Frequency	.20
Absorption	.09
Acceptance	.14
Positive Reactions	.09
Frightened Reactions	-.01
Visual Imagery	-.01
Auditory Imagery	.28
Problem-Solving	.01
Bizarre-Improbable	.28
Mindwandering	-.05
Achievement	-.13
Hallucinatory-Vividness	.08
Fear of Failure	.09
Hostile-Aggressive	-.07
Sexual	.08
Heroic	.23
Guilty	.02
Interpersonal Curiosity	-.26
Mechanical Curiosity	.26
Boredom	-.05
Mentation Rate	-.06
Distractibility	-.11
Need for Stimulation	-.01
<u>Radio Contents (Criteria)</u>	
1. Interpersonal Information	.01
2. Impersonal Information	-.45
3. Sports & Physical Activity	.01
5. Musical	.05
7. Violent Drama	.77
8. Humorous	-.20

Table 13 (continued)

Test of Significance of Canonical Correlations

Correlations 1 through 6, Chi square (162 d.f.) = 208.60, $p < .0080$
Correlations 2 through 6, Chi square (130 d.f.) = 154.49, $p < .0704$
Correlations 3 through 6, Chi square (100 d.f.) = 104.95, $p < .3479$
Correlations 4 through 6, Chi square (72 d.f.) = 69.05, $p < .5769$
Correlations 5 through 6, Chi square (46 d.f.) = 40.39, $p < .7057$
Correlations 6 through 6, Chi square (22 d.f.) = 15.96, $p < .8177$

Structure Coefficients for the First Significant

Canonical Correlation: Print Contents,

Imaginal Processes Inventory and Personal Attributes Questionnaire

Variable	Correlation With Canonical Variate #1
<u>Fantasy and Sex-Role (Predictors)</u>	
Gender	-.84
PAQ Masculinity	-.21
PAQ Femininity	.28
PAQ M-F	-.34
Daydream Frequency	.23
Absorption	.07
Acceptance	.22
Positive Reactions	.02
Frightened Reactions	-.02
Visual Imagery	-.05
Auditory Imagery	-.12
Problem-Solving	.00
Bizarre-Improbable	-.05
Mindwandering	-.09
Achievement	-.05
Hallucinatory-Vividness	-.18
Fear of Failure	-.16
Hostile-Aggressive	-.35
Sexual	-.18
Heroic	-.32
Guilty	.26
Interpersonal Curiosity	.42
Mechanical Curiosity	-.30
Boredom	-.08
Mentation Rate	.26
Distractibility	.07
Need for Stimulation	.06
<u>Print Contents (Criteria)</u>	
1. Interpersonal Information	.51
2. Impersonal Information	.52
3. Sports & Physical Activity	-.39
4. Sexual-Romantic	-.47
5. Musical	-.10
6. Nonviolent Drama	.15
7. Violent Drama	-.11
8. Humorous	-.24

Table 14 (continued)

Test of Significance of Canonical Correlations

Correlations 1 through 8, Chi square (216 d.f.)	=	333.28,	p	<	.0001
Correlations 2 through 8, Chi square (182 d.f.)	=	220.55,	p	<	.0270
Correlations 3 through 8, Chi square (150 d.f.)	=	169.91,	p	<	.1271
Correlations 4 through 8, Chi square (120 d.f.)	=	124.97,	p	<	.3596
Correlations 5 through 8, Chi square (92 d.f.)	=	81.74,	p	<	.7694
Correlations 6 through 8, Chi square (66 d.f.)	=	53.85,	p	<	.8580
Correlations 7 through 8, Chi square (42 d.f.)	=	31.65,	p	<	.8777
Correlations 8 through 8, Chi square (20 d.f.)	=	13.18,	p	<	.8694

Table 14) correlated positively with Interpersonal Curiosity in Daydreams and female gender, and negatively with the PAQ M-F scale, Hostile and Heroic fantasies. The first canonical variate for the criterion variables was most strongly positively correlated with Impersonal and Interpersonal Information, and negatively correlated with Sexual-Romantic and Sports-related print consumption.

This correlation reflects a sex and sex-role difference in print use patterns with women and those highest in Interpersonal Curiosity tending to read more Interpersonal and Impersonal Information and to have fewer Hostile and Heroic fantasies. The opposite pole represents the association of male gender, Masculinity, Hostile and Heroic fantasies with reading of erotica and sports coverage.

Post-Hoc Regression Analyses

To this point, the overall Type-One error probability for the Adult Study, based on significance testing at the .001 level for seven discriminant functions and 29 canonical correlations, is estimated at .036. Because of the large numbers of variables involved, further statistical examination of the relationships of individual fantasy scales to particular media content types would rapidly increase the probability of a Type-One error. To aid in interpretation of the results previously described and as a guide to future research, however, analyses of the predictability of use of individual contents within each medium were undertaken. These analyses were performed separately for men and women, to determine the generality of findings

reported above.

The reader is cautioned in the strongest terms that the following analyses are presented for heuristic purposes only, at a much lower level of statistical confidence than the preceding major analyses. Any apparent contradictions between the individual regression analysis findings and the overall canonical correlation findings can not be assumed to be highly reliable for two reasons: First, variables which are significant predictors in combination with other variables may not remain significant in isolation, and significant prediction of multivariate criterion composites does not necessarily mean that each individual variable is significantly predicted by the same set of predictors. Second, the probability of making a Type One error is considerably increased in these post-hoc analyses, due to the large number of significance tests involved using the same set of predictors.

Each of the 22 medium-by-content combinations was subjected to a Stepwise Multiple Regression Analysis, using 26 IPI and PAQ predictor variables. This was done separately for males and females in each case, using the SPSS REGRESSION program. No significant prediction of TV2 (Impersonal Information), PRINT6 (Nonviolent Drama) or PRINT7 (Violent Drama) was possible for either males or females, and these analyses are not tabled. Stepwise Multiple Regression Analyses for the remaining 19 types of media offerings, for males and females, are presented in Tables 15 through 33. Only

significant predictors are included in these tables.

Tables of simple correlations between all predictor and criterion variables for men and women (Appendix VI) give the correlations with each type of content within each medium for all predictors including those that did not enter these stepwise regression equations.

Stepwise Multiple Regression of Fantasy and Sex-Role Measures on
 Television Interpersonal Information Viewing
 For Males and Females

Predictor	<u>r</u>	<u>Mult.R</u>	beta	<u>F</u>	Significance
<u>MALES</u> ¹					
PAQ M-F	-.21	.21	-.34	10.91	<.01
PAQ Femininity	-.11	.29	-.23	5.42	<.05
Mindwandering	-.07	.31	-.21	4.41	<.05
Visual Imagery	.12	.37	.20	4.02	<.05
<u>FEMALES</u> ²					
Positive Reactions	-.30	.30	-.35	14.63	<.001
Interpersonal Curiosity	.10	.35	.19	4.13	<.05

1 1, 101 degrees of freedom for the test of significance of each beta weight.

2 1, 110 degrees of freedom for the test of significance of each beta weight.

Variables entering at subsequent steps which did not significantly increase the Multiple R are not tabled.

Stepwise Multiple Regression of Fantasy and Sex-Role Measures on
Television Sports Viewing
For Males and Females

Predictor	<u>r</u>	<u>Mult.R</u>	beta	<u>F</u>	Significance
<u>MALES</u> ¹					
Daydream Frequency	-.20	.20	-.25	6.62	<.05
Frightened Reactions	.18	.30	.23	5.83	<.05
<u>FEMALES</u> ²					
Problemsolving in Daydreams	-.20	.20	-.24	6.60	<.05
Impersonal-Mechanical Curiosity	.17	.29	.21	5.29	<.05

1 1, 103 degrees of freedom for the test of significance of each beta weight.

2 1, 110 degrees of freedom for the test of significance of each beta weight.

Variables entering at subsequent steps which did not significantly increase the Multiple R are not tabled.

Stepwise Multiple Regression of Fantasy and Sex-Role Measures on
 Television Sexual-Romantic Viewing
 For Males and Females

Predictor	<u>r</u>	<u>Mult.R</u>	beta	<u>F</u>	Significance
<u>MALES</u> ¹					
Fear of Failure	.30	.30	.30	9.94	<.01
<u>FEMALES</u> ²					
Bizarre-Improbable Daydreams	.20	.20	.33	10.99	<.01
Hostile-Aggressive Daydreams	-.14	.33	-.31	9.46	<.01
PAQ M-F	-.17	.38	-.18	4.01	<.05

1 1, 104 degrees of freedom for the test of significance of each beta weight.

2 1, 109 degrees of freedom for the test of significance of each beta weight.

Variables entering at subsequent steps which did not significantly increase the Multiple R are not tabled.

Stepwise Multiple Regression of Fantasy and Sex-Role Measures on
Television Musical Viewing
For Males and Females

Predictor	<u>r</u>	<u>Mult.R</u>	beta	<u>F</u>	Significance
<u>MALES</u> ¹					
Guilty Daydreams	.35	.35	.35	14.28	<.001
<u>FEMALES</u> ²					
Sexual Daydreams	-.26	.26	-.26	6.57	<.05
Heroic Daydreams	.15	.34	.36	13.11	<.001
Mindwandering	.09	.39	.37	13.02	<.001
Hostile-Aggressive Daydreams	-.11	.44	-.24	5.07	<.05
Daydream Frequency	-.20	.48	-.24	4.89	<.05

1 1, 104 degrees of freedom for the test of significance of each beta weight.

2 1, 107 degrees of freedom for the test of significance of each beta weight.

Variables entering at subsequent steps which did not significantly increase the Multiple R are not tabled.

Stepwise Multiple Regression of Fantasy and Sex-Role Measures on
Television Nonviolent Drama Viewing
For Males and Females

Predictor	<u>r</u>	<u>Mult.R</u>	beta	<u>F</u>	Significance
<u>MALES</u> ¹					
Boredom	.28	.28	.28	8.57	<.01
<u>FEMALES</u> ²					
Heroic Daydreams	.29	.29	.56	26.84	<.001
Guilty Daydreams	-.04	.39	-.34	10.45	<.01
Mindwandering	.24	.47	.26	9.86	<.01
Problemsolving in Daydreams	-.10	.51	-.21	5.50	<.05

1 1, 104 degrees of freedom for the significance test of each beta weight.

2 1, 108 degrees of freedom for the significance test of each beta weight.

Variables entering at subsequent steps which did not significantly increase the Multiple R are not tabled.

Stepwise Multiple Regression of Fantasy and Sex-Role Measures on
Television Violent Drama Viewing
For Males and Females

Predictor	<u>r</u>	<u>Mult.R</u>	beta	<u>F</u>	Significance
<u>MALES</u> ¹					
Hostile-Aggressive Daydreams	.31	.31	.31	11.01	<.01
<u>FEMALES</u> ²					
Bizarre-Improbable Daydreams	.21	.21	.28	8.06	<.01
PAQ Femininity	.13	.27	.20	4.78	<.05
Daydream Frequency	-.06	.33	-.34	9.62	<.01
Mindwandering	.21	.40	.28	7.00	<.01

1 1, 104 degrees of freedom for the test of significance of each beta weight.

2 1, 108 degrees of freedom for the test of significance of each beta weight.

Variables entering at subsequent steps which did not significantly increase the Multiple R are not tabled.

Stepwise Multiple Regression of Fantasy and Sex-Role Measures on
Television Humorous Viewing
For Males and Females

Predictor	<u>r</u>	<u>Mult.R</u>	beta	<u>F</u>	Significance
<u>MALES</u> ¹					
Hostile-Aggressive Daydreams	.29	.29	.29	9.26	<.01
<u>FEMALES</u> ²					
Bizarre-Improbable Daydreams	.19	.19	.19	4.16	<.05

1 1, 104 degrees of freedom for the test of significance of each beta weight.

2 1, 111 degrees of freedom for the test of significance of each beta weight.

Variables entering at subsequent steps which did not significantly increase the Multiple R are not tabled.

Stepwise Multiple Regression of Fantasy and Sex-Role Measures on
Radio Interpersonal Information Listening
For Males and Females

Predictor	<u>r</u>	<u>Mult.R</u>	beta	<u>F</u>	Significance
<u>MALES</u> ¹					
Fear of Failure	-.33	.33	-.50	17.70	<.001
Positive Reactions	-.30	.42	-.32	12.38	<.001
Frightened Reactions	-.11	.48	.32	6.79	<.05
<u>FEMALES</u> ²					
Acceptance of Daydreaming	.21	.21	.23	6.18	<.05
Achievement Daydreams	-.17	.28	-.19	4.27	<.05

1 1, 102 degrees of freedom for the test of significance of each beta weight.

2 1, 110 degrees of freedom for the test of significance of each beta weight.

Variables entering at subsequent steps which did not significantly increase the Multiple R are not tabled.

Stepwise Multiple Regression of Fantasy and Sex-Role Measures on
Radio Impersonal Information Listening
For Males and Females

Predictor	<u>r</u>	<u>Mult.R</u>	beta	<u>F</u>	Significance
<u>MALES</u> ¹					
Fear of Failure	-.30	.30	-.30	10.51	<.01
Positive Reactions	-.29	.39	-.33	11.46	<.01
Auditory Imagery	-.01	.43	.21	4.29	<.05
<u>FEMALES</u> ²					
Need for Stimulation	.22	.22	.20	4.82	<.05
PAQ Femininity	-.20	.29	-.23	6.13	<.05
Bizarre-Improbable Daydreams	-.18	.35	-.20	4.97	<.05

1 1, 102 degrees of freedom for the test of significance of each beta weight.

2 1, 109 degrees of freedom for the test of significance of each beta weight.

Variables entering at subsequent steps which did not significantly increase the Multiple R are not tabled.

Stepwise Multiple Regression of Fantasy and Sex-Role Measures on
Radio Sports Listening
For Males and Females

Predictor	<u>r</u>	<u>Mult.R</u>	beta	<u>F</u>	Significance
<u>MALES</u> ¹					
Problemsolving in Daydreams	-.23	.23	-.23	5.73	<.05
<u>FEMALES</u> ²					
Problemsolving in Daydreams	-.20	.20	-.20	4.46	<.05

1 1, 104 degrees of freedom for the test of significance of each beta weight.

2 1, 111 degrees of freedom for the test of significance of each beta weight.

Variables entering at subsequent steps which did not significantly increase the Multiple R are not tabled.

Stepwise Multiple Regression of Fantasy and Sex-Role Measures on
 Radio Music Listening
 For Males and Females

Predictor	<u>r</u>	<u>Mult.R</u>	beta	<u>F</u>	Significance
<u>MALES</u> ¹					
Fear of Failure	-.38	.38	-.38	17.05	< .001
<u>FEMALES</u>					all n.s.

1 1, 104 degrees of freedom for the test of significance of each beta weight.

Variables entering at subsequent steps which did not significantly increase the Multiple R are not tabled.

Stepwise Multiple Regression of Fantasy and Sex-Role Measures on
Radio Violent Drama Listening
For Males and Females

Predictor	<u>r</u>	<u>Mult.R</u>	beta	<u>F</u>	Significance
<u>MALES</u> ¹					
Daydream Frequency	.26	.26	.31	9.45	<.01
Distractibility	-.15	.39	-.28	8.56	<.01
Fear of Failure	-.22	.43	-.26	8.02	<.01
Auditory Imagery	.25	.49	.25	7.14	<.01
<u>FEMALES</u> ²					
Need for Stimulation	.21	.21	.20	4.76	<.05
Achievement Daydreams	-.20	.28	-.19	4.20	<.05

1 1, 101 degrees of freedom for the test of significance of each beta weight.

2 1, 110 degrees of freedom for the test of significance of each beta weight.

Variables entering at subsequent steps which did not significantly increase the Multiple R are not tabled.

Stepwise Multiple Regression of Fantasy and Sex-Role Measures on
Radio Humorous Listening
For Males and Females

Predictor	<u>r</u>	<u>Mult.R</u>	beta	<u>F</u>	Significance
<u>MALES</u> ¹					
Fear of Failure	-.22	.22	-.24	6.62	<.05
Sexual Daydreams	.19	.31	.21	5.12	<.05
<u>FEMALES</u> ²					
Acceptance of Daydreaming	.25	.25	.25	7.21	<.01

1 1, 103 degrees of freedom for the test of significance of each beta weight.

2 1, 111 degrees of freedom for the test of significance of each beta weight.

Variables entering at subsequent steps which did not significantly increase the Multiple R are not tabled.

Stepwise Multiple Regression of Fantasy and Sex-Role Measures on
Print Interpersonal Information Reading
For Males and Females

Predictor	<u>r</u>	<u>Mult.R</u>	beta	<u>F</u>	Significance
<u>MALES</u> ¹					
Fear of Failure	-.22	.22	-.24	6.35	< .05
PAQ M-F	-.20	.31	-.21	5.25	< .05
<u>FEMALES</u> ²					
Hallucinatory-Vividness	-.29	.29	-.36	16.19	< .001
Interpersonal Curiosity	.25	.38	.30	11.73	< .001
Boredom	.06	.44	.24	6.81	< .05

1 1, 103 degrees of freedom for the test of significance of each beta weight.

2 1, 109 degrees of freedom for the test of significance of each beta weight.

Variables entering at subsequent steps which did not significantly increase the Multiple R are not tabled.

Stepwise Multiple Regression of Fantasy and Sex-Role Measures on
 Print Impersonal Information Reading
 For Males and Females

Predictor	<u>r</u>	<u>Mult.R</u>	beta	<u>F</u>	Significance
<u>MALES</u> ¹					
Heroic Daydreams	-.24	.24	-.24	6.15	<.05
<u>FEMALES</u> ²					
Auditory Imagery	-.20	.20	-.22	5.71	<.05
Interpersonal Curiosity	.19	.29	.20	4.97	<.05

1 1, 104 degrees of freedom for the test of significance of each beta weight.

2 1, 110 degrees of freedom for the test of significance of each beta weight.

Variables entering at subsequent steps which did not significantly increase the Multiple R are not tabled.

Stepwise Multiple Regression of Fantasy and Sex-Role Measures on
 Print Sports Reading
 For Males and Females

Predictor	<u>r</u>	<u>Mult.R</u>	beta	<u>F</u>	Significance
<u>MALES</u> ¹					
Absorption in Daydreams	-.25	.25	-.27	6.49	<.05
Mindwandering	.08	.32	.32	8.39	<.01
Daydream Frequency	-.20	.38	-.24	4.51	<.05
<u>FEMALES</u> ²					
Problemsolving in Daydreams	-.24	.24	-.24	6.91	<.01

1 1, 102 degrees of freedom for the test of significance of each beta weight.

2 1, 111 degrees of freedom for the test of significance of each beta weight.

Variables entering at subsequent steps which did not significantly increase the Multiple R are not tabled.

Stepwise Multiple Regression of Fantasy and Sex-Role Measures on
Print Sexual-Romantic Reading
For Males and Females

Predictor	<u>r</u>	<u>Mult.R</u>	beta	<u>F</u>	Significance
<u>MALES</u> ¹					
Mentation Rate	-.24	.24	-.25	7.73	< .01
Sexual Daydreams	.21	.33	.33	11.14	< .01
Daydream Frequency	-.12	.40	.02	5.77	< .05
<u>FEMALES</u> ²					
Boredom	.22	.22	.33	11.77	< .001
Interpersonal Curiosity	.16	.31	.21	5.00	< .05
Acceptance of Daydreaming	.12	.36	.01	4.08	< .05

1 1, 102 degrees of freedom for the test of significance of each beta weight.

2 1, 109 degrees of freedom for the test of significance of each beta weight.

Variables entering at subsequent steps which did not significantly increase the Multiple R are not tabled.

Stepwise Multiple Regression of Fantasy and Sex-Role Measures on
 Print Musical Reading
 For Males and Females

Predictor	<u>r</u>	<u>Mult.R</u>	beta	<u>F</u>	Significance
<u>MALES</u> ¹					
Need for Stimulation	.23	.23	.22	5.46	<.05
Boredom	.18	.30	.01	7.81	<.01
Fear of Failure	-.20	.38	.01	6.07	<.05
<u>FEMALES</u> ²					
Hallucinatory-Vividness	-.21	.21	-.21	5.04	<.05

1 1, 102 degrees of freedom for the test of significance of each beta weight.

2 1, 111 degrees of freedom for the test of significance of each beta weight.

Variables entering at subsequent steps which did not significantly increase the Multiple R are not tabled.

Table 33

Stepwise Multiple Regression of Fantasy and Sex-Role Measures on
Print Humorous Reading
For Males and Females

Predictor	<u>r</u>	<u>Mult.R</u>	beta	<u>F</u>	Significance
<u>MALES</u> ¹					
Need for Stimulation	.27	.27	.29	11.28	< .01
Hostile-Aggressive Daydreams	.25	.39	.02	18.53	< .001
Fear of Failure	-.11	.47	-.33	10.68	< .01
Mentation Rate	-.19	.52	-.22	6.61	< .05
<u>FEMALES</u> ²					
PAQ Masculinity	-.25	.25	-.23	6.52	< .05
Hallucinatory-Vividness	-.14	.30	-.27	7.88	< .01
Heroic	.19	.38	.26	6.85	< .05

1 1, 101 degrees of freedom for the test of significance of each beta weight.

2 1, 109 degrees of freedom for the test of significance of each beta weight.

Variables entering at subsequent steps which did not significantly increase the Multiple R are not tabled.

Discussion

Sex, Sex-Role and Fantasy Style

This study found that the major sex difference in adult fantasizing was that women were more interpersonally curious and absorbed in daydreaming, while men were more mechanically curious and less absorbed. This replicated previous findings (Giambra, 1980; Segal, Huba & J. Singer, 1980). Women daydream about "people" while men daydream about "things". Men were more likely to endorse IPI items such as "I find myself thinking more about interesting new machines than about people"; women were more likely to endorse IPI items like "I often notice a person at a restaurant or bar and wonder what he does for a living or what kind of person he is."

This dimension also differentiated Masculine and Feminine sex-typed individuals within each gender. Masculine Males were the male group most characterized by Impersonal-Mechanical Curiosity, while Feminine Females were the women most absorbed in Interpersonal Curiosity. Both sex and sex-role were associated in the same manner with these fantasy life variables.

Sex-role appeared to be more strongly associated than sex with some other variables of fantasy style, however. The second discriminant function showed that Undifferentiated groups of each sex were more inclined toward Hostile-Aggressive fantasies and Guilty fantasies than Sexual fantasies and Acceptance of Daydreaming. The extreme scores of the Undifferentiated Female group were particularly note-

worthy. Clearly, previous modes of analysis of simple sex differences in hostile and sexual fantasy that did not take this group into account would have been thereby distorted. Combining, for purposes of analysis, the Undifferentiated and Androgynous groups (as Conley, 1978) would have produced misleading results, as both Undifferentiated Males and Undifferentiated Females were relatively high in hostile and low in sexual fantasy, while Androgynous groups of both sexes were low in hostile and high in sexual fantasies.

Masculine Males described their fantasy lives as centring on impersonal topics and curiosity about how things work. Their fantasies were not reported to be very absorbing.

Feminine Males were the male group most similar to females in their fantasy patterns. Their fantasies centred on personal relationships and were more absorbing than the fantasies of other men.

Androgynous Males were more accepting of daydreaming than other men and had more sexual fantasies and fewer hostile and guilty fantasies.

Undifferentiated Males were the men with the largest number of hostile and guilty fantasies and the fewest sexual fantasies. They were the men who were least accepting of daydreaming in themselves.

Masculine Females were rather similar to men in impersonal-mechanical contents of fantasy, as were Androgynous Females.

Feminine Females were, of all eight groups, the group most characterized by absorbing fantasies about other people. They also tended

to accept daydreams and to report sexual fantasies.

Androgynous Females were more masculine in their impersonal-mechanical interests than other women (like Masculine Females) and also more accepting of daydreams and higher in sexual fantasies (like Feminine Females).

Undifferentiated Females were the highest of all eight groups in hostile and guilty fantasies and daydreams, and the lowest of all in sexual fantasies. Not surprisingly, they were also least accepting of daydreaming in themselves.

The present study's results do not support, at least for the realm of fantasy, the general contention (Erdwins, Small & Gross, 1980) that the presence of Masculine attributes in the individual's sex-role rather than the balance of Masculine and Feminine is related to personal adjustment. Rather, Androgyny was clearly associated with "healthier" more pleasant fantasizing for men and women than was Masculine sex-role alone.

Sex-role was associated with much greater differences in fantasy style for women than for men in this study. Harris & Schwab (1979) reported that Androgynous and Masculine women were better adjusted than Undifferentiated or Feminine women. To the extent that the fantasy style reflects adjustment, the present study's results suggest only that the Undifferentiated Female group is less well-adjusted than the other three female groups.

The above findings illustrate that the relationship of sex-role

to fantasy style in some cases overshadows the factor of gender. The value of multivariate statistical techniques in clarifying previously ambiguous relationships among variables has once again been demonstrated.

Fantasy Styles and Media Use Patterns

The relationships between fantasy styles and patterns of media use were the primary focus of the Adult Study. Two highly significant patterns related to fantasy life were found.

Pattern #1: Print Sex & Violence & All Sports vs. Print Information & Humour & General Radio This study found that consumers of sexual and violent print materials (e.g. Penthouse, Heavy Metal, Playgirl) and Sports material from all three media were more likely to be male and have traditional masculine impersonal-mechanical interests. Consumption of these materials was also strongly associated with the Obsessional-Emotional fantasy style. The familiar advertisement asking "What sort of man reads Playboy?" has generally portrayed the reader as much more self-confident and less ruminative and hostile than these findings would suggest he is. The heavy user of sexual and violent magazines and sports material from all media has a most unpleasant fantasy life, with obsessive guilty thoughts and fears of failure as well as hostile-aggressive and heroic fantasies. Perhaps the latter compensate somewhat for fears of inadequacy and self-doubt. Not surprisingly, such a person is low in acceptance of fantasy. These individuals are unlikely to read other print materials except for

sports magazines or the sports section of the newspaper. They also listen to very little radio, again with the exception of sports coverage, and view some television, especially sports.

These findings regarding the fantasy correlates of this media use pattern support the Quadrant #3 model previously outlined, in which high levels of external stimulation-seeking accompany high levels of dysphoric and unpleasant fantasizing. It is hypothesized that media use competes with and serves to drown out the user's negative thoughts and images. Alternatively, it could be that the highly-stimulating external input produces negative fantasies in the individual consumer, or that some third variable causes both obsessional fantasizing and use of intensely stimulating media. The Quadrant #3 model has, however, primarily been described by its proponents as one in which media contents are irrelevant to fantasy and it is just their stimulation value which leads to their use. From this study's results, consumption of a pornography and sports "media diet" seems to fit this distraction-competition or "anaesthetic" model.

The Quadrant #2 model, which would postulate heavy consumption of pornography but low levels of sexual fantasy, was not supported. There was a positive correlation between self-produced sexual fantasies and pornography consumption.

The presence of high levels of hostile-aggressive fantasy in readers of violent and sexual and sports material argues for a Quad-

rant #1, "direct expression" position. Hostile fantasies appear, however, to be a part of an overall Obsessional-Emotional fantasy style, and this is more strongly in support of the Quadrant #3 view that media violence is a highly-arousing distraction from unpleasant inner states. It is certainly possible, though, that pornography may serve two types of functions at once, providing a generally arousing distraction from obsessing and a vicarious expression of hostile and heroic themes, and perhaps some reassurances of adequacy at the same time. Sports material, similarly related to rumination, may also function in both these ways, providing at once both something to attend to other than one's own thoughts, and a participatory heroic and hostile fantasy experience with the medium.

The other side of this first pattern is that persons who read a lot of printed matter, particularly the two information categories and humour, and listen to more radio programs tend to be lowest in Obsessional-Emotional fantasizing. They are also more likely to be females and have more interest in interpersonal matters. The data suggest that these people are newspaper readers who follow news, editorials, features and the comics, and who listen to radio music, news, documentaries and comedy. They are less likely to read about sports, listen to radio sportscasts or watch sports on television. At first glance, this result might be interpreted as supporting the frequently-expressed contention that radio and print are associated with a more positive fantasy life than television use

is. This is not the case, as further examination of the data soon shows.

Pattern #2: General Radio, Violent Radio & Music Magazines, Sports vs. General TV The second pattern of media use, characterized by heavy general radio listening, particularly violent radio drama, heavy sports consumption across media and heavy consumption of music-related magazines was correlated with low levels of Obsessional-Emotional fantasy and low levels of Anxious-Distractibility. This pattern was also negatively correlated, however, with Problemsolving-Interpersonal daydream style and the Positive-Vivid style of fantasy had no relation at all to this pattern of media use. In other words, though the heavy radio listener may have few unpleasant fantasies, this does not mean her/his mind is filled with pleasant ones, or with any fantasies or daydreams at all.

The second major media use-fantasy life relationship that emerged from this study seems to represent a blissful, worry-free blankness of mind at one pole, and a varied, rather neurotic and task-oriented pattern of fantasy at the other. The heavy radio listener, music magazine reader, sports fan reports very few negative ruminations, is seldom bored or distractible, and rarely daydreams about people or mulls over problems in free thought. This could perhaps be thought of as a "What--me worry?" pattern. Such an individual tends to view a variety of TV, especially sports.

Frank & Greenberg (1980) found that heavy TV sports viewing young

men gave "escape from boredom" as a frequent reason for TV use. The present study's findings are consistent with their results. The association of sports in all media with both high and low levels of Obsessional-Emotional fantasizing in the two canonical patterns indicates that sports material serves a variety of needs for a variety of individuals. It also suggests that the fantasy lives of sports-and-pornography consumers differ greatly from the fantasy lives of sports-and-radio users, though both are somewhat masculine patterns.

The Quadrant #4 model best fits this "What--me worry?" blank mind pattern, since there is no evidence of content-relevant associations, either positive or negative, between fantasies and choices from the media. There is some small support for a Quadrant #2 model in the association observed between violent radio drama listening and low levels of hostile-aggressive fantasy, but again in this case, the hostile-aggressive fantasies seem to be part of a composite Obsessional fantasy style, all components of which are missing in such listeners.

Readers of print information and humour tended to be female and high in interpersonal curiosity in daydreams, and in use of daydreams solve problems. This suggests a Quadrant #1 model of selective, current concern-related media use. Curiosity about people accompanies reading about people (newspapers, People magazine), and thinking through problems in fantasy accompanies reading about the problems of others and seeking problem-relevant information ("how-to" magazines).

Rather than both radio and print being associated with more active, involved fantasizing as previously suggested (McLuhan, 1964; J. Singer, 1980), this study's results show that only some categories of print use are so linked to fantasizing, and the most Positive-Vivid style of fantasy life did not significantly correlate with any pattern of media use in the data. An important consideration, however, is the nature of the radio contents examined in this study. They were primarily music, news, sports and comedy, and none of the nonviolent radio drama so popular with pre-television-era listeners was represented. This genre of radio entertainment seems to be in serious decline, and contemporary radio may have become a much "hotter" medium than previously, providing little opportunity for imaginal participation. To borrow a phrase from television, contemporary radio may have become "chewing gum for the ears."

In summary, pattern #1 supported a Quadrant #3 view of some media uses as a stimulating distraction from or blocking out of dysphoric obsessing. Pattern #2 generally supported a Quadrant #4 view of other media uses filling an otherwise blank mind in low-fantasy individuals. The importance of examining patterns of multiple media use is highlighted by the fact that heavy sports consumption was a component of two very different media diets, with different relationships to fantasy life.

Within-Medium Analyses

Having examined the significant multiple media diets that correlate with certain fantasy styles, this discussion now proceeds to an exposition of the fantasy life correlates of content preferences within each medium or of use of each separate medium.

Television Viewing The first apparent pattern of television use is gender and sex-role-related. Male gender and Masculinity are correlated with TV sports consumption; female gender and Femininity with nonviolent television drama (e.g. Another World, Little House on the Prairie). This simple demographic finding is unremarkable. Some evidence within this pattern to support a Quadrant #1 model of fantasy and TV use is found in the correlation of interpersonal curiosity in fantasies and viewing of interpersonally-oriented programs such as soap operas. Persons, primarily women, whose free daydreams wander to the lives of others are likely to seek out similar television fare. Thus, the sex-role influence on interpersonal curiosity seen in daydreaming also seems to some extent to apply to television program selection.

A more striking finding in the area of television viewing is the strong association of most types of viewing (except Interpersonal Information) with the same sort of Obsessional-Emotional fantasy style that characterized the print pornography and sports user. The multiple-media analyses provided only a hint that general television viewing was similarly related to this dysphoric ruminating,

but the television-only analysis demonstrated this relationship very clearly. Musical, violent dramatic, and comedy TV programs are particularly associated with this Obsessional-Emotional fantasy style and its fears of failure, guilty and hostile themes. The Quadrant #3 model of television use and fantasy, as enunciated by J. Singer (1979) is highly consistent with these data. As in the case of pornography and sports, it could be that television simultaneously provides a channel for vicarious expression of the viewer's own hostile and heroic daydreams through identification with TV heroes, as suggested by the Quadrant #1 model. These results are partially in accord with the findings (Frank & Greenberg, 1980) that persons who gave "escape from their problems" as a reason for television viewing viewed large numbers of violent and adventure programs.

Radio Listening The within-radio analysis found an unusual set of inner life correlates for a radio listening pattern high in violent drama (Johnny Chase, Mystery Theatre) and low in impersonal information (e.g. The Food Show, Quirks & Quarks). Radio listeners with this listening pattern were most likely male with traditionally masculine interests (high in impersonal-mechanical curiosity; low in interpersonal curiosity) but were high scorers on the PAQ Femininity scale. They also reported more bizarre-improbable daydreams and more auditory imagery in daydreams. This finding illuminates the correlates of the violent radio drama category, which had a large loading on the sixth principal component for media use (see

Table 10) and was important in the second overall Canonical Correlation (see Table 11).

The combination of masculine sex-typed interest and fantasy patterns and feminine sex-role suggests that this analysis may have fixed upon the rather specialized radio tastes of a group of cross-sex-typed males. No ready theoretical basis for the association of feminine sex-role and a preference for radio violence programs over radio impersonal information presents itself, and in the absence of additional data, this relationship must remain somewhat of a mystery.

The association of high levels of auditory imagery and violent radio drama listening suggests that the well-developed capacity for auditory, not visual imagery characterizes some groups of intense radio listeners. This is contrary to the commonly-held Quadrant #2 view (J. Singer, 1980) that the function of fantasy in radio use is to contribute visual and other sorts of nonauditory imagery to the listening experience. It may be that high levels of auditory imagery just happen to characterize certain groups of radio listeners, for reasons unrelated to their media use, or that radio listening of certain kinds helps develop auditory imagery skill. Visual imagery, at least for this group of listeners, is negligibly related to this pattern of radio use.

No other relationships between radio contents used and fantasy life or sex-role variables reached significance.

Print Reading The within-print analysis produced results which mirrored those found for print in the larger between-medium analyses. Preference for print sports and pornographic materials was related to male gender, hostile and heroic fantasies and lower levels of interpersonal curiosity. Preference for print interpersonal and impersonal information was related to interpersonal curiosity and female gender. The theoretical models fitting these patterns of print-fantasy relationships have been described above.

Post-Hoc Regression Analyses--Correlates of Men's and Women's Use of Each Content Type in Each Medium

Although based on less-reliable repeated multiple regression analyses, the findings of the post-hoc regression analyses (Tables 15 through 33) tentatively identify the fantasy life measures that predict specific uses of media by men and women.

Television Interpersonal Information Viewing by men was predicted by avoidance of self-reports of negatively-valued masculine traits and positively-valued feminine traits. Male viewers of this type of program tended to be high in visual imagery and able to concentrate on one topic for extended periods. Women who view such programs report few positive reactions to their own daydreams and are curious about other people. This media use variable was not importantly implicated in any of the major analyses, however, so these findings can not be considered of great significance.

Television Impersonal Information Viewing was not alone significantly

predictable for either men or women. This is another type of media use which did not figure importantly in the overall findings mentioned above.

Television Sports Viewing was highest among men who were infrequent daydreamers and were frightened by their own fantasies. This finding is consistent with both of the overall canonical correlations which showed that sports viewing was related to both the Obsessional-Emotional fantasy style and to low levels of fantasizing. Women's TV sports viewing correlated with an avoidance of problem-related daydreams and a stereotypically-masculine impersonal-mechanical interest pattern in fantasies. The negative correlation between the Problemsolving scale and sports holds in all three media for women, and for radio sports for men, suggesting that this is a very general and robust finding.

Television Sexual-Romantic Viewing, operationally, viewing of only the Love Boat program, was correlated for men with fear of failure. Sexual fantasy was the second variable to enter the regression equation for men, but was not significant. Women's viewing of Love Boat correlated with reports of many bizarre-improbable daydreams, few hostile-aggressive daydreams, and some of the less-desirable feminine sex-role attributes.

Television Musical Viewing by men was significantly predicted by guilty daydreams. Women's watching of musical programs correlated positively with heroic daydreams and mindwandering and negatively

with sexual and hostile daydreams and daydream frequency. This type of media use was not important in the larger analyses.

Television Nonviolent Drama Viewing was largely viewing of family series and soap operas. Men's viewing of this fare was predicted by their boredom. Women viewers reported many heroic daydreams and mindwandering but few guilty or personal problem-centred daydreams. This is one of the few indications in the data that TV programs may substitute for or replace viewers' own fantasy mentation about a particular topic. These results tentatively suggest that viewing others' problems on the "soaps" is highest among women who concentrate least on their own problems and guilts in fantasies, but who focus instead on heroic accomplishments. This media use category was strongly weighted in the first canonical correlation for television, contrasting with TV sports viewing weighted in the opposite direction, and reflecting gender and sex-role-related viewing patterns.

Television Violent Drama Viewing is of intrinsic interest to psychology even though this variable did not receive a heavy weight in the major analyses apart from its contribution to the General TV factor. Men who watched the most violent TV were highest in hostile and aggressive fantasies. This implies no causal direction but does support the Quadrant #1 model. Interpretation of this finding within the multivariate context of patterns previously outlined above would stress that hostile fantasies are part of the Obsessional-Emotional style,

and that violent TV programs are just one of the arousing sorts of media contents chosen by persons with such a fantasy style. There is no a priori reason why viewing violent TV can not simultaneously fulfill the Quadrant #1 and Quadrant #3 requirements, thereby providing both distraction from dysphoric inner states and direct expression via media of hostile current concerns. Women viewers of violent TV were feminine, infrequent daydreamers who reported bizarre-improbable daydreams and mindwandering. Hostile fantasies were negligibly correlated with women's violence viewing.

Television Humorous Viewing The same variables that were the most important predictors of violence viewing for men and women were the best predictors of comedy viewing: hostile-aggressive daydreams for men, and bizarre-improbable daydreams for women. This may reflect some blurring of the lines between violence and comedy, as in cartoons which were often coded for the presence of both types of content.

In summary, television program viewing, though predicted by very different sets of variables for men and women, falls into unsurprising patterns quite consistent with the canonical analyses. Fear of failure, guilt, boredom and hostile fantasies seem to predict many types of men's TV viewing. Mindwandering, bizarre-improbable daydreams and avoidance of problemsolving in daydreams predict several types of women's TV use.

Some support for all four models is seen. For example, the

Quadrant #1 model is consistent with women's interpersonal curiosity predicting interpersonal information viewing, and with men's hostile fantasies predicting violence viewing. The Quadrant #2 model is consistent with the finding that women's soap opera viewing is negatively correlated with guilty and problem-related fantasies of their own. The Quadrant #3 model is consistent with the association for men of frightened reactions, fear of failure, guilt, boredom and hostile fantasies with several types of program viewing. The Quadrant #4 model is consistent with the negative correlation of daydream frequency with sports, music, and violence viewing for women.

Radio Interpersonal Information Listening, primarily news and interview shows, was for men negatively correlated with fear of failure, positive and frightened reactions to fantasies. Although anxieties were low in men who listened to this type of program, daydreaming was not positively evaluated by them. Women listeners were accepting of their fantasies and had few achievement daydreams. This category of radio listening did not enter into any of the major patterns of findings by itself, but was heavily weighted in the General Radio factor, so should be interpreted in this larger context.

Radio Impersonal Information Listening was predicted for males by low levels of fear of failure and positive reactions to fantasy, just as radio Interpersonal Information listening was. Auditory imagery in daydreams was negatively related to listening to these factual

programs too. Females who listened to these programs were less feminine, had fewer bizarre-improbable daydreams, and had a greater need for external stimulation. This type of listening was important in the within-radio canonical analyses, contrasted with violent radio drama listening in a rather difficult-to-interpret relationship to gender and sex-role.

Radio Sports Listening was significantly negatively correlated, for both men and women, with daydreams about one's own problems. As previously mentioned, sports in all three media is consumed by women reporting low levels of problemsolving in daydreams, and the sports category is one of the most strongly related to fantasy life patterns in the whole Adult Study.

Radio Music Listening had a significant negative relationship to fear of failure for men, in keeping with the emerging trend for several types of radio programs to be consumed by men low in such fears.

Radio music was an important contributor to the General Radio factor, which, along with sports, was associated with low levels of Obsessional-Emotional daydreaming and Anxious-Distractibility. This finding is highly consistent with the overall canonical analysis. Radio music listening was not significantly predictable from sex-role or fantasy style for women.

Violent Radio Drama Listening among men was also negatively correlated with fear of failure fantasies, as well as with distractibility. Male listeners were frequent daydreamers with good auditory imagery.

Female listening was predicted by their need for external stimulation and low levels of achievement daydreams. Violent radio drama listening was very important in both the overall canonical analysis and the within-radio analysis, and has been discussed above. These findings are consistent with the aforementioned.

Radio Comedy Listening followed a by-now-familiar pattern. Men who listened to radio comedies were low in fears of failure, while women listeners were high in acceptance of daydreams. Men's sexual fantasies were predictive of radio comedy listening also. Radio comedy was a substantial component of the General Radio factor.

In summary, the findings for radio again show that different predictors are important for men and women for many types of programming. An exception is radio sports listening, which characterizes men and women who spend little time daydreaming about their problems and solutions to them. Listening to all other types of radio--information, music, violent drama, comedy--was greatest for those men lowest in fears of failure. This reflects the finding in the overall canonical analysis that General Radio listening was negatively correlated with the Obsessional-Emotional fantasy style. Although radio music listening could not be predicted for women, many other types of radio use were correlated with a need for some external stimulation and infrequent fantasies of achievement. This supports a Quadrant #4 model of women's radio use as background or distraction accompanied by little imaginal activity. Although men's and women's

radio use selections relate differently to their fantasy lives, once again there are no findings that would be unexpected from the overall canonical analyses.

Print Interpersonal Information Reading was predictable for men by low fear of failure (as radio interpersonal information) and a tendency not to endorse negative masculine trait descriptors (as TV interpersonal information). Here, then, is some suggestion of consistency across media in the correlates of consuming this type of content. The negative canonical relationship between Obsessional-Emotional daydreaming style and print information use is also reflected here for men. Women readers of this material are high in interpersonal curiosity and boredom, and low in hallucinatory-vividness of fantasies.

Print Impersonal Information Reading was greatest among men low in heroic fantasies. This is consistent with both these variables' interrelationship in the broader canonical analysis. Women's reading of such magazines was predicted by low auditory imagery and high interpersonal curiosity. Both the Interpersonal and Impersonal Information Print categories figured prominently in the Print Information & Humour factor, and the findings for their individual correlates are consistent with its relationship to fantasy style, especially for men.

Print Sports Reading, as TV and radio sports consumption, correlated negatively with problemsolving in daydreams for women. Male sports

readers were infrequent, unabsorbed fantasizers given to mind-wandering. Sports use seems to fit a Quadrant #4 model for men and women, across media.

Sexual-Romantic Print Reading was highest among men whose fantasies proceeded slowly and were infrequent, but were high in sexual content. Hostile-aggressive fantasies were correlated $+0.21$ with men's pornography reading and $+0.37$ with their sexual fantasies, though they did not significantly increase the prediction when entered on step five of the regression equation. Women's reading of pornography was predicted by boredom, curiosity about other people, and acceptance of daydreaming. Hostile fantasies were negligibly correlated with women's pornography reading (-0.01), and when the correlation of hostile fantasies with boredom was partialled out, boredom became a more significant predictor. Sexual fantasies were much less predictive of women's pornography use ($r = .14$). These findings are interesting in their own right, and are consistent with a Quadrant #1 model for both men and women, though these materials apparently fill different roles for men and women. The Quadrant #2 "substitutive" model receives no support from these results. Also not seen, when sexual-romantic print is examined in isolation, is the relationship to Obsessional-Emotional daydreaming. This apparently is clearly seen only when the media diet combining high sports and pornography use with low radio and print information use is examined. This variety of print reading figures very prominently in the canonical

analyses.

Print Musical Reading (e.g. Rolling Stone) was positively predicted by men's need for external stimulation and boredom and negatively correlated with fears of failure. For women, reading such material was negatively correlated with the hallucinatory-vividness of their fantasies.

Print Nonviolent Drama was not read by men in this sample, and no predictors of its use by females were significant.

Print Violent Drama Reading was not significantly predictable from sex-role or fantasy life for men or women.

Print Humour Reading was found for men to be negatively related to fear of failure (like radio humour and print interpersonal information and music) and to be positively correlated with hostile-aggressive daydreams (like TV humour viewing). This suggests some consistency across media for humour's relation to fantasy life, as well as some consistency within the medium for the relation of print reading to fantasy life. Men who read print humour also show a high need for external stimulation and a slow rate of mentation. The repeated association of humour and hostile fantasies is interesting for theories of humour and its relation to aggression, and deserves further study. Women who read print humour were found to be high in heroic daydreams and low in masculinity and hallucinatory-vividness of fantasies.

In summary, although the negative relation of men's fear of failure daydreams and their use of many print categories was ap-

parent from the canonical analyses, the association of boredom and need for external stimulation with many types of print use for men and women was not previously seen in overall or within-print analyses. The repeated negative correlation between the IPI Hallucinatory-Vividness scale and a number of types of women's print reading suggests that women whose fantasies are more unsettlingly intense are less likely to read print materials. In the larger canonical analyses the Hallucinatory-Vividness scale loaded on the Obsessional-Emotional fantasy style, which was negatively correlated with print use, among other things. While fear of failure, also part of this style, is more clearly predictive of print use for men, it appears that the hallucinatory-vividness portion of this component is a strong predictor for women. This suggests that the canonical finding, though particularly strong for men, has some cross-sex generality based on different parts of that multi-scale fantasy style.

To summarize the regression analyses of Tables 15 through 33, it is clear that individual media offerings (with the exception of sports) are predicted by quite different variables for men and women. This is not surprising for a number of reasons. First, the canonical analyses indicated that gender and sex-role were importantly involved in many of the fantasy-media relationships described. In the majority of cases, these individual analyses have yielded results consistent with the canonical patterns. Second, media offerings with the same content code may well be somewhat different for men and women (e.g.

Impersonal Information read by men could be Car & Driver, while for women, reading Good Housekeeping would be assigned the same code). At this exploratory level of analysis, relationships adduced are necessarily broad and perhaps overinclusive. Third, the intercorrelations among predictors in this study make it highly likely that the order of stepwise inclusion of predictors would be highly unstable from sample to sample, or that one of a set of intercorrelated predictor variables might be a better individual predictor for one sex than the other. Once such a variable enters the regression equation, accounting for the variance it shares with the set, the other highly correlated variables are relegated to much lower inclusion level, though their simple correlations with the criterion may be only slightly less than the included variable.

The reader is again cautioned that the results of the individual regression analyses are not presented with the same high degree of statistical confidence as the across-medium and within-medium canonical correlation results. Findings of the individual regression analyses must be considered suggestive at this time and employed to guide future research, rather than regarded as the final word.

One last comment concerns the fact that no significant relationships between the Positive-Vivid fantasy style and media use of any kind were found in this study. If this indeed reflects the true state of affairs, the Cassandran warnings about deleterious effects of media use on development of fantasy skills may be unwarranted.

Certainly the majority of subjects in this study grew up with TV in their homes and likely access to other media in abundance as well. More direct examination of children's fantasy capacities and patterns and their television use are required before the hypothesized influences of television viewing on the development of fantasizing can be discounted.

CHILD STUDY PILOT STUDIES

Two pilot studies, Pilot One and Pilot Two, preceded the Child Study proper.

Pilot One

This study was undertaken to determine whether the reliability of measurement of children's fantasy lives by the Imaginal Processes Inventory for Children (Rosenfeld, 1978) could be increased through individual-interview administration.

The Imaginal Processes Inventory for Children (IPI-C) was developed by Rosenfeld (1978, Reference Note 1) based on the Imaginal Processes Inventory (J. Singer & Antrobus, 1970). The IPI-C has demonstrated satisfactory relationships to other measures of children's imaginal fluency (Rosenfeld, 1978). By measuring nine different fantasy-related variables, three distinct "Fantasy Styles" were differentiated. These are: Negative-Aggressive-Absorbed, Fanciful-Scary-Vivid, and Active-Intellectual. These styles have their counterparts in the adult fantasy styles factorially-derived in major normative studies of adult daydreaming using the IPI (Giambra, 1977; J. Singer & Antrobus, 1972).

The IPI-C was developed using a sample of over 700 first- and third-graders (six- to eight-year-olds). It has one month test-retest stability for its nine subscales ranging from .39 to .67; only three of the subscales have stability coefficients below .50. Although this level of retest reliability is considered fairly good with such

young children (Johnson, 1976), these stability coefficients are not high. The author of the IPI-C notes that "method variance" contributed considerably to the scores on the Inventory and to its correlations with other group-administered paper and pencil instruments.

Pilot One determined the test-retest reliability of the IPI-C for a six-year-old sample (the lower limit of the standardization sample) when administered as an individual structured interview.

Method

Subjects

Forty-five six-year-old grade one students from two suburban Winnipeg elementary schools were interviewed with the IPI-C. Parents were sent a letter and permission form and permission was given for more than twice this number. The sample was randomly selected from these.

One child withdrew from the study before completing the first interview and was not re-tested. One other child was ill during the second stage of the study and could not be re-tested. The final sample, therefore, consisted of 43 children, tested two times, from 28 to 33 days apart.

Instrument

The Imaginal Processes Inventory for Children (Rosenfeld, 1978) was employed by the interviewers in this study. The inventory is a 45-item questionnaire dealing with fantasy frequency, contents and emotional reactions to things imagined. The IPI-C's nine subscales

are: Frequency, Aggressive, Fanciful, Absorption, Scary, Vivid, Intellectual, Action, and Negative-Anxious.

Procedure

The children were interviewed by the author and three female student assistants. Each child was interviewed twice, with a re-test interval of four weeks (or as close as conditions allowed), always by the same interviewer each time. Interviews were conducted in small available rooms in the school. The whole procedure involved the child being out of his/her classroom from ten to 15 minutes each time.

Results and Discussion

Under these conditions of administration, one month test-retest reliabilities for the subscales ranged from .30 to .65. Five subscales had reliabilities of .56 or better.

The test-retest stability coefficients of the nine IPI-C subscales are shown in Table 34). Using this individual interview procedure, Aggressive, Fanciful, Vivid, and Negative-Anxious fantasies were measured more reliably than by Rosenfeld's group administration procedure. Rosenfeld (1978) had higher test-retest reliabilities for the Frequency, Absorption, Scary, Intellectual, and Action subscales.

In both Rosenfeld's standardization and the present study, the Absorption scale was the least temporally reliable one.

Factorially, the Frequency scale was one of the most important

Table 34

Comparison of One-Month Test-Retest Reliabilities of the
 Imaginal Processes Inventory for Children:
 Individual and Group Administrations

Subscale	Individual (McIlwraith, N=43)	Group (Rosenfeld, N=55)
Daydream Frequency	.35	.59
Hostile-Aggressive	.60	.44
Fanciful	.59	.59
Absorption	.30	.39
Scary	.30	.63
Vivid	.58	.54
Intellectual	.48	.68
Action	.57	.62
Negative-Anxious	.65	.44 [*]

* (Does not include items 6, 8, and 38).

in the IPI-C in Rosenfeld's study. She commented on the contribution of impulsive response set or "method variance" to this scale's scores in her study. The individual administration yielded a less-reliable Frequency scale score, but it is impossible to say which procedure results in a score closer to the true frequencies of respondents' fantasizing.

The higher reliability of the Negative-Anxious scale in this study as compared to the Rosenfeld (1978) study may be due to the addition of items 6, 8, and 38 (fear of harm) to the scale. These items appear in the final version of the IPI-C, used in the present study, but they were added to the scale later in its construction. The test-retest reliability was calculated on an earlier version of the IPI-C which did not include these three items. The higher reliability found in this study for this scale suggests that the added items are a positive addition.

The three fantasy styles were calculated, adding items that appeared on more than one scale only once. Over a month, the reliabilities were: Negative-Aggressive-Absorbed style = .60; Fanciful-Scary-Vivid style = .61; Active-Intellectual style = .56. Combining scales in this manner partially mitigates the effects of less-reliable subscales. The Frequency scale does not enter into the computation of any of the three fantasy styles.

It must be borne in mind that no generalizations about the IPI-C itself can be made based on comparisons between two relatively

small samples (Rosenfeld = 55; McIlwraith = 43), collected by different researchers in different places, with different administration procedures. What can be said is that the individual administration of the IPI-C appears to be approximately as reliable as group administration reported by the scale's developer. The Rosenfeld sample, however, was composed of 26 first-graders and 29 third-graders. The mean age of her sample, therefore, was considerably above that of the present sample (all six-year-olds). By comparison with the level of reliability attained in Rosenfeld's older sample, the test-retest stability of the IPI-C in the present sample, though not high, was deemed acceptable for use in the Child Study. The use of Fantasy Style scores rather than individual subscales was considered most appropriate for the Child Study.

The advantage of the IPI-C is that it measures a variety of fantasy and daydream contents and processes for children, rather than conceptualizing children's fantasy capacity as a single unidimensional construct (Rosenfeld, 1978) as some earlier studies in this area had (J. Singer, 1973). The IPI-C may have done for the study of children's fantasy what the development of the IPI did for the study of adult fantasy:

It should be clear that one can not cavalierly talk of a person as a "daydreamer" without more careful examination of the pattern of his fantasies.

(J. Singer & Antrobus, 1972, p. 199)

Pilot Two

Reliable and valid measurement of children's television use has been a central problem in the area of children's media use research since its inception. Parental reports of children's television viewing tend to overestimate their children's actual viewing (Bechtel, Achelpohl & Akers, 1972). Mothers and fathers each only know about part of the child's day; children watch TV at places other than home, or without parental supervision; some parents may underreport their children's viewing of certain programs to avoid giving a bad impression to the researcher. One study reported correlations between mothers' and children's estimates of the child's daily viewing time of only .069, while estimates of Saturday viewing agreed only .221! (Greenberg, Ericson & Vlahos, 1972). Yet, the major measuring instruments for children's TV use have continued to be parental reports or diaries (J. Singer & D. Singer, 1979).

Another method that has often been used is children's own verbal reports based on questions about favourite programs (J. Singer, 1973) or lists of program titles (Rosenfeld, 1978). In these settings, children may name high-status programs that they themselves are actually not allowed to watch, or the child may not know the titles of programs that are regularly on at home or may not name programs that others choose for the family to watch. The child may not know by name programs that she/he nonetheless watches, or may know the program by another name such as the name of some character. Verbal

report measures for children obviously favour the child viewers who are more verbally-skilled, and who attend to the title as well as the content of the programs viewed.

This study was undertaken to develop and validate a technique for measuring children's television viewing that would be free from the distortion and inaccuracy often found in parental reports, by obtaining data directly from the children. This measure was also to be highly visual, in keeping with the visual nature of television, and to require a minimum of language, in order to circumvent the other problems outline above.

While this study was in progress, the author learned that Drs. Jerome and Dorothy Singer, in a soon to be published book (Note 2) have reported using a picture-recognition test, modelled on the Peabody Picture Vocabulary Test format, to validate parent report measures of preschoolers' TV viewing. Their test required the child to point to one of four pictures on a page that matched the name spoken by the tester. Parent reports and children's picture recognitions were highly correlated (D. Singer, Note 3). Their success with such a technique provides further encouragement for the use of a pictorially-based measure of children's television viewing patterns such as that developed in this pilot study.

Method

Subjects

Forty-four six-year-old children and their parents served as

subjects in this study. Forty children had two parents each; the other four had only one parent (mother). Two of the children (both from two-parent families) were absent due to illness during the retest phase and were not retested.

The children and parents were recruited by sending letters and permission forms home with nearly 200 grade one students from two suburban Winnipeg elementary schools.

Instruments

Each child was administered the Television Recognition Task (TVRT) consisting of 40 photographs of television characters and situations, mounted individually on 30 cm. square pieces of cardboard. The photographs were obtained from television networks in Canada and the United States. A listing of the programs represented in the original pool of photographs forms part of Table 35. Recognition of the photographs was scored on a data form (see Appendix VII) if the child could name either the program or any of the pictured characters, or identify them by description or imitation of some characteristic behaviour, mannerism or situation. Scoring was highly flexible (for instance, one child received credit for identifying singer Anne Murray as "the Bank of Commerce" in whose commercials she appears).

Each child was also given an 11-question interview (see Appendix VIII) which inquired about such things as the number of TV sets in the home, whether the child was allowed to eat in front of the

set, what times of the day she/he usually watched, etc.

Parents completed a Television Use Check List (TVUCL) (see Appendix IX). This instrument was produced in a manner identical to the television section of the Media Use Check List (MUCL) used in the Adult Study (see Appendix I). The TVUCL listed 419 regular television programs, excluding movies, one-time specials, non-English language programs and advertising, and was based on the Winnipeg TV listings for the two weeks preceding data collection (October 1980). For quick response, the parents had only to circle "2" if they or their child regularly viewed the program, "1" if they or the child sometimes viewed the program, or leave the item blank (automatic score of "0") if they or the child never watched the program.

Procedure

The author and two student assistants (one male, one female) tested the children individually in their schools. The procedure took only 10 to 15 minutes each time. Retesting was from 26 to 32 days later. Each child was tested both times by the same experimenter.

First, the child was asked the 11 interview questions, then asked to identify the 40 photographs of the TVRT, one at a time. Experimenters prompted for expansion of ambiguous responses, but did not provide the correct names of characters pictured or feedback as to the correctness of the child's responses.

Parents were visited twice in their homes by the author. They were each asked to complete, independently, a copy of the Television Use Check List as a report on their child's recent TV viewing habits, then to complete a second copy of the TVUCL as a report on their own personal viewing habits. Completion of these four checklists (two per parent) took only 20 to 25 minutes. The exact same procedure was repeated with the parents four weeks later (actual retest intervals ranged from 26 days to 40 days in one extreme case).

Following the second administration of the TVUCL's, the parents were debriefed as to the purpose of the pilot study and early findings. All parents tested on the first occasion were retested on the second occasion.

Results and Discussion

One month test-retest reliability of the Television Recognition Task was computed for the 42 children who had been tested twice. The reliability coefficient was .84. The internal consistency of the 40-item instrument was determined by using the LERTAP test analysis program (Nelson, 1974), and was found to be high as well: Cronbach's alpha = .72.

Two photographs in the set were identified by all the children in the study, while another six were recognized by none of the children in the first administration of the instrument. Identification frequencies for all 40 photographs are listed in Table 35.

The mean recognition score on this measure rose between the

Correlations of Children's Television Recognitions With Parents' Reports

Program Name	Identification Frequency	Fathers' Report		Mothers' Report	
		Own Viewing	Child's Viewing	Own Viewing	Child's Viewing
** Sesame Street	1.000	---	---	---	---
* Diff'rent Strokes	.325	.29	.42	-.10	.25
Wonder Woman	.950	---	---	---	---
24 Hours (Dawley)	.050	.66	.47	.16	-.07
* Electric Company	.400	-.23	.53	---	.33
Expo Baseball	.025	---	---	---	---
* American Bandstand	.200	.10	.32	.10	.32
24 Hours (Gray)	.025	.46	.70	.31	-.05
* W.K.R.P. in Cincinnati	.150	.27	.64	.49	.15
* Three's Company	.225	.11	.27	-.10	.43
24 Hours (Robertson)	.050	.66	.47	.16	-.07
* Another World	.500	.28	---	.25	.58
* Love Boat	.900	.17	.28	.28	.21
Mister Rogers' Neighbourhood	.200	---	-.01	.17	.26
Kojak	.025	---	---	---	---
* Lou Grant	.225	.17	.15	.24	---
* Little House on the Prairie	.575	.18	.16	.12	.11
Shogun	.250	---	---	---	---
* C.H.I.P.S.	.875	.29	.18	.10	.24
CBC National News (Nash)	.075	.04	---	.02	---
The Incredible Hulk	.975	.11	.16	.12	.19
* Soap	.100	---	---	---	---
24 Hours (Oake)	0.000	---	---	---	---
The White Shadow	.300	-.06	-.15	.00	-.04
* M.A.S.H.	.700	.04	.30	.06	.32
* Laverne & Shirley	.625	-.05	.19	-.17	.13
Starsky & Hutch	.125	---	---	---	---
* Alice	.425	.05	.21	.29	.33
* Captain Kangaroo	.825	.11	.23	.13	.47
The Nature of Things	.025	-.06	-.03	-.03	-.05
* Hockey Night in Canada	.100	.26	.35	.22	.23
* Fat Albert	.925	.07	.24	.07	.31
* Tommy Hunter	.050	-.04	---	.37	.70
Bugs Bunny	1.000	---	---	---	---
Hockey Night (Meeker)	0.000	---	---	---	---
* The Tonight Show	.100	.25	---	.07	.48
Happy Days	.950	.16	.10	-.01	.15
Anne Murray	0.000	---	---	---	---
The Six Million Dollar Man	.625	---	---	---	---
Search For Tomorrow	0.000	---	---	---	---

* Items included in the final scale.

** Practice item in the final scale.

--- Correlations can not be computed, due to zero frequency of parent reports for this item, or 0% or 100% identification by children.

(All correlations Spearman's ρ).

first and second testing from 14.48 to 15.45, possibly because the first administration had sensitized the children to some programs and they had attended more carefully to learn the names of characters that they had been unable to identify to criterion at the first testing. Because of the possibility of a sensitization or learning effect over repeated testing, validity computations were based only on the first administration of the TVRT.

For those 40 children from two-parent families, the child's identification of each photograph on the first administration was correlated with Fathers' report of viewing the program, Fathers' report that the child viewed the program, Mothers' report of viewing the program, and Mothers' report that the child viewed the program. These correlations were examined for 25 of the photographs. The eight photos that were identified by all or none of the children could not be correlated with any other variables, and seven other photographs were of programs not on television at the time of the study, and therefore not included on the parent Check Lists. Nonparametric correlations (Spearman's ρ) of children's identifications with parental reports of the child's and the parents' own viewing are presented in Table 35.

Item correlations of children's recognitions with Fathers' own viewing ranged from $-.23$ for The Electric Company to $+.66$ for Garth Dawley and John Robertson (local newscasters) from 24 Hours. Correlations of recognitions with Fathers' reports of their child-

ren's viewing ranged from $-.08$ for Mister Rogers' Neighbourhood to $+.70$ for Arvel Gray (local weather reporter) of 24 Hours.

Children's photo recognitions correlated with Mothers' own viewing from $.00$ for The White Shadow to $+.49$ for WKRP in Cincinnati. Correlations of photo recognitions with Mothers' reports of their children's viewing were from $-.04$ for The White Shadow to $+.70$ for Tommy Hunter.

It is apparent from examination of Table 35 that each parent was a differentially accurate reporter of the child's viewing for certain programs or times of the day. For instance, Fathers' reports of their children watching Another World or Tommy Hunter were nonexistent, while Mothers' reports that the child viewed these programs correlated with the child's identification of them from photographs $+.58$ and $+.70$ respectively. Mothers' reports of children viewing Garth Dawley and Arvel Gray of 24 Hours were correlated with their children's recognition of these characters only $-.07$ and $-.05$, while Fathers' reports of children's viewing these characters correlated with recognitions $+.47$ and $+.70$ respectively.

In some cases, children's recognition of characters from the TVRT was more highly correlated with parents' own reported viewing than their reports of their children's viewing. Children's identifications of Johnny Carson's Tonight Show correlated $+.25$ with Fathers' own viewing of that program, but $.00$ with Fathers' reports of children viewing that program. It may be that fathers

were reluctant to admit to a researcher that their six-year-old children sometimes had viewed The Tonight Show, or they might have been unaware of this fact. The same sort of pattern was observed for news programs, where parents' own viewing was a better predictor of the children's recognitions than were their reports of the children's viewing. These findings point up the importance of the strategy of obtaining information on parents' viewing habits as well. Children apparently attend to and retain some of the content of their parents' programs, whether or not the parents are aware that they are watching.

No children recognized and correctly identified Howie Meeker despite seven Fathers' and 11 Mothers' reports that the children watched Hockey Night In Canada. A photo of hockey teams was correctly identified by 10% of children, however, and correlations between recognitions of this picture, which required naming of at least one team for credit, and parent reports were .22 to .35 (Table 35).

One hundred percent of children identified Bugs Bunny, and 92.75% of fathers and 95% of mothers reported that their children viewed this show. 100% of children identified Sesame Street from its picture, while 80% of fathers and 82.5% of mothers reported that the children watched Sesame Street. No child identified a photograph from Search For Tomorrow and no parents reported that their children viewed this program. Although these 0% and 100%

recognition programs would not correlate with other variables and do not appear in the validity computations of Table 35, they strongly contribute to the impression of substantial correlation between photo recognition on the TVRT and parent reports of TV viewing. These items are, of course, not suitable for inclusion in the final version of the TVRT as they are either too easy or too difficult, but they do add further convergent validation information for the TVRT's relationship to other methods of assessing children's TV use.

The parent-completed Television Use Check Lists were scored for the same eight categories of program contents used in the Adult Study. The TVUCL's contents were categorized by the same raters, using the same definitions as in the case of the MUCL in the Adult Study. Of the 419 programs in the TVUCL, 305 were rated by the raters with 272 agreements (Cohen's $\kappa = .87$). Twenty-seven disagreements were settled by debate, 81 programs were categorized by only one rater, 5 were deleted as duplicates or non-English language programs, and 14 program codes were transferred from the MUCL archival categorizations. Twenty programs could not be located and categorized and were counted when respondents indicated viewing them. The frequency of reported viewing of these programs is listed in Appendix X).

One month test-retest reliabilities for the eight TV content categories ranged from .52 for Mothers' reports of children's

Sports and Physical Activity viewing, to .91 for Fathers' reports of their own viewing of this type of programs (see Table 36). The TVUCL appears to be a highly reliable instrument, given its length and speed of administration. From examination of Table 36 it is clear that parents were much more reliable in reporting their own TV viewing than that of their children.

Total scores on the TV Recognition Task were correlated with each of the 11 interview questions, as a further validity check. The interview total score itself had a one month test-retest reliability of .66. This total score, a combination of a wide variety of different topics, correlated only .09 with the TVRT total score. None of the interview questions correlated above .26 with the TVRT total recognition score. The highest correlation was between question #6 (Do you ever eat in front of the TV?) and the TVRT total score--a correlation of .26. This interview, therefore, provided little support for the validity of the TVRT. Of course, validation of a more-reliable instrument against a less-reliable instrument is a dubious procedure. Since parental reports of viewing required fewer inferential leaps, they were used as the validation measures.

Structure of the Final Scale

Nineteen photographs were selected from the original 40 to constitute the final version of the TVRT for use in the Child Study. These photographs are indicated by asterisk in Table 16.

Table 36

One Month Test-Retest Reliabilities of Parent
Television Use Check List Categories

Program Category	<u>Fathers' Report</u>		<u>Mothers' Report</u>	
	<u>Own</u> <u>Viewing</u>	<u>Child's</u> <u>Viewing</u>	<u>Own</u> <u>Viewing</u>	<u>Child's</u> <u>Viewing</u>
1. Interpersonal Information	.87	.84	.77	.56
2. Impersonal Information	.81	.78	.77	.60
3. Sports & Physical Activity	.91	.80	.72	.52
4. Sexual-Romantic	.70	.75	.78	.58
5. Musical	.85	.59	.85	.57
6. Nonviolent Drama	.89	.86	.89	.83
7. Violent Drama	.90	.85	.90	.88
8. Humorous	.89	.88	.90	.87

(all correlations are Pearson's r)

Thirteen photographs were selected with identification frequencies between 5% and 95%, and correlations of $+0.30$ or more with parent reports. Six other photographs that met the identification frequency criterion were included to lengthen the instrument and increase its reliability, based on correlations of $+0.25$ or more with the first 13 pictures.

Reanalysis of this reduced instrument revealed that it had a one month test-retest reliability of $+0.87$, and internal consistency estimated by Cronbach's alpha at $.73$.

The instrument also contained a "practice item" (Sesame Street photograph) which was not to be counted in the total TVRT score, making a total of 20 pictures with a maximum score for the instrument of 19.

A variety of content categories was represented in this instrument: Interpersonal Information (1 picture), Impersonal Information (2), Sport & Physical Activity (1), Romantic-Sexual (1), Musical (2), Nonviolent Drama (3), Violent Drama (1), Humorous (8). Although the original item pool contained seven Violent Drama photographs, most were too readily identified by the children, rendering them poor discriminators between heavy and light viewers.

One month test-retest stability of the eight content categories was computed for the 38 two-parent children who were tested twice with the TVRT. Table 37 presents these reliability coefficients which ranged from $.46$ to $.87$.

Table 37
One Month Test-Retest Reliabilities of
Children's Television Recognition Task Categories

<u>Program Category</u>	<u>Reliability</u>	<u>Number of Pictures</u>
1. Interpersonal Information	.48	1
2. Impersonal Information	.77	3
3. Sports & Physical Activity	.72	1
4. Sexual-Romantic	.50	1
5. Musical	.46	2
6. Nonviolent Drama	.80	3
7. Violent Drama	.75	1
8. Humourous	.87	8

(all correlations are Pearson's r)

It was concluded that the TV Recognition Task was a highly reliable, quick, easily administered instrument, with moderate correlations with parent report measures of children's TV viewing. The importance of comparing TVRT scores against both parents' reports of their own and their children's viewing as a validation strategy was made clear by the pattern of correlations which emerged. Validity data suggested that in some cases, this measure might be more accurate than parent reports of their children's viewing.

CHILD STUDY

The Child Study attempted to address the same questions as the Adult Study--the correlations between fantasy style and media use. While the Adult Study examined patterns of television, radio and print use, the Child Study examined only television use, since TV is generally much more under the discretionary control of children than is their print or radio consumption.

MethodSubjects

Eighty-two six-year-olds from three suburban Winnipeg elementary schools participated in the Child Study. Parental consent was obtained through a letter describing the research and a permission form returned to the school. Only children whose first language was English were used in the study. The ethnic composition, age and socioeconomic level of the neighbourhoods in which the schools were located were quite diverse.

The mean age of the sample was 80 months with a standard deviation of 4.7 months. Their mean IQ was 110.5 as measured by the Peabody Picture Vocabulary Test, with a standard deviation of 12.42. There were 43 boys and 39 girls in the sample.

Instruments

Children's fantasy styles were assessed using the Imaginal Processes Inventory for Children (IPI-C) (Rosenfeld, 1978) as an individual structured interview, as in Pilot One (q.v.).

Children's television use was assessed using the 20-item Television Recognition Task (TVRT), developed in Pilot Two (q.v.). The data form used for the 20-item TVRT is appended (see Appendix XI).

Children's intelligence was assessed using the Peabody Picture Vocabulary Test (PPVT), form A (Dunn, 1959).

Procedure

Four research assistants, three female and one male, administered the instruments individually to children in available small rooms in their schools. The research assistants had all participated in either Pilot One or Pilot Two, and received additional training in use of the Peabody and the other instruments.

Assistants were counterbalanced across schools, to ensure approximately equal numbers of subjects tested by each at each school, within the limits of school schedules (see Table 38). School C was proportionately underrepresented in the sample due to special activities which limited access to grade one classes, however, all the research assistants tested some subjects from school C as well as the others.

The order of administration of the instruments was chosen to minimize order effects by progressing from less-reliable instruments to more-reliable ones (IPI-C, TVRT, Peabody). This order was also chosen to avoid contamination of the IPI-C fantasy responses by exposure to the TVRT photographs.

Table 38

Breakdown of the Child Study Sample by Schools and Researchers

	Researcher				Total
	1	2	3	4	
School A	6	8	7	10	31
School B	10	9	7	8	34
School C	4	3	6	4	17
Total	20	20	20	22	<u>82</u>

Administration of all three instruments took 20 to 30 minutes per child. High levels of interest and attention were evidenced by the children.

Results

Means and standard deviations for all measured variables in the Child Study are presented in Appendix XII for the full sample, and separately for boys and girls. The simple correlations of all predictor variables with all eight categories of TV use are presented separately for boys and girls in Appendix XIII. These tables can be consulted for further clarification of the results presented below.

Because not every child correctly identified the practice item (Sesame Street picture), the TVRT was scored as a 20-item rather than as a 19-item instrument. This retained the discriminating power of all items.

As a preliminary analysis, the total scores on the TVRT were computed for each subject as the sum of correct identifications (maximum = 20). Stepwise Multiple Regression Analysis was performed with the total TVRT score as the criterion and Age, Peabody I.Q., IPI-C Fantasy Styles 1, 2 and 3, Gender (dummy coded), Schools (dummy coded) and Researchers (dummy coded) as predictors. The SPSS REGRESSION program (Nie et. al., 1970) was used for these analyses.

Dummy variables representing Researchers were forced into the

regression equations last, resulting in a nonsignificant increase in the Multiple R ($F_{3, 70} = 1.03, p > .25$). Subsequently, dummy variables representing Schools were forced into the regression equation last (leaving Researchers in the equation), again resulting in a nonsignificant increase in the Multiple R ($F_{2, 70} = 1.32, p > .25$). On this basis, Schools and Researchers were excluded from further analyses.

The results of Multiple Regression Analyses for the total TVRT scores are presented in Table 39. I.Q., Negative-Aggressive-Absorbed fantasy style, and Age were all significantly positively correlated with the TVRT total score. The Intellectual-Action fantasy style had a negligible simple correlation with total TVRT score ($r = .03$) but appeared to function as a suppressor of the Negative-Aggressive-Absorbed fantasy style, since when the former entered the regression equation with a negative beta weight, the latter became a more significant predictor of total TVRT score.

A finer-grained analysis was conducted using the Canonical Correlation feature of the Multivariate-6 program (Finn, 1978). The eight TVRT content category scores were used as criterion variables. As previously, Schools and Researchers were each forced into the Multivariate Multiple Regression equations last, resulting in a nonsignificant increase in prediction (Schools, $F_{16, 126} = 1.09, p < .37$; Researchers, $F_{24, 183} = 1.27, p < .19$). These variables were eliminated from further analyses, resulting in Canonical Correlations with

Table 39

Stepwise Multiple Regression Analysis of Children's Total
Television Recognition Scores

Predictor Variable	Multiple R	Beta	F^1	p
Peabody IQ	.47	.52	27.24	< .001
Negative-Aggressive-Absorbed	.54	.37	9.38	< .01
Age	.59	.26	7.30	< .01
Intellectual-Action	.62	-.35	6.64	< .05
Fanciful-Scary-Vivid	.63	.18	1.98	n.s.
Gender	.63	.02	0.05	n.s.

d.f. for all tests = 1, 75.

1 F tests for the beta weights at the last step of the equation evaluate the unique contribution of each variable to the regression with all other variables partialled out.

six predictors (Peabody I.Q., Age, Gender, and the three IPI-C Fantasy Styles) and eight criterion variables (the TVRT content category scores).

The hypothesis of no association between the predictor and criterion variables was rejected ($F_{48, 339} = 2.01, p < .0003$). Structure coefficients for the first canonical variate for the predictors show it to be highly correlated with Peabody I.Q. and less so with Negative-Aggressive-Absorbed fantasy style (see Table 40). This composite correlated .65 with the first canonical variate for the criterion variables, which had sizeable correlations with TV Comedy, Nonviolent Drama, and Sports and smaller correlations in the same direction with the other TV program types. This canonical correlation describes an association of verbal I.Q. score and Negative-Aggressive-Absorbed fantasies with overall general television viewing. This relationship is more pronounced for girls, although boys are heavier overall viewers of TV in all categories but comedy.

Examination of the simple correlations (Appendix XIII) showed that viewing of comedy and educational (Impersonal Information) programs were about equally associated for boys and girls with Negative-Aggressive-Absorbed fantasy style. Violent and nonviolent drama and sports viewing were more strongly associated with Negative-Aggressive-Absorbed fantasies for girls than for boys. Identification of the Johnny Carson Tonight Show picture was more strongly associated with this fantasy style for boys than it was for girls, although

Table 40

Structure Coefficients for the First Two Significant Canonical Correlations:
Children's Fantasy Style and Television Recognition Measures

Variable	Correlation With Canonical Variate	
	#1	#2
<u>Fantasy Style (Predictors)</u>		
Age	.16	-.03
Peabody IQ	.76	.19
Negative-Aggressive-Absorbed	.47	-.35
Fanciful-Scary-Vivid	.11	-.55
Intellectual-Action	.02	-.09
Gender	.26	.90
<u>Television Use (Criteria)</u>		
1. Interpersonal Information	.25	.33
2. Impersonal Information	.56	-.05
3. Sports & Physical Activity	.62	.50
4. Sexual-Romantic	.23	.19
5. Musical	.30	-.06
6. Nonviolent Drama	.67	-.23
7. Violent Drama	.53	.34
8. Humorous	.88	-.37

Test of Significance of Canonical Correlations

Correlations 1 through 6, Chi square (48 d.f.) = 90.66, $p < .0002$
 Correlations 2 through 6, Chi square (35 d.f.) = 50.30, $p < .0454$
 Correlations 3 through 6, Chi square (24 d.f.) = 29.39, $p < .2057$
 Correlations 4 through 6, Chi square (15 d.f.) = 11.77, $p < .6960$
 Correlations 5 through 6, Chi square (8 d.f.) = 4.85, $p < .7737$
 Correlations 6 through 6, Chi square (3 d.f.) = 0.76, $p < .8582$

the number of such identifications was small for both sexes.

The second canonical variate for the predictors (see Table 40) was most strongly associated with Gender and less so with Fanciful-Scary-Vivid fantasy style. It correlated .50 with the second canonical variate for the criterion variables, with which Sports, Violent Drama and Interpersonal Information (Johnny Carson) correlated positively and Comedy correlated negatively. This canonical correlation primarily reflects a gender difference in viewing and fantasy patterns, in that boys were more likely to identify sports, violent, and talk shows, and less likely to identify comedy programs, and had lower levels of Fanciful-Scary-Vivid fantasy than girls. Girls had more Fanciful-Scary-Vivid fantasies and showed the opposite viewing pattern, watching more comedies and fewer sports, violent or talk show programs.

Only the first two canonical correlations were significant (see Table 40).

Discussion

Not surprisingly, Peabody I.Q. was significantly correlated with scores on the TVRT photograph identification measure. Both instruments require verbal memory for pictures, though the Peabody requires less expressive language than the TVRT. The correlation of these two measures may represent "method variance" that the two share in common. Other studies have shown that parent-reported television viewing is negatively correlated with children's I.Q.

(J. Singer & D. Singer, 1978). It can not be assumed, then, that there is any relationship other than methodological similarity and correlation with verbal intelligence pertaining between I.Q. and amount of viewing as measured by the TVRT in this study. The question of intelligence differences can not be meaningfully addressed when television viewing is operationalized as picture naming as it has been in this study.

The relationships between fantasy style and media use were clarified by including a measure of I.Q. in the analysis, however, as it made possible estimation of the proportions of variance in the TVRT scores that were and were not correlated with intelligence. Accounting first for the variance of the TVRT scores that was correlated with I.Q. scores, the remaining correlates of TV identification scores with fantasy measures were much more clearly seen.

Children who were heavier total television viewers were found in this study to be higher on the Negative-Aggressive-Absorbed fantasy style of the IPI-C, after partialling out the effects of Age, I.Q., and other variables. These data do not enlighten us as to causation--whether TV viewing causes anxious rumination and hostile daydreams, whether such an unpleasant fantasy life is a reason for television use, or whether some third variable results in both heavy TV use and Negative-Aggressive-Absorbed fantasies. They do suggest, however, that the association of aggressive and dysphoric inner fantasies with TV viewing parallels the observed association

between TV viewing and overt acts of aggressive behaviour and expressions of negative moods in preschoolers' play (J. Singer & D. Singer, 1979).

In their study of three- and four-year-olds, the Singers reported that all types of television viewing reported by parents, except viewing of educational programs, were correlated with observed aggressive behaviour during play. In the Child Study of this Dissertation, even educational programs such as Sesame Street, Captain Kangaroo, and The Electric Company were related to Negative-Aggressive-Absorbed fantasies, as measured by the IPI-C, for both boys and girls. This may reflect the fact that viewing of educational programs by younger children might represent a larger proportion of their total viewing time, and their viewing might be more regulated by parents than is the case for the more television-wise older children in the present sample. For the six-to-seven-year-olds of this Child Study, viewing educational programs is likely just one component of, rather than an alternative to, a broader viewing pattern.

The Child Study also yielded the rather distressing finding that heavier TV-viewing children's fantasies were higher in anxieties, fears of harm and punishment, and guilty thoughts. The Singers (1979) reported that expressions of fearfulness, sadness and anger during play were related to viewing of more violent and fewer educational programs. These data are only partly consistent with their

finding, since the positive effect of viewing educational programs was not seen in the present sample and for the sample of programs used.

The Singers (1979) reported that their "Expressive Play" factor correlated with male gender and had some positive relationship to cartoon viewing. The Child Study's finding of a positive relationship between Comedy viewing (including nonviolent cartoons) and the Fanciful-Scary-Vivid fantasy style, particularly for boys, is in accord with their finding.

The Child Study's results have replicated with the IPI-C some of the Singers' findings based on other measures such as imaginative play ratings, inkblot movement responses, and interviews regarding imaginary playmates and imaginative play. Specifically, the association of general TV viewing and Negative-Aggressive-Absorbed fantasies reported in the Child Study replicates the Singers' (1979) findings for aggressive behaviour and TV viewing. They extend this observed relationship with television viewing from observed play to self-reports of private thought. The Child Study results also extend the association reported by the Singers into an older group of children, at an age at which inner fantasy is already beginning to replace overt fantasy play.

The findings of the Child Study also extend Rosenfeld's (1978) observation for boys of an association between frequency of self-reported TV viewing and the Negative-Anxious subscale of the IPI-C

to both sexes. In fact, the relationship is stronger for girls in the present sample.

This study's findings also showed that children who reported the highest levels of the most "childlike" style of fantasy--the Fanciful-Scary-Vivid style--were predominantly female and heavier viewers of comedy than of sports, violence or late-night talk shows. Rosenfeld (1978) reported that the Fanciful-Scary-Vivid style was positively correlated with feminine sex-role and negatively correlated with masculine sex-role. Although sex-role was not measured in the Child Study, the association of this style with female gender was seen.

Besides replicating and extending the findings of Rosenfeld (1978) and the Singers (1979), with a Canadian sample, this study's primary contributions are methodological. All television use measures were obtained directly from the children, without reliance on parents or other observers. Use of the IPI-C eliminated the necessity of inferring inner fantasy from overt behaviour, and gave a multidimensional picture of the children's inner life. Rather than characterizing children simply as higher or lower in "imaginativeness" this study could describe the relative frequencies of a variety of positive and negative imaginings, and demonstrated that heavy TV viewers were not "low-fantasy" children but high in fantasies of an angry, worried and brooding type.

The congruence of the present study's findings with those of

other studies in this area supports the validity of fantasy self-report using the IPI-C with such young children.

Lastly, the argument (J. Singer, 1979) that television is sought out by adults to drown out their negative thoughts, has not previously been extended to encompass children's viewing. The Child Study's results would be consistent with such a model applied to children. The Child Study findings are strikingly parallel to the findings of the Adult Study regarding the correlation of general TV viewing with hostile ruminative fantasies in adults. The IPI-C Negative-Aggressive-Absorbed fantasy style and the IPI Obsessional-Emotional fantasy style are conceptually quite similar (Rosenfeld, 1978). Might children's TV viewing, like that of adults, be a search for anaesthesia, distraction from their everyday worries and problems, a way to drown out their own unpleasant thoughts? This study's findings might be no less disturbing if it were subsequently demonstrated that the direction of causation was opposite to this--that viewing large amounts of television led to hostile and anxious fantasies, perhaps by frightening the child about her/his world. If, alternatively, some third variable were found to cause both heavy TV use and hostile, ruminative fantasies in children, the situation might be no more optimistic. The modelling and disinhibitory effects of violent TV programs are greatest for angered children. If it can be assumed that hostile-aggressive fantasies reflect a child's anger and readiness to aggress, then these

heavy-TV, hostile-fantasy children would be a high risk group for learning violence from television.

FOR FURTHER RESEARCH

That two studies of very different age groups, with very different instruments and measures, should show such a similar association between dysphoric, hostile, ruminative fantasies and general TV use suggests that the relationship may have considerable generality, and should be examined in more detail. It has been suggested (Prisuta, 1979) that viewing of TV sports, for instance, can serve as a socialization experience in which parental or societal values are transmitted through a joint media experience. It appears that sex-stereotypic patterns of viewing are acquired by the age of six, and that fanciful pretending is largely relegated to girls, although hostile and aggressive fantasies are certainly not the sole province of boys, according to the Child Study. What is needed are studies examining the fantasy lives of parents (as measured by the IPI) and the children (measured by the IPI-C) as well as data on individual and family TV viewing habits. Such a study, actually now underway, will hopefully suggest whether both media tastes and acceptable fantasy behaviours and contents are transmitted within the family.

Correlates of children's violence viewing need to be examined using a much larger sample of discriminating pictorial items from violent TV shows than was used in the Child Study here.

The observed association, for adult males, between pornography and sports consumption and dysphoric, hostile fantasies is another

worth pursuing. More detailed analysis of the fantasy life correlates of consumption of particular magazines may help to focus in on the nature of the hostility-fantasy-pornography relationship.

More information is also needed about those adults whose use of radio and sports seems to accompany a relative paucity of fantasizing. Lastly, the absence of correlations in this study between media use and the Positive-Vivid fantasy style suggests that the two may be independent. If so, further correlates of this Positive-Vivid style need to be uncovered.

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Appendix I
Media Use Check List
Adult Study

DATE _____

SEX: M F

DATE OF BIRTH _____
 Day Month Year

MAJOR IN UNIVERSITY _____

MARITAL STATUS: single married separated divorced widowed other

NUMBER OF BROTHERS _____

NUMBER OF SISTERS _____

TELEVISION USE CHECKLIST

For each of the television programs listed below, please circle the number that describes your actual viewing (NOT your liking, but your actual watching).

0 = rarely or never watch, 1 = occasionally watch, 2 = regularly watch
Work quickly.

<u>Channel Number</u>	<u>Program Name</u>			
6 (2)	Boy Dominic	0	1	2
7 (5)	Cartoons	0	1	2
(4)	Ark 11	0	1	2
(8)	Baseball	0	1	2
(11)	American Bandstand	0	1	2
6 (2)	Mister Dressup	0	1	2
7 (5)	Inside Track	0	1	2
9 (12)	Phillipine-O-Rama	0	1	2
(4)	30 Minutes	0	1	2
(11)	Pro Bowlers' Tour	0	1	2
6 (2)	Flipper	0	1	2
7 (5)	Flower Spot	0	1	2
9 (12)	700 Club	0	1	2
(4)	NHL Hockey	0	1	2
6 (2)	Hoe, Hoe, Hoe	0	1	2
7 (5)	McGowan And Co.	0	1	2
6 (2)	Sportsweekend	0	1	2
7 (5)	Wrestling	0	1	2
9 (12)	National Film Board	0	1	2
(11)	Next Step Beyond	0	1	2
(11)	Pop Goes The Country	0	1	2
7 (5)	Wide World Of Sports	0	1	2
(4)	Saddleback Superstars	0	1	2
(11)	Nashville On The Road	0	1	2
(4)	Sports Spectacular	0	1	2
(11)	Hee Haw Honeys	0	1	2
9 (12)	Celebrity Review	0	1	2
6 (2)	Mr. Chips	0	1	2
7 (5)	Lawrence Welk	0	1	2
9 (12)	Bugs Bunny	0	1	2
9 (12)	Polka Warehouse	0	1	2
(8)	Chips	0	1	2
(3)	Footsteps	0	1	2
(3)	You Will Speak Russian	0	1	2

(4)	Hee Haw	0	1	2
(8)	Whodunnit	0	1	2
6 (2)	Wild Kingdom	0	1	2
(3)	Wall Street Week	0	1	2
(8)	Highcliffe Manor	0	1	2
(11)	In Search Of	0	1	2
7 (5)	Debate	0	1	2
9 (12)	Rosie	0	1	2
(3)	Free Space	0	1	2
6 (2)	The Goodies	0	1	2
7 (5)	Kinsmen Bingo	0	1	2
9 (12)	New Quiz Kids	0	1	2
(4)	Candid Camera	0	1	2
(8)	Adam-12	0	1	2
(11)	Jokers Wild	0	1	2
6 (2)	Paper Chase	0	1	2
(12, 11)	What's Happening	0	1	2
(3)	Academy Leaders	0	1	2
(4)	Bad News Bears	0	1	2
9 (12)	Explorations	0	1	2
(4)	Billy	0	1	2
(12, 11)	Love Boat	0	1	2
(3)	Off Your Duff	0	1	2
9 (12)	Fantasy Island	0	1	2
(3)	Royal Heritage	0	1	2
6 (2)	Gallery	0	1	2
7 (5)	You Tell Us	0	1	2
9 (12)	Wrestling	0	1	2
(3)	All Star Soccer '78-'79	0	1	2
7 (5)	Kreskin	0	1	2
(4)	Gunsmoke	0	1	2
9 (12)	Sports Probe	0	1	2
(3)	World	0	1	2
6 (2)	Provincial Affairs	0	1	2
7 (5)	Profile	0	1	2
9 (12)	For Lovers Only	0	1	2
6 (2)	Hawaii Five-0	0	1	2
(3)	Austin City Limits	0	1	2
(4)	Jukebox	0	1	2
(12, 11)	Praise The Lord Club	0	1	2

(4)	Mr. Magoo	0	1	2
(4)	Dwayne Friend	0	1	2
(4)	Morris Cerullo	0	1	2
(8)	Gerald Durstine	0	1	2
(11)	Gospel Hour	0	1	2
7 (5)	University Of The Air	0	1	2
(4)	Rex Humbard	0	1	2
(8)	Religious Town Hall	0	1	2
9 (12)	Day Of Discovery	0	1	2
7 (5)	Terry Winters	0	1	2
(3)	Sesame Street	0	1	2
(8)	Oral Roberts	0	1	2
(11)	Laverne Tucker	0	1	2
9 (11, 12)	Jimmy Swaggart	0	1	2
(4)	Robert Schuller's Hour Of Power	0	1	2
7 (5)	Funtown	0	1	2
9 (12)	It Is Written	0	1	2
(3)	Misterogers	0	1	2
(11)	At Issue	0	1	2
9 (12)	Frontier Collection	0	1	2
(3)	Electric Company	0	1	2
(4)	Face The Nation	0	1	2
(11)	Animals, Animals, Ani- mals	0	1	2
9 (12)	Wilderness Theatre	0	1	2
(3)	Studio See	0	1	2
(4)	Controlling Health Care Costs	0	1	2
(8)	Messiah Church	0	1	2
(11)	Kids Are People Too	0	1	2
7 (5)	Team Showdown	0	1	2
(3)	Zoom	0	1	2
(4)	Sports Afield	0	1	2
6 (2)	Meeting Place	0	1	2
7 (5)	Federal Business Bank	0	1	2
9 (12)	Calvary Temple Worship Hour	0	1	2
(3)	Big Blue Marble	0	1	2
(4)	Three On Three	0	1	2
(8)	Jerry Falwell	0	1	2
(11)	Homer Formby	0	1	2

	(3)	Once Upon A Classic	0	1	2
	(4)	NBA Doubleheader	0	1	2
	(11)	Fishin' Hole	0	1	2
6	(2)	Country Canada	0	1	2
7	(5)	Faith To Live By	0	1	2
	(8)	Roland Martin	0	1	2
	(11)	International Champion- ship Boxing	0	1	2
6	(2)	Hymn Sing	0	1	2
	(8)	Sportsworld	0	1	2
9	(12)	Village Square	0	1	2
	(11)	American Sportsman	0	1	2
9	(12)	Upstairs, Downstairs	0	1	2
6	(2)	Paths Of The Paddle	0	1	2
	(3)	Previn And The Pitts- burgh	0	1	2
6	(2)	People Talking Back	0	1	2
7	(5)	Question Period	0	1	2
7	(5)	Untamed World	0	1	2
	(3)	The Advocates	0	1	2
	(8)	Virgil Ward	0	1	2
6	(2)	Spread Your Wings	0	1	2
7	(5)	Red Fisher	0	1	2
6	(2, 8)	Disney	0	1	2
7	(5)	Sundayscope	0	1	2
9	(12)	It's A New Day	0	1	2
	(3)	Daniel Foster, M.D.	0	1	2
	(4)	60 Minutes	0	1	2
7	(5)	Woodsmoke And Sweetgrass	0	1	2
7	(5, 11)	Osmond Family	0	1	2
9	(12)	Global Newsweek	0	1	2
	(3)	F.Y.I.	0	1	2
6	(4, 2)	All In The Family	0	1	2
	(4)	One Day At A Time	0	1	2
7	(5)	Friends	0	1	2
9	(12)	Point Blank	0	1	2
	(3)	Masterpiece Theatre-- Lillie	0	1	2
7	(5)	Wonder Woman	0	1	2
	(4)	Alice	0	1	2
	(4)	Just Friends	0	1	2

7	(5)	Quincy	0	1	2
9	(12)	What Is Truth?	0	1	2
	(3)	Spin	0	1	2
	(4)	Mary Tyler Moore Hour	0	1	2
	(8)	Weekend	0	1	2
6	(2)	The Beachcombers	0	1	2
7	(5)	W5	0	1	2
9	(12)	The War Years	0	1	2
	(3)	Monty Python	0	1	2
6	(2)	Happy Days	0	1	2
	(3)	Soccer	0	1	2
7	(5)	Forum	0	1	2
	(3)	Irish Rovers	0	1	2
	(4)	Twilight Zone Theatre	0	1	2
7	(5)	Merv Griffin	0	1	2
	(8)	Championship Tennis	0	1	2
9	(12)	This Week Today	0	1	2
9	(12)	Broadway Beat	0	1	2
9	(12)	Audubon Theatre	0	1	2
9	(12)	Doug Hall	0	1	2
	(11)	Tennessee Tuxedo	0	1	2
	(8)	Country Day	0	1	2
7	(5)	It's Your Move	0	1	2
9	(12)	Red River Showdown	0	1	2
	(4)	Sunrise Semester	0	1	2
	(11)	Rocky And Friends	0	1	2
	(11)	Underdog	0	1	2
	(11)	Farm Report	0	1	2
	(11)	Good Morning Show	0	1	2
7	(5)	Canada A. M.	0	1	2
9	(12)	Sports Probe	0	1	2
9	(12)	Money Talks	0	1	2
9	(12)	In Private Life	0	1	2
	(8)	Today	0	1	2
	(11)	Good Morning	0	1	2
9	(12)	Manitoba Morning	0	1	2
	(3)	Armchair Fitness	0	1	2
	(4)	Captain Kangaroo	0	1	2
	(3)	Over Easy	0	1	2
7	(5)	What's Cooking	0	1	2
9	(12)	Polka Dot Door	0	1	2

(8)	Card Sharks	0	1	2
(11)	Phil Donahue	0	1	2
7 (5)	Romper Room	0	1	2
9 (12)	Ed Allen	0	1	2
(4)	Whew!	0	1	2
(8)	All Star Secrets	0	1	2
6 (2)	Friendly Giant	0	1	2
6 (2)	Schools Broadcast	0	1	2
7 (5)	Mad Dash	0	1	2
9 (12)	It's A New Day	0	1	2
(4)	The Price Is Right	0	1	2
(8)	High Rollers	0	1	2
(11)	Laverne And Shirley	0	1	2
7 (5)	Today's World	0	1	2
(8)	Fortune	0	1	2
(11)	Family Feud	0	1	2
9 (12)	Manitoba Legislature Question Period	0	1	2
(4)	Young And Restless	0	1	2
(8)	Password Plus	0	1	2
(11)	\$20,000 Pyramid	0	1	2
(4)	Search For Tomorrow	0	1	2
(8)	Noonday	0	1	2
(11)	All My Children	0	1	2
9 (12)	Max The Mouse	0	1	2
6 (2)	Coronation Street	0	1	2
6 (2)	Country Joy	0	1	2
6 (2)	Reach For The Top	0	1	2
6 (2)	Leo And Me	0	1	2
7 (5)	Archie	0	1	2
9 (12)	Gong Show	0	1	2
7 (5)	Definition	0	1	2
9 (12)	Town 'N' Country	0	1	2
(4)	As The World Turns	0	1	2
(8)	Days Of Our Lives	0	1	2
(11)	Midday	0	1	2
7 (5)	Hollywood Squares	0	1	2
(11)	One Life	0	1	2
7 (5)	Alan Hamel	0	1	2
9 (12)	Doug Hall	0	1	2
(4)	The Guiding Light	0	1	2

(8)	Doctors	0	1	2
6 (2)	The Edge Of Night	0	1	2
9 (12)	Klara's Korner	0	1	2
(8)	Another World	0	1	2
(11)	General Hospital	0	1	2
6 (2)	Take Thirty	0	1	2
9 (12)	Seniors Hour	0	1	2
9 (12)	You And The Law	0	1	2
9 (12)	Crocus Country	0	1	2
9 (12)	Travel Wise	0	1	2
(4)	M.A.S.H.	0	1	2
6 (2)	Bob McLean	0	1	2
(3)	Yoga And You	0	1	2
(4)	Love Of Life	0	1	2
9 (12)	Hammy Hamster's Ad- ventures	0	1	2
(3)	Villa Alegre	0	1	2
(4)	Mike Douglas	0	1	2
(11)	The Flintstones	0	1	2
6 (2)	Sherlock Holmes	0	1	2
7 (5)	Six Million Dollar Man	0	1	2
9 (12)	Spiderman	0	1	2
(8)	Star Trek	0	1	2
(11)	Brady Bunch	0	1	2
6 (2)	Stationary Ark	0	1	2
(4)	Bewitched	0	1	2
(11)	The Lucy Show	0	1	2
6 (2)	The Partridge Family	0	1	2
9 (12)	Good Times	0	1	2
(8)	Bob Newhart	0	1	2
7 (5)	Carol Burnett	0	1	2
9 (12)	What Will They Think Of Next?	0	1	2
(3)	Bottom Line	0	1	2
(11)	The Newlywed Game	0	1	2
(3)	MacNeil-Lehrer Report	0	1	2
(4)	Mary Tyler Moore	0	1	2
9 (12, 8)	Little House On The Prairie	0	1	2
(3)	Crocket's Victory Garden	0	1	2
(4)	White Shadow	0	1	2
6 (2)	Reach For The Top	0	1	2

7	(5)	Carter Country	0	1	2
9	(12)	For Arts' Sake	0	1	2
	(3)	Generation On The Wind	0	1	2
	(11)	How The West Was Won	0	1	2
9	(12)	Alice	0	1	2
	(4)	WKRP	0	1	2
9	(12, 4)	Lou Grant	0	1	2
	(3)	Bill Moyers' Journal	0	1	2
6	(2)	Newsmagazine	0	1	2
9	(12)	Sanford And Son	0	1	2
	(3)	Dick Cavett	0	1	2
	(3)	Nova	0	1	2
	(4)	The Rockford Files	0	1	2
	(8)	The Tonight Show	0	1	2
	(11)	Police Story	0	1	2
9	(12)	Sounds Good	0	1	2
	(4)	McMillan And Wife	0	1	2
	(11)	Ironside	0	1	2
	(8)	The Tomorrow Show	0	1	2
9	(12)	Rocket Robin Hood	0	1	2
7	(5)	What's My Line?	0	1	2
7	(5)	Downright Disco	0	1	2
9	(12)	Supertrain	0	1	2
6	(2)	Science Magazine	0	1	2
	(3)	Que Pasa, U.S.A.?	0	1	2
6	(2)	NHL Playoff	0	1	2
7	(5, 8)	Cliffhangers	0	1	2
	(11)	Three's Company	0	1	2
7	(5)	Grand Old Country	0	1	2
7	(5, 11)	Taxi	0	1	2
7	(5)	Starsky And Hutch	0	1	2
7	(5)	Patsy Gallant	0	1	2
	(11)	20 - 20	0	1	2
	(8)	Eight Is Enough	0	1	2
6	(2)	Summer Evening	0	1	2
7	(5)	Headline Hunters	0	1	2
	(4)	Barnaby Jones	0	1	2
6	(2)	The World At War	0	1	2
	(11)	Dragnet	0	1	2
9	(12)	Spiderman	0	1	2
	(3)	About Thinkabout	0	1	2

7	(5)	Angie	0	1	2
	(3)	The Shakespeare Plays	0	1	2
	(4)	Jeffersons	0	1	2
	(8)	Real People	0	1	2
6	(2)	The Muppets	0	1	2
7	(5)	Winsday	0	1	2
	(4)	Miss Winslow And Son	0	1	2
	(3)	Julia Child	0	1	2
6	(2)	King Of Kensington	0	1	2
7	(5)	The New Avengers	0	1	2
6	(2)	Mork And Mindy	0	1	2
7	(5, 11)	Charlie's Angels	0	1	2
9	(12)	Live At The Forum	0	1	2
	(4)	Dear Detective	0	1	2
6	(2)	Wild Canada	0	1	2
7	(5, 11)	Vegas	0	1	2
	(4)	Kaz	0	1	2
6	(2)	The Ropers	0	1	2
7	(5)	Family	0	1	2
6	(2)	The Watson Report	0	1	2
	(11)	Police Woman	0	1	2
	(4)	Kojak	0	1	2
	(11)	Mannix	0	1	2
	(3)	Great Plains Experience	0	1	2
7	(5, 4)	Time Express	0	1	2
9	(12)	Szyszyk	0	1	2
7	(5)	Stars On Ice	0	1	2
	(11)	Barney Miller	0	1	2
7	(5)	Soap	0	1	2
7	(5, 4)	Barnaby Jones	0	1	2
	(8)	Presenting Susan Anton	0	1	2
	(11)	Doctors' Private Lives	0	1	2
7	(5)	Live It Up	0	1	2
6	(2)	Dance Fever	0	1	2
7	(5)	Canadian Crimes	0	1	2
	(3)	Wyld Ryce	0	1	2
7	(5, 8)	Diff'rent Strokes	0	1	2
9	(12)	Stars Of Tomorrow	0	1	2
	(3)	Washington Week In Re- view	0	1	2
	(4)	The Incredible Hulk	0	1	2
6	(2)	Cityscape	0	1	2

7	(5, 8)	Hello, Larry	0	1	2
9	(12)	Brothers And Sisters	0	1	2
7	(5, 4)	Dukes Of Hazzard	0	1	2
	(3)	Farm Digest	0	1	2
6	(2)	Front Page Challenge	0	1	2
9	(12)	Second City	0	1	2
6	(2)	Search For The Stars	0	1	2
7	(5)	Circus	0	1	2
9	(12)	Friday Night Fights	0	1	2
	(3)	Firing Line	0	1	2
	(4)	Dallas	0	1	2
	(8)	The Duke	0	1	2
7	(5)	Delta House	0	1	2
6	(2)	Made In Manitoba	0	1	2
	(4)	NBA Basketball	0	1	2
6	(2)	The Professionals	0	1	2
	(8)	Midnight Special	0	1	2
	(11)	Ironside	0	1	2
	(11)	Mod Squad	0	1	2
9	(12)	History Of Quebec	0	1	2
	(8)	Saturday Night Live	0	1	2
	(4)	Sunrise Semester	0	1	2
	(8)	Bay City Rollers	0	1	2
	(11)	Bullwinkle	0	1	2
	(4)	Popeye	0	1	2
	(8)	Alvin And The Chipmunks	0	1	2
	(11)	Scooby's All Stars	0	1	2
9	(12)	Canadian Heritage	0	1	2
	(8)	Fantastic Four	0	1	2
	(8)	Godzilla Super 90	0	1	2
7	(5)	Circle Square	0	1	2
	(11)	Super Friends	0	1	2
7	(5)	Huck Hound	0	1	2
7	(5)	Let's Go	0	1	2
	(4)	Tarzan	0	1	2
	(8)	Daffy Duck	0	1	2
7	(5)	George	0	1	2
	(8)	Fred And Barney	0	1	2
	(11)	Fang Face	0	1	2
7	(5)	Kidstuff	0	1	2
	(8)	The Jetsons	0	1	2

(11)	The Pink Panther	0	1	2
(4)	Space Academy	0	1	2
(8)	Buford And Galloping Ghost	0	1	2
6 (2)	This Is The Life	0	1	2
(4)	Fat Albert And The Cosby Kids	0	1	2
(8)	Fabulous Funnies	0	1	2
(4)	KXJB Fargo 5:30 Saturday News	0	1	2
6 (2)	CBC Winnipeg 6:00 Saturday News	0	1	2
(8)	WDAZ Devil's Lake 6:00 Sat. News	0	1	2
(4)	KXJB Fargo 10 p.m. News	0	1	2
(8)	WDAZ Devil's Lake 10 p.m. News	0	1	2
(11)	KTHI Fargo 10 p.m. News	0	1	2
6 (2)	CBC Winnipeg 11 p.m. The National News	0	1	2
6 (2)	CBC Winnipeg 11:20 The Local News	0	1	2
7 (5)	CTV National News	0	1	2
7 (5)	CKY Winnipeg 11:20 The Local News	0	1	2
6 (2)	CBC Winnipeg 6:00 24 Hours	0	1	2
7 (5)	CKY Winnipeg 6:00 News	0	1	2
9 (12)	CKND Winnipeg 5:30 News	0	1	2
9 (12)	CKND Wpg. 10:30 News	0	1	2
(11)	ABC 5:00 News Tonight	0	1	2
(4)	CBS 5:30 Evening News With Walter Cronkite	0	1	2
(8)	NBC Reports (Brinkley/Chancellor)	0	1	2
6 (2)	CBC Sunday Evening News	0	1	2

How many TV sets in your home? 0 1 2 3 4 5 6 or more

Do you have cable TV in your home? yes no

Do you subscribe to Public Television? yes no

Do you have colour TV in your home? yes no

RADIO USE CHECKLIST

For each of the radio programs listed below, please circle the number that describes your actual listening (NOT your liking, but actual listening).

0 = rarely or never listen to, 1 = occasionally listen to, 2 = regularly listen to
Work quickly.

Station and Program

<u>CBC-AM (990)</u>	The House	0	1	2
	The Danny Finkelman Saturday Show	0	1	2
	Johnny Chase	0	1	2
	Quirks And Quarks	0	1	2
	Metropolitan Opera	0	1	2
	Music From The Proms	0	1	2
	Anthology	0	1	2
	Music From The Shows	0	1	2
	Voice Of The Pioneer	0	1	2
	The Food Show	0	1	2
	Sunday Morning	0	1	2
	Gilmour's Albums	0	1	2
	Royal Canadian Air Farce	0	1	2
	The Entertainers	0	1	2
	Identities	0	1	2
	CBC Stage	0	1	2
	Cross Country Checkup	0	1	2
	Music	0	1	2
	Sound Of Sports	0	1	2
	Information Morning	0	1	2
	The World At Eight	0	1	2
	The World At Nine	0	1	2
	Don Harron's Morning- side	0	1	2
	Schools Broadcast	0	1	2
	R.S.V.P.	0	1	2
	The Bill Guest Show	0	1	2
	The World At Six	0	1	2
	As It Happens	0	1	2
	Doctor Bundolo's Pande- monium Medicine Show	0	1	2
	The Great Canadian Gold Rush	0	1	2
	CBC National News And Sports	0	1	2

Mostly Music	0	1	2
Nightcap	0	1	2
Eclectic Circus	0	1	2
Play It Again, Bob	0	1	2
Touch The Earth	0	1	2
Provincial Affairs	0	1	2
Yes, You're Wrong	0	1	2
90 Minutes With A Bullet	0	1	2
Sussex Drive	0	1	2
Country Road	0	1	2
Our Friends The Flickers	0	1	2
Jazz Radio Canada	0	1	2
Canada Watch	0	1	2
Our Native Land	0	1	2
Symphony Hall	0	1	2
Symphony Encores	0	1	2
Celebration	0	1	2
Friends	0	1	2
Nation's Business	0	1	2
<u>CBC-FM (98.3)</u> Weekender	0	1	2
Eclectic Circus	0	1	2
Royal Canadian Air Farce	0	1	2
Touch The Earth	0	1	2
Jazz Radio Canada	0	1	2
Metropolitan Opera	0	1	2
Gilmour's Albums	0	1	2
International Concert	0	1	2
Audience	0	1	2
The Entertainers	0	1	2
Choral Concert	0	1	2
The Musician	0	1	2
In Concert	0	1	2
Sunday Magazine	0	1	2
Symphony Hall	0	1	2
The Dance	0	1	2
Organists In Recital	0	1	2
Opera Theatre	0	1	2
Two New Hours	0	1	2
Celebration	0	1	2

	Music To Listen To			
	Jazz by	0	1	2
	Stereo Morning	0	1	2
	The World At Seven	0	1	2
	The World At Eight	0	1	2
	Mid Morning	0	1	2
	Mostly Music	0	1	2
	Off The Record	0	1	2
	Pageant Of Song	0	1	2
	Arts National	0	1	2
	The World At Six	0	1	2
	Listen To The Music	0	1	2
	Ideas	0	1	2
	Festival Recital	0	1	2
	A Little Night Music	0	1	2
	That Midnight Jazz	0	1	2
	Sound Reviews	0	1	2
	One To One	0	1	2
	Once More From The Top	0	1	2
	Opera Time	0	1	2
	Classical Guitar	0	1	2
<u>CKRC-AM (630)</u>	Bob Washington Show			
	(6 - 8 a.m.)	0	1	2
	Mike Ward Open Line			
	Show (8:30-10:30 a.m.)	0	1	2
	Boyd Kozak Mid-day Show			
	(10:30 a.m.-3 p.m.)	0	1	2
	Stan Kubicek (3-7 p.m.)	0	1	2
	Bob Privett (7-12 p.m.)	0	1	2
	Dave Williams & Paul			
	Graham, All-Night			
	Show	0	1	2
	Newscasts	0	1	2
	Sports	0	1	2
<u>CJOB-AM (680)</u>	Peter Warren (8:35-			
	11:30 a.m.)	0	1	2
	Problem Corner	0	1	2
	Eric Wells (comment)	0	1	2
	Bob Beaton (business			
	comment)	0	1	2
	Carol Partridge (6:05-			
	7 p.m.)	0	1	2
	Handyman Hotline	0	1	2
	Hockey Hotline	0	1	2

	Newscasts	0	1	2
	Sports	0	1	2
<u>CKY-AM (580)</u>	Don Percy Show (6-9 a.m)	0	1	2
	Brian Wood Show (9 a.m. - 12 noon)	0	1	2
	Kevin McKanna Show 12-3 p.m.)	0	1	2
	Jim Ripley Show (3-6 p.m.)	0	1	2
	Chuck Morgan Show (6- 9 p.m.)	0	1	2
	Dave Steele Show (9 p.m.- midnight)	0	1	2
	All-Night Show	0	1	2
	Newscasts	0	1	2
	Sports	0	1	2
<u>CFRY-AM (920)</u>	All-Night Show	0	1	2
	Wake Up With CFRY (5:30-8:35 a.m.)	0	1	2
	Closing Grain Market Quotations	0	1	2
	Farm News	0	1	2
	Instant Request Show (8:35-10:30 a.m.)	0	1	2
	Morning Devotions	0	1	2
	Manitoba Pool Grain Prices	0	1	2
	Canadian Farm News	0	1	2
	Classified Ads	0	1	2
	Diner's Club (11 a.m.- 1 p.m.)	0	1	2
	Trail 92 (1:05-4:30 p.m)	0	1	2
	Livestock Report	0	1	2
	Prairie Music (5-7 p.m)	0	1	2
	Resources News	0	1	2
	Plains City Roundup (7:05-10 p.m.)	0	1	2
	Country Music Hour (8- 9 p.m.)	0	1	2
	The Fifth Wheel Program	0	1	2
<u>CKJS-AM (810)</u>	Thru The Bible	0	1	2
	Believers' Voice Of Victory	0	1	2
	Jimmy Swaggart	0	1	2
	Peoples' Gospel Hour	0	1	2

Sound Of Revival	0	1	2
Don Gossett Crusade	0	1	2
Back To The Bible	0	1	2
World Tomorrow Program	0	1	2
Marian Hour	0	1	2
Father Justin Rosary Hour	0	1	2
Rev. Max Solbrekken	0	1	2
Marian Hour "Rosary"	0	1	2
Wings Of Healing	0	1	2
Grace Worship Hour	0	1	2
Dawn Bible	0	1	2
Back To God Hour	0	1	2
Times Of Refreshing	0	1	2
Voice Of Prophecy	0	1	2
Musical Program	0	1	2
Portage Ave. Baptist Church Live	0	1	2
Radio Bible Class	0	1	2
Lutheran Hour	0	1	2
Billy Graham	0	1	2
Free Pentecostal Church	0	1	2
Immanuel Pentecostal Church	0	1	2
<u>CJUM-FM (101)</u> Good Morning Radio	0	1	2
Morning Jazz	0	1	2
A Classical Gas	0	1	2
Noon Update	0	1	2
Winnipeg Noon	0	1	2
Rock & Roll Radio	0	1	2
Evening Update	0	1	2
Rendez-vous	0	1	2
Caribbean Scene	0	1	2
After Dark	0	1	2
11th Hour Special	0	1	2
Night Town Radio	0	1	2
Between The Buttons	0	1	2
Tuesday Date With Jazz	0	1	2
Blues, Rags And Hollers	0	1	2
Blue Yodel	0	1	2
Mostly Obscure	0	1	2
Lyrics	0	1	2

Living For The City	0	1	2
Funky Larry's	0	1	2
Downstretch	0	1	2
Soft Touch	0	1	2
Captain Jack's Sunshine Hour	0	1	2
Just Plain Folk	0	1	2
Rock House--Four Stories High	0	1	2
Sound Check	0	1	2
Impulse	0	1	2
The Children's Hour	0	1	2
Variations On A Theme	0	1	2
Sunday Jazz	0	1	2
Music Outside	0	1	2
Sunday Evening Classics	0	1	2
Integrated Circus	0	1	2
Visions	0	1	2
Fresh Rain	0	1	2
Backstage Theatre Pre- sents	0	1	2
<u>CFRW-AM (1300)</u> Bob McBride (midnight- 6 a.m.)	0	1	2
Dick Reeves (6-9 a.m)	0	1	2
Lee Marshall (9 a.m.- 12 noon)	0	1	2
Steve Jackson (noon- 4 p.m.)	0	1	2
Bobby Day (4-8 p.m)	0	1	2
Tim Bradley (8 p.m.- midnight)	0	1	2
Studio 13 (Lee Marshall)	0	1	2
Pringle Program	0	1	2
Nine O'Clock Rock (Sun.)	0	1	2
Public Affairs (Sun.)	0	1	2
Newscasts	0	1	2
Sports	0	1	2
<u>CHIQ-FM (94)</u> Rick Scott (midnight- 6 a.m.)	0	1	2
Garry Boulet (6-10 a.m)	0	1	2
Jim Darren (10 a.m - 3 p.m)	0	1	2
Robby Peel (3-7 p.m)	0	1	2
Davey Jones (7-midnight)	0	1	2

	Newscasts (QFM Report)	0	1	2
	Forum (11 p.m.)	0	1	2
	Kaleidoscope	0	1	2
	Tapestry	0	1	2
	Night At Ten	0	1	2
<u>CITI-FM (92)</u>	Andrea Samas (6-10 a.m)	0	1	2
	Bob Hesketh (comment)	0	1	2
	Chris MacGregor (10 a.m.- 2 p.m.)	0	1	2
	Musicology	0	1	2
	Terry DiMonte (3-7 p.m)	0	1	2
	Randy Nelson (7-10 p.m)	0	1	2
	Classics	0	1	2
	Craig Edwards (mid- night-6 a.m.)	0	1	2
	Weekly Album Review	0	1	2
	Sunday Classics	0	1	2
	Human Gamut	0	1	2
	Pot Pourri	0	1	2
	Mystery Theatre	0	1	2
	Jazz	0	1	2
	Newscasts	0	1	2
	Sports	0	1	2

Estimate the number of hours per day that you listen to radio:

0 1 2 3 4 5 6 7 8 9 10 11 12or more

Do you own an FM radio? yes no

PRINT USE CHECKLIST

For each of the publications listed below, please circle the number that describes your actual reading, (NOT your liking, but your actual reading).

0 = rarely or never read, 1 = occasionally read, 2 = regularly read

Work Quickly.

NewspapersWinnipeg Free Press

News	0	1	2
Editorials	0	1	2
Sports	0	1	2
Features (columns, life-style, horoscope, etc)	0	1	2
Comics	0	1	2
Advertising	0	1	2
Entertainment	0	1	2

Winnipeg Tribune

News	0	1	2
Editorials	0	1	2
Sports	0	1	2
Features (columns, life-style, horoscope, etc)	0	1	2
Comics	0	1	2
Advertising	0	1	2
Entertainment	0	1	2

Magazines and Periodicals

Maclean's	0	1	2
Time	0	1	2
Newsweek	0	1	2
Chatelaine	0	1	2
Ladies' Home Journal	0	1	2
Redbook	0	1	2
Better Homes & Gardens	0	1	2
Playboy	0	1	2
Penthouse	0	1	2
Oui	0	1	2
Rolling Stone	0	1	2
Psychology Today	0	1	2
Scientific American	0	1	2
National Geographic	0	1	2
Saturday Night	0	1	2
Sports Illustrated	0	1	2
Atlantic	0	1	2

Ms.	0	1	2
Esquire	0	1	2
Readers' Digest	0	1	2
TV Guide	0	1	2
The National Enquirer	0	1	2
People	0	1	2
Us	0	1	2
Vogue	0	1	2
Viva	0	1	2
Penthouse Forum	0	1	2
Playgirl	0	1	2
Popular Mechanics	0	1	2
Omni	0	1	2
Mechanix Illustrated	0	1	2
Harrowsmith	0	1	2
The National Lampoon	0	1	2
Mad	0	1	2
Heavy Metal	0	1	2
Winnipeg Magazine	0	1	2
Consumer Reports	0	1	2
Field And Stream	0	1	2
Harper's	0	1	2
Apartment Life	0	1	2
Saturday Review	0	1	2
Quest '79	0	1	2
High Times	0	1	2
Car And Driver	0	1	2
U.S. News And World Re- port	0	1	2
Miss Chatelaine	0	1	2
Seventeen	0	1	2
Modern Bride	0	1	2
Gourmet	0	1	2
Food & Wine	0	1	2
Inside Detective	0	1	2
Front Page Detective	0	1	2
Gentlemen's Quarterly	0	1	2
Self	0	1	2
Teen	0	1	2
After Dark	0	1	2
McCall's	0	1	2

Good Housekeeping	0	1	2
Circus Weekly	0	1	2
Fifteen Fever	0	1	2
Teen Favourites	0	1	2
Tiger Beat	0	1	2
Screen & TV	0	1	2
True Story	0	1	2
Personal Romances	0	1	2
Outside	0	1	2
Camera	0	1	2
Chopper	0	1	2
Super Vans	0	1	2
Performance Rods	0	1	2
Rod & Custom	0	1	2
The Hockey News	0	1	2
Look	0	1	2
Asimov's SF Adventure Magazine	0	1	2
Cracked	0	1	2
Soccer Illustrated	0	1	2
Tennis	0	1	2
Boxing Illustrated	0	1	2
Golf Digest	0	1	2
Sport	0	1	2
Electronics Today	0	1	2
Popular Science	0	1	2
Outdoor Canada	0	1	2
Wilderness Camping	0	1	2
Shooting	0	1	2
Guns & Amo	0	1	2
Star	0	1	2

How many books have you read (other than required reading) in the past six months?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 or more.

Appendix II

Raters' Manual for Content Analysis

Instructions to Raters

Assigning Media Offerings to Content Categories

The purpose of this task is to classify over 400 television programs, 300 radio shows, and 100 magazines into just eight types. Each of the eight different types is based on the major theme found in the content of the program, show, or magazine. Once all these hundreds of media offerings have been classified according to their theme type, it will be a simple matter to count up how many TV programs, radio shows, or magazines of a certain type a person reports watching, listening to, or reading, rather than using a great long list of the individual items. But that is for a later part of this research, where people will have filled out such lists and the job will be to determine how many things of each type they use from the media. Right now, the job for the raters is to decide which thematic type each of these hundreds of media offerings should be put in.

Several raters will be involved in these classification decisions, and we will be looking for a high degree of agreement among their decisions. In order to reach such a high degree of agreement, very clear and specific rules for classifying media offerings by type are included below.

The eight types of thematic content of media offerings are:

1. Information Interpersonal
2. Information Impersonal
3. Physical Activity
4. Sexual - Romantic
5. Musical
6. Dramatic Interpersonal
7. Dramatic Violence
8. Humorous

In the case where a particular media offering contains content relevant to more than one of the above theme categories, you may assign a maximum of two code numbers to a single program, show or magazine. The first number you assign should be the predominant type classification, and the second number should be the less central or important content theme type. Determine the relative importance of themes by which one predominates or takes up the most time or space, which is the main focus. The title may be helpful in these determinations. Do not assign two theme numbers for every program; only do this when there is clearly more than one important theme type present.

Do not omit any programs, shows, or magazines unless you are unacquainted with them, in which case, you should make a list of them on a separate sheet of paper, and a search procedure will be begun to help you.

1. Information Interpersonal

Code a media offering as "Information Interpersonal" (assign number 1) if it consists primarily of fact or opinion with a human orientation. This includes biographical information, gossip, personal disclosure, autobiography, news (most news events involve individuals or groups of people), and human documentary.

Examples: talk shows, evening news, interviews, magazines about celebrities.

Note that while news should generally be coded as Information Interpersonal, weather is considered impersonal information (code 2), and sports is coded as physical activity (code 3): Some game and contest shows may involve interpersonal information such as self-disclosures or divulging facts about others. Other game and contest shows, however, may be predominantly involved with impersonal information and facts (answering questions), physical activity (competition, stunts), or humour (arising from humorous actions or deliberately incorrect answers).

2. Information Impersonal

Code "Information Impersonal" (assign number 2) if a media offering is primarily concerned with fact or opinion on non-human topics. This includes technical or scientific information, product information, "how-to" instruction, and non-human documentary.

Examples: Automotive magazines, advice to the handyman, scientific programs about animals or resources, weather reports, stock market quotations.

Note the discussion of possible codings for game shows (in #1, above), as some of them may be codable as Information Impersonal. Note that the mere presence of persons in a periodical or program does not automatically warrant a coding of Information Interpersonal--the content of the print, sound, or pictorial material determines the coding.

3. Physical Activity

Code a media offering as "Physical Activity" (assign number 3) if it deals primarily with human movement or exertion of some sort. This can be individual or team sport, recreation and fitness, some forms of games and contests, or adventure involving physical activity.

Examples: sporting matches, announcements of scores of games, exercise lessons or instruction in some physical activity or skill, a documentary on mountain climbing.

Exclude sexual behaviour from the physical activity category, and code it #4. Interviews with athletes, coaches, commentators may be coded as #3 if they focus on the sport or activity; if they focus on the personal life of the individual, code these as information interpersonal (#1). Descriptions of sporting or exercise equipment should not be scored as physical activity, but should be coded information impersonal (#2) as product information.

Note the considerations for coding game shows (in #1, above), as some of these may be codable as physical activity.

4. Sexual - Romantic

Code a media offering as "Sexual - Romantic" (assign number 4) if it deals primarily with themes of love, affection, romantic relationships or sexual behaviour of any sort. This can include happy as well as sad affectional relations, and normative as well as unusual sexual behaviour. As well this category will include discussions of these themes in addition to actual behaviours.

Examples: erotic print or photographs, marriage or divorce-related programs or publications, contraception information.

Distinguish from information interpersonal and information impersonal on the basis of predominant focus on explicit themes of sex or romantic involvement.

5. Musical

Code a media offering as "Musical" (assign #5) if

it deals primarily with song, dance, the playing of musical instruments or recorded music. Also include in this category reviews of or descriptions of musical performance or recordings.

Examples: rock music publications, concert broadcasts, ethnic song and dance shows, recorded radio "Top 40" music.

Information about the the musicians, singers, or composers themselves as celebrities or historical figures should be coded information interpersonal (#1). In mixed comedy-variety-music programs, code on the basis of whether the music (#5), talk (#1), or comedy (#8) predominates. Remember that there is "funny" as well as serious music.

6. Dramatic Interpersonal

Code a media offering as "Dramatic Interpersonal" (assign #6) when it deals primarily with plots featuring human interaction or conflict or interaction or conflict between humans and non-human forces (the elements, animals) short of physical violence, death or property damage. Distinguish from information interpersonal by the fictional nature of dramatic interpersonal themes, the intent to entertain or portray some non-factual human behaviour through the medium of actors or animation. Fictionalized portrayals of actual present or historical events using actors instead of the actual participants may also be coded in category 6.

Examples: domestic drama series, fictional short stories, serialized drama.

Code sexual-romantic dramas as #4. Code dramatic actual accounts of interpersonal events (e.g. documentaries) as #1.

7. Dramatic Violence

Code a media offering as "Dramatic Violence" (assign number 7) if it deals with fictionalized portrayals of human interaction or conflict or human interaction or conflict with nonhuman forces (the elements, animals) that entail portrayed physical or object aggression, property damage, injury or loss of life.

Examples: crime mystery dramas, police programs,

Western gunfight portrayals, war stories.

Nonviolent fictional dramas should be coded as #6. Actual acts of real-life violence should be coded #1, if presented as news or information, but can be coded #7 if portrayed or recreated by persons other than the actual participants for entertainment value. Cartoon violence should also be coded #7.

8. Humorous

Code a media offering as "Humorous" (assign number 8) when it deals primarily with content or action designed to provoke laughter or mirth in its audience. This category includes cartoons (except when scored for dramatic violence, #7), situation comedies, comic books, satirical reviews, jokes, humorous songs and dances, etc.

Examples: satire magazines, repertory comedy programs, performances by comedians.

Some game shows can be coded #8 if funny situations or answers predominate over factual information (code #1 or #2), or physical activity (code #3). The presence of a "laugh track" or accent music in TV and radio comedies is a reliable indicator of humorous intent.

Note that there is no special category for "children's media" (TV, radio, or print). Age or sex of the intended audience is not a relevant issue in this analysis. Media offerings are to be coded purely by contents; the viewers of these programs will be determined empirically.

Religious programs are to be coded information interpersonal (#1), or musical (#5), depending on which predominates. Possibly dramatic interpersonal (#6) could be coded in the case of an inspirational religious drama.

Appendix III

Reported Use Frequencies of Unfound Media Use Check List Items--Adult Study

<u>Television</u>		<u>Radio</u>	
Jukebox	18	Studio 13	15
Space Academy	14	Weekender	5
Next Step Beyond	14	Human Gamut	4
The Professionals	14	Friends	2
How the West Was Won	11	Fifth Wheel Program	2
Card Sharks	10	Voice of the Pioneer	2
Miss Winslow & Son	9	Diner's Club	2
Billy	8	World Tomorrow	1
High Rollers	8	Times of Refreshing	1
You and the Law	6	Rev. Max Solbrekken	1
Dear Detective	6		<u>36</u>
Doctors' Private Lives	5		
Money Talks	5		
Travel Wise	4		
The Duke	4		
Whew!	3		
Hoe, Hoe, Hoe	3		
Szyszyk	3		
Fang Face	3		
Paths of the Paddle	2	<u>Print</u>	
You Tell Us	1	Quest '79	7
Crocus Country	1	After Dark	2
Country Joy	1		<u>9</u>
Red River Showdown	1		
Made In Manitoba	1		
Klara's Korner	1		
Federal Business Bank	1		
	<u>155</u>		

Appendix IV

Fully-Coded Media Use Check List Key

(Transparent overlays were photocopied from this key
for scoring the MUCL)

TELEVISION USE CHECKLIST

For each of the television programs listed below, please circle the number that describes your actual viewing (NOT your liking, but your actual watching).

0 = rarely or never watch, 1 = occasionally watch, 2 = regularly watch
Work quickly.

<u>Channel Number</u>	<u>Program Name</u>				
	Boy Dominic	0	1	2	6
	Cartoons	0	1	2	8
	Ark 11	0	1	2	6
	Baseball	0	1	2	3
	American Bandstand	0	1	2	5
	Mister Dressup	0	1	2	2
	Inside Track	0	1	2	1
	Phillipine-O-Rama	0	1	2	1
	30 Minutes	0	1	2	1
	Pro Bowlers' Tour	0	1	2	3
	Flipper	0	1	2	6
	Flower Spot	0	1	2	2
	700 Club	0	1	2	1
	NHL Hockey	0	1	2	3
	Hoe, Hoe, Hoe	0	1	2	*
	McGowan And Co.	0	1	2	1
	Sportsweekend	0	1	2	3
	Wrestling	0	1	2	3
	National Film Board	0	1	2	6
	Next Step Beyond	0	1	2	*
	Pop Goes The Country	0	1	2	5
	Wide World Of Sports	0	1	2	3
	Saddleback Superstars	0	1	2	3
	Nashville On The Road	0	1	2	5
	Sports Spectacular	0	1	2	3
	Hee Haw Honeys	0	1	2	5
	Celebrity Review	0	1	2	1
	Mr. Chips	0	1	2	2
	Lawrence Welk	0	1	2	5
	Bugs Bunny	0	1	2	8
	Polka Warehouse	0	1	2	5
	Chips	0	1	2	7
	Footsteps	0	1	2	1
	You Will Speak Russian	0	1	2	2

Hee Haw	0	1	2	8
Whodunnit	0	1	2	2
Wild Kingdom	0	1	2	2
Wall Street Week	0	1	2	1
Highcliffe Manor	0	1	2	8
In Search Of	0	1	2	1
Debate	0	1	2	2
Rosie	0	1	2	8
Free Space	0	1	2	1
The Goodies	0	1	2	8
Kinsmen Bingo	0	1	2	2
New Quiz Kids	0	1	2	2
Candid Camera	0	1	2	8
Adam-12	0	1	2	7
Jokers Wild	0	1	2	2
Paper Chase	0	1	2	6
What's Happening	0	1	2	8
Academy Leaders	0	1	2	6
Bad News Bears	0	1	2	8
Explorations	0	1	2	2
Billy	0	1	2	*
Love Boat	0	1	2	4
Off Your Duff	0	1	2	
Fantasy Island	0	1	2	6
Royal Heritage	0	1	2	1,2
Gallery	0	1	2	1
You Tell Us	0	1	2	*
Wrestling	0	1	2	3
All Star Soccer '78-'79	0	1	2	3
Kreskin	0	1	2	1
Gunsmoke	0	1	2	7
Sports Probe	0	1	2	3
World	0	1	2	1,2
Provincial Affairs	0	1	2	1
Profile	0	1	2	1
For Lovers Only	0	1	2	4
Hawaii Five-0	0	1	2	7
Austin City Limits	0	1	2	5
Jukebox	0	1	2	*
Praise The Lord Club	0	1	2	1

Mr. Magoo	0	1	2	8
Dwayne Friend	0	1	2	*
Morris Cerullo	0	1	2	*
Gerald Durstine	0	1	2	*
Gospel Hour	0	1	2	1
University Of The Air	0	1	2	2
Rex Humbard	0	1	2	1
Religious Town Hall	0	1	2	1,5
Day Of Discovery	0	1	2	1
Terry Winters	0	1	2	1
Sesame Street	0	1	2	2
Oral Roberts	0	1	2	1
Laverne Tucker	0	1	2	1
Jimmy Swaggart	0	1	2	5,1
Robert Schuller's Hour Of Power	0	1	2	5,1
Funtown	0	1	2	2
It Is Written	0	1	2	2
Misterogers	0	1	2	2
At Issue	0	1	2	1
Frontier Collection	0	1	2	1,2
Electric Company	0	1	2	2
Face The Nation	0	1	2	1
Animals, Animals, Ani- mals	0	1	2	2
Wilderness Theatre	0	1	2	2
Studio See	0	1	2	*
Controlling Health Care Costs	0	1	2	2
Messiah Church	0	1	2	1
Kids Are People Too	0	1	2	1
Team Showdown	0	1	2	3
Zoom	0	1	2	1,2
Sports Afield	0	1	2	3
Meeting Place	0	1	2	1,5
Federal Business Bank	0	1	2	*
Calvary Temple Worship Hour	0	1	2	5,1
Big Blue Marble	0	1	2	1
Three On Three	0	1	2	3
Jerry Falwell	0	1	2	1
Homer Formby	0	1	2	*

Once Upon A Classic	0	1	2	6
NBA Doubleheader	0	1	2	3
Fishin' Hole	0	1	2	3
Country Canada	0	1	2	2
Faith To Live By	0	1	2	5.1
Roland Martin	0	1	2	3
International Champion- ship Boxing	0	1	2	3
Hymn Sing	0	1	2	5
Sportsworld	0	1	2	3
Village Square	0	1	2	5.1
American Sportsman	0	1	2	3
Upstairs, Downstairs	0	1	2	6
Paths Of The Paddle	0	1	2	*
Previn And The Pitts- burgh	0	1	2	5
People Talking Back	0	1	2	1
Question Period	0	1	2	1
Untamed World	0	1	2	2.1
The Advocates	0	1	2	1
Virgil Ward	0	1	2	2
Spread Your Wings	0	1	2	6.1
Red Fisher	0	1	2	2
Disney	0	1	2	6.8
Sundayscope	0	1	2	1
It's A New Day	0	1	2	1
Daniel Foster, M.D.	0	1	2	2
60 Minutes	0	1	2	1
Woodsmoke And Sweetgrass	0	1	2	1
Osmond Family	0	1	2	5
Global Newsweek	0	1	2	1
F.Y.I.	0	1	2	*
All In The Family	0	1	2	8
One Day At A Time	0	1	2	6
Friends	0	1	2	6
Point Blank	0	1	2	1
Masterpiece Theatre--				
Lillie	0	1	2	6
Wonder Woman	0	1	2	7
Alice	0	1	2	8
Just Friends	0	1	2	8

Quincy	0	1	2	7
What Is Truth?	0	1	2	1
Spin	0	1	2	1,2
Mary Tyler Moore Hour	0	1	2	8
Weekend	0	1	2	1
The Beachcombers	0	1	2	6
W5	0	1	2	1
The War Years	0	1	2	1
Monty Python	0	1	2	8
Happy Days	0	1	2	6,8
Soccer	0	1	2	3
Forum	0	1	2	1
Irish Rovers	0	1	2	5
Twilight Zone Theatre	0	1	2	6,7
Merv Griffin	0	1	2	1
Championship Tennis	0	1	2	3
This Week Today	0	1	2	1
Broadway Beat	0	1	2	1
Audubon Theatre	0	1	2	2
Doug Hall	0	1	2	1
Tennessee Tuxedo	0	1	2	8
Country Day	0	1	2	2,1
It's Your Move	0	1	2	3
Red River Showdown	0	1	2	*
Sunrise Semester	0	1	2	*
Rocky And Friends	0	1	2	8
Underdog	0	1	2	8
Farm Report	0	1	2	2
Good Morning Show	0	1	2	1
Canada A. M.	0	1	2	1
Sports Probe	0	1	2	3
Money Talks	0	1	2	*
In Private Life	0	1	2	1
Today	0	1	2	1
Good Morning	0	1	2	1,2
Manitoba Morning	0	1	2	1,2
Armchair Fitness	0	1	2	3
Captain Kangaroo	0	1	2	2
Over Easy	0	1	2	1
What's Cooking	0	1	2	2
Polka Dot Door	0	1	2	2

Card Sharks	0	1	2	*
Phil Donahue	0	1	2	1
Romper Room	0	1	2	2
Ed Allen	0	1	2	3
Whew!	0	1	2	*
All Star Secrets	0	1	2	1
Friendly Giant	0	1	2	6
Schools Broadcast	0	1	2	2
Mad Dash	0	1	2	2
It's A New Day	0	1	2	1
The Price Is Right	0	1	2	2
High Rollers	0	1	2	*
Laverne And Shirley	0	1	2	8
Today's World	0	1	2	1
Fortune	0	1	2	2
Family Feud	0	1	2	1
Manitoba Legislature Question Period	0	1	2	1
Young And Restless	0	1	2	6
Password Plus	0	1	2	2
\$20,000 Pyramid	0	1	2	2
Search For Tomorrow	0	1	2	6
Noonday	0	1	2	1
All My Children	0	1	2	6
Max The Mouse	0	1	2	1,8
Coronation Street	0	1	2	6
Country Joy	0	1	2	*
Reach For The Top	0	1	2	2
Leo And Me	0	1	2	*
Archie	0	1	2	8
Gong Show	0	1	2	8
Definition	0	1	2	2
Town 'N' Country	0	1	2	1,2
As The World Turns	0	1	2	6
Days Of Our Lives	0	1	2	6
Midday	0	1	2	1
Hollywood Squares	0	1	2	2
One Life	0	1	2	6
Alan Hamel	0	1	2	1
Doug Hall	0	1	2	*
The Guiding Light	0	1	2	6

Doctors	0	1	2	6
The Edge Of Night	0	1	2	6
Klara's Korner	0	1	2	*
Another World	0	1	2	6
General Hospital	0	1	2	6
Take Thirty	0	1	2	1
Seniors Hour	0	1	2	1
You And The Law	0	1	2	*
Crocus Country	0	1	2	*
Travel Wise	0	1	2	*
M.A.S.H.	0	1	2	8
Bob McLean	0	1	2	1
Yoga And You	0	1	2	3
Love Of Life	0	1	2	6
Hammy Hamster's Ad- ventures	0	1	2	6
Villa Alegre	0	1	2	6,2
Mike Douglas	0	1	2	1
The Flintstones	0	1	2	8
Sherlock Holmes	0	1	2	6
Six Million Dollar Man	0	1	2	7
Spiderman	0	1	2	7
Star Trek	0	1	2	7
Brady Bunch	0	1	2	8
Stationary Ark	0	1	2	2
Bewitched	0	1	2	8
The Lucy Show	0	1	2	8
The Partridge Family	0	1	2	8,5
Good Times	0	1	2	8
Bob Newhart	0	1	2	8
Carol Burnett	0	1	2	8
What Will They Think Of Next?	0	1	2	2
Bottom Line	0	1	2	1
The Newlywed Game	0	1	2	1,8
MacNeil-Lehrer Report	0	1	2	1
Mary Tyler Moore	0	1	2	8
Little House On The Prairie	0	1	2	6
Crocket's Victory Garden	0	1	2	2
White Shadow	0	1	2	6
Reach For The Top	0	1	2	2

Carter Country	0	1	2	8
For Arts' Sake	0	1	2	
Generation On The Wind	0	1	2	
How The West Was Won	0	1	2	*
Alice	0	1	2	8
WKRP	0	1	2	8
Lou Grant	0	1	2	6,8
Bill Moyers' Journal	0	1	2	1
Newsmagazine	0	1	2	1
Sanford And Son	0	1	2	8
Dick Cavett	0	1	2	1
Nova	0	1	2	1,2
The Rockford Files	0	1	2	7
The Tonight Show	0	1	2	1
Police Story	0	1	2	7
Sounds Good	0	1	2	5
McMillan And Wife	0	1	2	7
Ironside	0	1	2	7
The Tomorrow Show	0	1	2	1
Rocket Robin Hood	0	1	2	8
What's My Line?	0	1	2	1
Downright Disco	0	1	2	5
Supertrain	0	1	2	8
Science Magazine	0	1	2	2
Que Pasa, U.S.A.?	0	1	2	8
NHL Playoff	0	1	2	3
Cliffhangers	0	1	2	6,8
Three's Company	0	1	2	8
Grand Old Country	0	1	2	5
Taxi	0	1	2	8
Starsky And Hutch	0	1	2	7
Patsy Gallant	0	1	2	5
20 - 20	0	1	2	1
Eight Is Enough	0	1	2	6
Summer Evening	0	1	2	5
Headline Hunters	0	1	2	1
Barnaby Jones	0	1	2	7
The World At War	0	1	2	1
Dragnet	0	1	2	7
Spiderman	0	1	2	
About Thinkabout	0	1	2	6

Angie	0	1	2	8
The Shakespeare Plays	0	1	2	6,7
Jeffersons	0	1	2	8
Real People	0	1	2	1
The Muppets	0	1	2	8
Winsday	0	1	2	2
Miss Winslow And Son	0	1	2	*
Julia Child	0	1	2	2
King Of Kensington	0	1	2	8
The New Avengers	0	1	2	7
Mork And Mindy	0	1	2	8
Charlie's Angels	0	1	2	7
Live At The Forum	0	1	2	5
Dear Detective	0	1	2	*
Wild Canada	0	1	2	2
Vegas	0	1	2	7
Kaz	0	1	2	6
The Ropers	0	1	2	8
Family	0	1	2	6
The Watson Report	0	1	2	1
Police Woman	0	1	2	7
Kojak	0	1	2	7
Mannix	0	1	2	7
Great Plains Experience	0	1	2	1,2
Time Express	0	1	2	6
Szyszyk	0	1	2	*
Stars On Ice	0	1	2	3,5
Barney Miller	0	1	2	8
Soap	0	1	2	8
Barnaby Jones	0	1	2	7
Presenting Susan Anton	0	1	2	5,8
Doctors' Private Lives	0	1	2	*
Live It Up	0	1	2	2
Dance Fever	0	1	2	5
Canadian Crimes	0	1	2	6
Wyld Ryce	0	1	2	*
Diff'rent Strokes	0	1	2	8
Stars Of Tomorrow	0	1	2	5
Washington Week In Re- view	0	1	2	1
The Incredible Hulk	0	1	2	7
Cityscape	0	1	2	2

Hello, Larry	0	1	2	8
Brothers And Sisters	0	1	2	8
Dukes Of Hazzard	0	1	2	8.7
Farm Digest	0	1	2	2
Front Page Challenge	0	1	2	1
Second City	0	1	2	8
Search For The Stars	0	1	2	5
Circus	0	1	2	3
Friday Night Fights	0	1	2	3
Firing Line	0	1	2	1
Dallas	0	1	2	6
The Duke	0	1	2	*
Delta House	0	1	2	8
Made In Manitoba	0	1	2	*
NBA Basketball	0	1	2	3
The Professionals	0	1	2	*
Midnight Special	0	1	2	5
Ironside	0	1	2	7
Mod Squad	0	1	2	7
History Of Quebec	0	1	2	
Saturday Night Live	0	1	2	8
Sunrise Semester	0	1	2	*
Bay City Rollers	0	1	2	5
Bullwinkle	0	1	2	8
Popeye	0	1	2	8
Alvin And The Chipmunks	0	1	2	8
Scooby's All Stars	0	1	2	8
Canadian Heritage	0	1	2	1
Fantastic Four	0	1	2	7
Godzilla Super 90	0	1	2	7
Circle Square	0	1	2	1
Super Friends	0	1	2	6
Huck Hound	0	1	2	8
Let's Go	0	1	2	6
Tarzan	0	1	2	7
Daffy Duck	0	1	2	8
George	0	1	2	8
Fred And Barney	0	1	2	8
Fang Face	0	1	2	*
Kidstuff	0	1	2	1
The Jetsons	0	1	2	8

The Pink Panther	0	1	2	8
Space Academy	0	1	2	*
Buford And Galloping Ghost	0	1	2	6
This Is The Life	0	1	2	6
Fat Albert And The Cosby Kids	0	1	2	8
Fabulous Funnies	0	1	2	8
KXJB Fargo 5:30 Saturday News	0	1	2	1
CBC Winnipeg 6:00 Saturday News	0	1	2	1
WDAZ Devil's Lake 6:00 Sat. News	0	1	2	1
KXJB Fargo 10 p.m. News	0	1	2	1
WDAZ Devil's Lake 10 p.m. News	0	1	2	1
KTHI Fargo 10 p.m. News	0	1	2	1
CBC Winnipeg 11 p.m. The National News	0	1	2	1
CBC Winnipeg 11:20 The Local News	0	1	2	1
CTV National News	0	1	2	1
CKY Winnipeg 11:20 The Local News	0	1	2	1
CBC Winnipeg 6:00 24 Hours	0	1	2	1
CKY Winnipeg 6:00 News	0	1	2	1
CKND Winnipeg 5:30 News	0	1	2	1
CKND Wpg. 10:30 News	0	1	2	1
ABC 5:00 News Tonight	0	1	2	1
CBS 5:30 Evening News With Walter Cronkite	0	1	2	1
NBC Reports (Brinkley/Chancellor)	0	1	2	1
CBC Sunday Evening News	0	1	2	1

How many TV sets in your home? 0 1 2 3 4 5 6 or more

Do you have cable TV in your home? yes no

Do you subscribe to Public Television? yes no

Do you have colour TV in your home? yes no

RADIO USE CHECKLIST

For each of the radio programs listed below, please circle the number that describes your actual listening (NOT your liking, but actual listening).

0 = rarely or never listen to, 1 = occasionally listen to, 2 = regularly listen to. Work quickly.

Station and Program

<u>CBC-AM (990)</u>	The House	0	1	2	1
	The Danny Finkelman Saturday Show	0	1	2	1,5
	Johnny Chase	0	1	2	7
	Quirks And Quarks	0	1	2	2
	Metropolitan Opera	0	1	2	5
	Music From The Proms	0	1	2	5
	Anthology	0	1	2	1
	Music From The Shows	0	1	2	5
	Voice Of The Pioneer	0	1	2	*
	The Food Show	0	1	2	2
	Sunday Morning	0	1	2	1
	Gilmour's Albums	0	1	2	5
	Royal Canadian Air Farce	0	1	2	8
	The Entertainers	0	1	2	5,1
	Identities	0	1	2	1
	CBC Stage	0	1	2	5
	Cross Country Checkup	0	1	2	1
	Music	0	1	2	5
	Sound Of Sports	0	1	2	3
	Information Morning	0	1	2	1,2
	The World At Eight	0	1	2	1
	The World At Nine	0	1	2	1
	Don Harron's Morning-side	0	1	2	1,8
	Schools Broadcast	0	1	2	2
	R.S.V.P.	0	1	2	5
	The Bill Guest Show	0	1	2	1,5
	The World At Six	0	1	2	1
	As It Happens	0	1	2	1
	Doctor Bundolo's Pandemonium Medicine Show	0	1	2	8
	The Great Canadian Gold Rush	0	1	2	5
	CBC National News And Sports	0	1	2	1,3

Mostly Music	0	1	2	5
Nightcap	0	1	2	5
Eclectic Circus	0	1	2	5
Play It Again, Bob	0	1	2	5
Touch The Earth	0	1	2	5
Provincial Affairs	0	1	2	1
Yes, You're Wrong	0	1	2	*
90 Minutes With A Bullet	0	1	2	5.1
Sussex Drive	0	1	2	1
Country Road	0	1	2	5
Our Friends The Flickers	0	1	2	2
Jazz Radio Canada	0	1	2	5
Canada Watch	0	1	2	1
Our Native Land	0	1	2	1.5
Symphony Hall	0	1	2	5
Symphony Encores	0	1	2	5
Celebration	0	1	2	5
Friends	0	1	2	*
Nation's Business	0	1	2	1
<u>CBC-FM (98.3)</u> Weekender	0	1	2	*
Eclectic Circus	0	1	2	5
Royal Canadian Air Farce	0	1	2	8
Touch The Earth	0	1	2	5
Jazz Radio Canada	0	1	2	5
Metropolitan Opera	0	1	2	5
Gilmour's Albums	0	1	2	5
International Concert	0	1	2	5
Audience	0	1	2	*
The Entertainers	0	1	2	5.1
Choral Concert	0	1	2	5
The Musician	0	1	2	1.5
In Concert	0	1	2	5
Sunday Magazine	0	1	2	1
Symphony Hall	0	1	2	5
The Dance	0	1	2	*
Organists In Recital	0	1	2	5
Opera Theatre	0	1	2	5
Two New Hours	0	1	2	5
Celebration	0	1	2	5

	Music To Listen To				
	Jazz by	0	1	2	5
	Stereo Morning	0	1	2	5
	The World At Seven	0	1	2	1
	The World At Eight	0	1	2	1
	Mid Morning	0	1	2	*
	Mostly Music	0	1	2	5
	Off The Record	0	1	2	5
	Pageant Of Song	0	1	2	5
	Arts National	0	1	2	5
	The World At Six	0	1	2	1
	Listen To The Music	0	1	2	5
	Ideas	0	1	2	1
	Festival Recital	0	1	2	5
	A Little Night Music	0	1	2	5
	That Midnight Jazz	0	1	2	5
	Sound Reviews	0	1	2	5
	One To One	0	1	2	*
	Once More From The Top	0	1	2	5
	Opera Time	0	1	2	5
	Classical Guitar	0	1	2	5
<u>CKRC-AM (630)</u>	Bob Washington Show				
	(6 - 8 a.m.)	0	1	2	5
	Mike Ward Open Line				
	Show (8:30-10:30 a.m.)	0	1	2	1
	Boyd Kozak Mid-day Show				
	(10:30 a.m.-3 p.m.)	0	1	2	5
	Stan Kubicek (3-7 p.m.)	0	1	2	5
	Bob Privett (7-12 p.m.)	0	1	2	5
	Dave Williams & Paul				
	Graham, All-Night				
	Show	0	1	2	5
	Newscasts	0	1	2	1
	Sports	0	1	2	3
<u>CJOB-AM (680)</u>	Peter Warren (8:35-				
	11:30 a.m.)	0	1	2	1
	Problem Corner	0	1	2	2
	Eric Wells (comment)	0	1	2	3
	Bob Beaton (business				
	comment)	0	1	2	2
	Carol Partridge (6:05-				
	7 p.m.)	0	1	2	1,2
	Handyman Hotline	0	1	2	2
	Hockey Hotline	0	1	2	3

	Newscasts	0	1	2	1
	Sports	0	1	2	3
<u>CKY-AM (580)</u>	Don Percy Show (6-9 a.m.)	0	1	2	5,8
	Brian Wood Show (9 a.m. - 12 noon)	0	1	2	5
	Kevin McKanna Show (12-3 p.m.)	0	1	2	5
	Jim Ripley Show (3-6 p.m.)	0	1	2	5
	Chuck Morgan Show (6-9 p.m.)	0	1	2	5
	Dave Steele Show (9 p.m.- midnight)	0	1	2	5
	All-Night Show	0	1	2	5
	Newscasts	0	1	2	1
	Sports	0	1	2	3
<u>CFRY-AM (920)</u>	All-Night Show	0	1	2	5
	Wake Up With CFRY (5:30-8:35 a.m.)	0	1	2	1,5
	Closing Grain Market Quotations	0	1	2	2
	Farm News	0	1	2	2
	Instant Request Show (8:35-10:30 a.m.)	0	1	2	5
	Morning Devotions	0	1	2	1
	Manitoba Pool Grain Prices	0	1	2	2
	Canadian Farm News	0	1	2	2
	Classified Ads	0	1	2	2
	Diner's Club (11 a.m.- 1 p.m.)	0	1	2	*
	Trail 92 (1:05-4:30 p.m.)	0	1	2	5
	Livestock Report	0	1	2	2
	Prairie Music (5-7 p.m.)	0	1	2	5
	Resources News	0	1	2	1
	Plains City Roundup (7:05-10 p.m.)	0	1	2	5
	Country Music Hour (8-9 p.m.)	0	1	2	5
	The Fifth Wheel Program	0	1	2	*
<u>CKJS-AM (810)</u>	Thru The Bible	0	1	2	1
	Believers' Voice Of Victory	0	1	2	1
	Jimmy Swaggart	0	1	2	1
	Peoples' Gospel Hour	0	1	2	1

Sound Of Revival	0	1	2		1
Don Gossett Crusade	0	1	2		1
Back To The Bible	0	1	2		1
World Tomorrow Program	0	1	2		*
Marian Hour	0	1	2		1
Father Justin Rosary Hour	0	1	2		1
Rev. Max Solbrekken	0	1	2		*
Marian Hour "Rosary"	0	1	2		1
Wings Of Healing	0	1	2		1
Grace Worship Hour	0	1	2		1
Dawn Bible	0	1	2		1
Back To God Hour	0	1	2		1
Times Of Refreshing	0	1	2		*
Voice Of Prophecy	0	1	2		1
Musical Program	0	1	2		5
Portage Ave. Baptist Church Live	0	1	2		1,5
Radio Bible Class	0	1	2		1
Lutheran Hour	0	1	2		1,5
Billy Graham	0	1	2		1
Free Pentecostal Church	0	1	2		1,5
Immanuel Pentecostal Church	0	1	2		*
<u>CJUM-FM (101)</u> Good Morning Radio	0	1	2		5,1
Morning Jazz	0	1	2		5
A Classical Gas	0	1	2		5
Noon Update	0	1	2		1
Winnipeg Noon	0	1	2		1,5
Rock & Roll Radio	0	1	2		5
Evening Update	0	1	2		1
Rendez-vous	0	1	2		5
Carribean Scene	0	1	2		5
After Dark	0	1	2		5
11th Hour Special	0	1	2		1,5
Night Town Radio	0	1	2		5
Between The Buttons	0	1	2		5
Tuesday Date With Jazz	0	1	2		5
Blues, Rags And Hollers	0	1	2		5,1
Blue Yodel	0	1	2		5,1
Mostly Obscure	0	1	2		5
Lyrics	0	1	2		5

Living For The City	0	1	2	2,1
Funky Larry's	0	1	2	5,8
Downstretch	0	1	2	1,5
Soft Touch	0	1	2	5
Captain Jack's Sunshine Hour	0	1	2	5
Just Plain Folk	0	1	2	5
Rock House--Four Stories High	0	1	2	5
Sound Check	0	1	2	5
Impulse	0	1	2	5
The Children's Hour	0	1	2	*
Variations On A Theme	0	1	2	5
Sunday Jazz	0	1	2	5
Music Outside	0	1	2	5
Sunday Evening Classics	0	1	2	5
Integrated Circus	0	1	2	5
Visions	0	1	2	*
Fresh Rain	0	1	2	5
Backstage Theatre Presents	0	1	2	8
<u>CFRW-AM (1300)</u> Bob McBride (midnight-6 a.m.)	0	1	2	5
Dick Reeves (6-9 a.m)	0	1	2	5
Lee Marshall (9 a.m.-12 noon)	0	1	2	5
Steve Jackson (noon-4 p.m.)	0	1	2	5
Bobby Day (4-8 p.m)	0	1	2	5
Tim Bradley (8 p.m.-midnight)	0	1	2	5
Studio 13 (Lee Marshall)	0	1	2	*
Pringle Program	0	1	2	5
Nine O'Clock Rock (Sun.)	0	1	2	5
Public Affairs (Sun.)	0	1	2	1
Newscasts	0	1	2	1
Sports	0	1	2	3
<u>CHIQ-FM (94)</u> Rick Scott (midnight-6 a.m.)	0	1	2	5
Garry Boulet (6-10 a.m)	0	1	2	5
Jim Darren (10 a.m - 3 p.m)	0	1	2	5
Robby Peel (3-7 p.m)	0	1	2	5
Davey Jones (7-midnight)	0	1	2	5

	Newscasts (QFM Report)	0	1	2	1
	Forum (11 p.m.)	0	1	2	1
	Kaleidoscope	0	1	2	1.5
	Tapestry	0	1	2	1.5
	Night At Ten	0	1	2	5
<u>CITI-FM (92)</u>	Andrea Samas (6-10 a.m)	0	1	2	5
	Bob Hesketh (comment)	0	1	2	1
	Chris MacGregor (10 a.m.- 2 p.m.)	0	1	2	5
	Musicology	0	1	2	5.1
	Terry DiMonte (3-7 p.m)	0	1	2	5
	Randy Nelson (7-10 p.m)	0	1	2	5
	Classics	0	1	2	5
	Craig Edwards (mid- night-6 a.m.)	0	1	2	5
	Weekly Album Review	0	1	2	5
	Sunday Classics	0	1	2	5
	Human Gamut	0	1	2	*
	Pot Pourri	0	1	2	1.5
	Mystery Theatre	0	1	2	7
	Jazz	0	1	2	5
	Newscasts	0	1	2	1
	Sports	0	1	2	3

What you listen to radio:

9 10 11 12 or more

PRINT USE CHECKLIST

For each of the publications listed below, please circle the number that describes your actual reading, (NOT your liking, but your actual reading).

0 = rarely or never read, 1 = occasionally read, 2 = regularly read

Work Quickly.

NewspapersWinnipeg Free Press

News	0	1	2	1
Editorials	0	1	2	1
Sports	0	1	2	3
Features (columns, life-style, horoscope, etc)	0	1	2	1
Comics	0	1	2	8
Advertising	0	1	2	2
Entertainment	0	1	2	2,1

Winnipeg Tribune

News	0	1	2	1
Editorials	0	1	2	1
Sports	0	1	2	3
Features (columns, life-style, horoscope, etc)	0	1	2	1
Comics	0	1	2	8
Advertising	0	1	2	2
Entertainment	0	1	2	2,1

Magazines and Periodicals

Maclean's	0	1	2	1
Time	0	1	2	1
Newsweek	0	1	2	1
Chatelaine	0	1	2	1,2
Ladies' Home Journal	0	1	2	1,2
Redbook	0	1	2	2,1
Better Homes & Gardens	0	1	2	2
Playboy	0	1	2	4
Penthouse	0	1	2	4
Oui	0	1	2	4
Rolling Stone	0	1	2	5,1
Psychology Today	0	1	2	2
Scientific American	0	1	2	2
National Geographic	0	1	2	2
Saturday Night	0	1	2	1,2
Sports Illustrated	0	1	2	3
Atlantic	0	1	2	1

Ms.	0	1	2	1
Esquire	0	1	2	1
Readers' Digest	0	1	2	1
TV Guide	0	1	2	2
The National Enquirer	0	1	2	1
People	0	1	2	1
Us	0	1	2	1
Vogue	0	1	2	2
Viva	0	1	2	4
Penthouse Forum	0	1	2	4
Playgirl	0	1	2	4
Popular Mechanics	0	1	2	2
Omni	0	1	2	2
Mechanix Illustrated	0	1	2	2
Harrowsmith	0	1	2	2
The National Lampoon	0	1	2	8
Mad	0	1	2	8
Heavy Metal	0	1	2	7,4
Winnipeg Magazine	0	1	2	2
Consumer Reports	0	1	2	2
Field And Stream	0	1	2	2
Harper's	0	1	2	1
Apartment Life	0	1	2	2
Saturday Review	0	1	2	1
Quest '79	0	1	2	*
High Times	0	1	2	2
Car And Driver	0	1	2	2
U.S. News And World Re- port	0	1	2	1
Miss Chatelaine	0	1	2	2,1
Seventeen	0	1	2	2,1
Modern Bride	0	1	2	2
Gourmet	0	1	2	2
Food & Wine	0	1	2	2
Inside Detective	0	1	2	1
Front Page Detective	0	1	2	1
Gentleman's Quarterly	0	1	2	2
Self	0	1	2	2,1
Teen	0	1	2	1,2
After Dark	0	1	2	*
McCall's	0	1	2	2,1

Good Housekeeping	0	1	2	2
Circus Weekly	0	1	2	1,5
Fifteen Fever	0	1	2	1
Teen Favourites	0	1	2	1
Tiger Beat	0	1	2	1
Screen & TV	0	1	2	1
True Story	0	1	2	4
Personal Romances	0	1	2	4
Outside	0	1	2	2
Camera	0	1	2	2
Chopper	0	1	2	2
Super Vans	0	1	2	2
Performance Rods	0	1	2	2
Rod & Custom	0	1	2	2
The Hockey News	0	1	2	3
Look	0	1	2	1
Asimov's SF Adventure Magazine	0	1	2	6
Cracked	0	1	2	8
Soccer Illustrated	0	1	2	3
Tennis	0	1	2	3
Boxing Illustrated	0	1	2	3
Golf Digest	0	1	2	3
Sport	0	1	2	3
Electronics Today	0	1	2	2
Popular Science	0	1	2	2
Outdoor Canada	0	1	2	2
Wilderness Camping	0	1	2	2
Shooting	0	1	2	2
Guns & Ammo	0	1	2	2
Star	0	1	2	1

How many books have you read (other than required reading) in the past six months?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 or more.

Adult Study Means and Standard Deviations For All Measures

Measure	Overall (N=219)		Males (N=106)		Females (N=113)	
	Mean	s.d.	Mean	s.d.	Mean	s.d.
PAQ Masculinity	20.26	4.85	20.92	4.57	19.65	5.04
PAQ Femininity	22.66	3.86	21.46	3.83	23.79	3.55
PAQ M-F	14.70	4.86	16.57	4.27	12.95	4.74
TV Interpersonal Information	10.46	9.06	11.51	10.32	9.47	7.60
TV Impersonal Information	4.13	4.87	4.54	5.65	3.75	3.98
TV Sports	5.63	7.11	8.60	7.49	3.22	5.61
TV Sexual-Romantic	0.71	0.76	0.72	0.77	0.71	0.75
TV Musical	2.51	3.55	2.67	3.27	2.36	3.81
TV Nonviolent Drama	7.78	6.46	6.89	6.10	8.62	6.70
TV Violent Drama	7.74	7.21	8.17	6.94	7.35	7.46
TV Humourous	16.15	12.22	17.13	12.78	15.22	11.64
Radio Interpersonal Info.	3.53	4.70	3.58	5.35	3.47	4.01
Radio Impersonal Info.	0.37	0.97	0.31	0.87	0.43	1.05
Radio Sports	0.80	1.81	1.07	2.29	0.55	1.16
Radio Musical	7.79	7.50	7.77	7.43	7.80	7.59
Radio Violent Drama	0.10	0.36	0.14	0.45	0.06	0.24
Radio Humourous	0.66	1.09	0.56	1.19	0.75	1.00
Print Interpersonal Info.	9.15	6.43	7.42	5.51	10.76	6.82
Print Impersonal Info.	5.70	4.43	4.56	3.58	6.76	4.89
Print Sports	1.32	2.29	1.98	2.67	0.70	1.65
Print Sexual-Romantic	0.99	1.52	1.47	1.68	0.54	1.20

Print Musical	0.15	0.44	0.18	0.49	0.12	0.37
Print Nonviolent Drama	0.00	0.07	---	---	0.01	0.09
Print Violent Drama	0.05	0.23	0.09	0.29	0.02	0.13
Print Humourous	1.60	1.52	1.76	1.49	1.45	1.54
Daydream Frequency	35.47	7.33	33.82	7.12	37.01	7.22
Absorption in Daydreams	54.08	13.53	51.04	13.29	56.83	13.19
Acceptance of Daydreaming	43.51	7.21	42.37	6.09	44.58	8.00
Positive Reactions	38.82	7.91	38.20	7.74	39.40	8.06
Frightened Reactions	29.49	9.00	28.41	8.14	30.50	9.67
Visual Imagery	35.58	9.47	34.47	8.07	36.61	10.54
Auditory Imagery	31.22	9.45	30.74	8.74	31.67	10.08
Problemsolving in Daydreams	36.34	7.67	36.48	7.21	36.20	8.11
Bizarre-Improbable Daydreams	27.73	7.76	28.04	7.04	27.44	8.40
Mindwandering	36.33	7.68	35.74	7.16	36.89	8.13
Achievement Daydreams	36.53	10.51	34.26	10.02	32.83	10.96
Hallucinatory-Vividness	23.94	9.84	24.40	9.60	25.51	10.09
Fear of Failure	23.67	8.44	24.92	8.32	22.50	8.41
Hostile-Aggressive Daydreams	26.39	9.81	28.08	8.76	24.63	10.46
Sexual Daydreams	36.58	10.96	37.68	10.01	35.56	11.74
Heroic Daydreams	26.32	10.16	28.77	9.57	24.02	10.21
Guilty Daydreams	22.12	8.83	23.70	8.82	20.64	8.62
Interpersonal Curiosity	37.55	7.50	35.35	7.05	39.62	7.34
Impersonal-Mechanical Cur.	32.95	9.44	36.76	8.93	29.38	8.49
Boredom	30.57	6.01	30.83	5.56	30.33	6.41
Mentation Rate	33.29	5.03	32.81	4.65	33.73	5.35

Distractibility	36.66	7.32	35.75	6.94	37.51	7.59
Need for Stimulation	37.10	5.01	37.16	4.65	37.04	5.34

Appendix VI

Simple Correlations of Predictors With Television, Radio & Print Contents

For Males and Females

Simple Correlations of Predictors With Television Contents

Predictor	Males & Females							
	Interpersonal Information	Impersonal Information	Sports & Physical Activity	Sexual-Romantic	Musical	Nonviolent Drama	Violent Drama	Humorous
PAQ M	-.14	-.07	-.05	-.05	-.11	-.03	.01	.00
	-.11	-.07	.08	-.17	.06	-.28	-.14	-.16
PAQ F	-.11	-.15	-.10	-.12	-.09	-.03	-.03	.01
	.03	.03	.10	.10	.00	.09	.13	.03
PAQ M-F	-.21	-.07	-.04	-.09	-.06	-.13	.02	-.03
	-.02	-.03	.01	-.17	.07	-.25	-.16	-.11
Daydream Frequency	-.07	-.13	-.20	-.01	-.16	.08	-.08	-.01
	-.09	-.09	-.08	-.01	-.20	.04	-.06	-.02
Absorption in Daydreams	-.01	.10	-.07	.17	.11	.16	.04	.08
	-.15	.05	-.08	.00	-.07	.07	.02	.06
Acceptance of Daydreaming	.05	.00	-.08	-.08	-.22	.00	-.19	.02
	-.08	-.14	-.14	-.04	-.20	-.06	-.14	-.11
Positive Reactions	-.05	.07	.03	.10	.13	.11	.08	.09
	-.30	-.13	-.14	.04	-.18	-.04	-.09	-.13
Frightened Reactions	.10	.09	.18	.22	.27	.17	.07	.02
	-.00	.07	-.08	-.05	-.01	.10	.09	.07
Visual Imagery	.12	.14	-.02	.01	.05	.08	-.06	.03
	.00	.07	.01	.09	.00	.09	.16	.03
Auditory Imagery	.11	.17	.02	.11	.15	.14	.07	.13
	-.01	.11	.03	.08	-.01	.09	.13	-.01
Problemsolving in Daydreams	.01	.04	-.04	.09	.09	-.01	-.04	-.00
	-.20	-.18	-.20	-.18	-.16	-.10	-.07	-.14

Bizarre-Improbable	.09	.17	.14	.04	.11	.21	.19	.21
	.00	.10	.10	.20	.11	.27	.21	.19
Mindwandering	-.07	-.08	-.02	.12	.09	.14	-.02	.18
	.04	.07	.00	.12	.09	.24	.21	.16
Achievement Daydreams	-.00	.15	.11	.12	.19	.14	.04	.07
	-.05	.01	-.04	.04	.04	.19	.11	.06
Hallucinatory-Vividness	.09	.12	.06	.26	.27	.19	.13	.09
	-.09	.06	.07	.02	.04	.08	.06	.01
Fear of Failure	.01	.07	.16	.30	.32	.17	.19	.08
	-.05	-.07	-.09	-.03	-.05	.07	.07	.06
Hostile-Aggressive	-.00	.19	.16	.20	.19	.24	.31	.29
	-.15	-.04	-.11	-.14	-.11	-.03	-.00	-.02
Sexual Daydreams	-.08	.01	-.05	-.08	.01	.15	.09	.05
	-.23	-.07	-.20	-.06	-.26	.09	-.07	-.04
Heroic Daydreams	.03	.09	.12	.17	.18	.21	.16	.12
	.03	.09	.07	.11	.15	.28	.20	.17
Guilty Daydreams	.02	.12	.17	.28	.35	.15	.21	.11
	-.11	-.03	-.10	-.13	-.04	-.04	.02	-.02
Interpersonal Curiosity	-.02	-.05	.04	.08	.18	.03	.04	-.04
	.10	.07	-.17	.15	.01	.21	.11	.12
Impersonal-Mechanical Cur.	.04	.14	.08	-.00	.05	.08	.11	.13
	.10	.15	.17	.07	.21	.07	.09	.07
Boredom	-.06	.03	-.01	.18	.15	.28	.17	.19
	.07	-.01	-.02	-.04	.03	.14	.20	.18
Mentation Rate	.03	.05	-.03	-.03	-.09	-.12	-.07	-.11
	.03	.13	.01	.01	-.05	.09	.00	.10
Distractibility	-.08	-.00	.02	.13	.10	.16	.14	.13
	-.04	.04	-.05	.01	-.02	.14	.18	.12
Need for Stimulation	-.03	-.03	.04	-.13	.02	-.08	.08	-.02
	-.19	-.12	-.06	-.07	-.14	-.06	-.03	-.06

Simple Correlations of Predictors With Radio Contents

Predictor	Males & Females					
	Interpersonal Information	Impersonal Information	Sports & Physical Activity	Musical	Violent Drama	Humourous
PAQ M	-.02 -.03	-.05 -.00	-.12 -.07	.00 -.01	.02 .04	.14 -.00
PAQ F	-.08 -.06	-.04 -.20	-.17 .13	.09 -.02	.21 .06	.07 -.08
PAQ M-F	.00 -.03	-.02 .13	-.09 -.13	-.00 .03	-.15 .12	-.05 -.12
Daydream Frequency	-.03 -.02	-.04 -.07	-.15 -.13	.09 -.02	.26 -.07	.09 -.00
Absorption in Daydreams	-.19 -.00	-.25 -.02	-.21 -.17	-.19 -.06	.06 -.07	-.04 .07
Acceptance of Daydreaming	.10 .21	.08 -.00	-.06 .05	.12 .09	.19 .10	.05 .25
Positive Reactions	-.30 -.00	-.29 -.02	-.21 -.16	-.18 -.01	.03 -.04	.04 .11
Frightened Reactions	-.11 .05	-.16 .01	.01 -.09	-.21 .02	-.02 -.07	-.04 .05
Visual Imagery	-.09 .06	-.12 .12	-.16 -.04	-.06 .03	.13 -.04	.03 .17
Auditory Imagery	-.07 .09	-.01 -.08	-.10 .05	.00 .03	.25 -.02	-.10 .12

Problemsolving in Daydreams	-.17	-.24	-.23	-.16	.01	.00
	-.04	.08	-.20	-.05	-.10	-.05
Bizarre-Improbable	-.07	-.09	.03	-.09	.07	-.02
	-.07	-.18	-.02	.05	.03	-.07
Mindwandering	-.04	-.08	.08	.05	.05	-.04
	-.02	.02	.00	.03	-.10	.13
Achievement Daydreams	-.19	-.22	-.13	-.15	-.10	-.00
	-.17	-.01	-.12	-.13	-.20	.03
Hallucinatory-Vividness	-.25	-.27	-.13	-.29	-.04	-.17
	-.14	-.10	-.11	-.00	-.16	-.03
Fear of Failure	-.33	-.30	-.11	-.38	-.22	-.22
	-.10	-.18	-.04	.02	-.07	-.16
Hostile-Aggressive	-.18	-.21	.02	-.09	-.16	-.02
	.01	-.05	-.07	.01	-.14	-.01
Sexual Daydreams	-.11	-.26	-.12	.01	.03	.19
	-.01	.01	-.08	.02	-.06	.09
Heroic Daydreams	-.14	-.27	-.06	-.21	-.08	-.00
	-.14	-.15	.05	.03	-.00	-.11
Guilty Daydreams	-.28	-.22	-.07	-.35	-.21	-.12
	-.03	-.13	-.04	-.02	-.09	-.13
Interpersonal Curiosity	-.01	-.05	.07	-.00	-.11	.03
	.05	-.03	-.02	.07	-.13	.02
Impersonal-Mechanical Cur.	-.03	-.03	-.03	-.06	.05	.04
	.07	-.07	.13	.08	-.00	-.12
Boredom	-.15	-.13	.01	-.05	-.06	.00
	-.12	-.03	-.05	.02	-.08	-.10
Mentation Rate	.10	.11	-.08	-.03	.05	.06
	.12	-.07	.14	.00	-.13	.18
Distractibility	-.16	-.14	.02	-.05	-.15	-.02
	.05	-.07	-.01	-.01	-.03	.11
Need for Stimulation	-.06	-.06	.08	.08	.01	.02
	.06	.22	.03	.00	.21	.11

Simple Correlations of Predictors With Print Contents

Predictor	Males & Females							
	Interpersonal Information	Impersonal Information	Sports & Physical Activity	Sexual-Romantic	Musical	Nonviolent Drama	Violent Drama	Humorous
PAQ M	.00 -.14	.10 -.13	.08 -.02	.04 -.10	.04 -.03	--- -.03	-.09 -.16	.13 -.25
PAQ F	.05 .02	.05 .03	-.02 .09	-.04 .07	-.06 -.08	--- -.07	.05 .01	.13 -.02
PAQ M-F	-.20 .04	.03 -.02	-.05 -.10	.03 -.06	-.02 .09	--- .02	-.10 .00	.01 -.06
Daydream Frequency	.04 .06	-.17 .08	-.20 .09	-.12 .16	-.02 .03	--- -.10	.07 .12	.02 .17
Absorption in Daydreams	-.02 -.13	-.16 -.14	-.25 -.15	.08 .13	-.07 -.05	--- -.03	-.03 -.04	.01 .03
Acceptance of Daydreaming	.14 .21	.07 .16	.09 -.03	.01 .12	.07 .15	--- -.10	-.09 .07	.05 .07
Positive Reactions	.01 -.05	-.15 -.05	-.17 -.18	.05 .02	-.05 .03	--- -.06	.03 -.11	.14 -.01
Frightened Reactions	-.04 -.13	-.11 -.14	-.03 -.15	.12 .04	-.13 -.09	--- .03	.12 .05	-.02 .08
Visual Imagery	.06 -.10	-.18 -.18	-.08 -.04	.05 .06	-.14 .07	--- -.01	-.12 .02	.08 -.02
Auditory Imagery	.01 -.21	-.15 -.20	-.10 -.08	.08 -.05	-.11 -.11	--- -.01	-.07 -.03	.11 -.08

Problemsolving in Daydreams	-.12	-.09	-.22	-.13	-.17	---	-.14	-.03
	-.07	-.16	-.24	.06	.02	.08	-.02	-.01
Bizarre-Improbable	.05	-.03	-.01	.05	.02	---	.13	.07
	-.02	.10	-.02	.11	-.02	.13	.15	.09
Mindwandering	.14	-.04	.08	.06	.04	---	-.00	.09
	-.01	-.01	.07	.19	-.02	-.07	.07	.18
Achievement Daydreams	.04	-.17	-.10	.05	-.10	---	.05	-.06
	-.02	.01	-.06	.09	-.10	.06	-.03	.11
Hallucinatory-Vividness	-.03	-.12	-.18	.14	-.09	---	.04	-.06
	-.29	-.18	-.08	.01	-.21	.02	-.05	-.14
Fear of Failure	-.22	-.19	-.20	.05	-.20	---	.13	-.11
	-.10	-.00	-.09	-.00	-.05	.14	.06	.06
Hostile-Aggressive	-.07	-.14	-.12	.21	-.01	---	.10	.25
	-.14	-.09	-.12	-.01	-.03	.04	-.03	-.01
Sexual Daydreams	.13	-.09	-.06	.21	.10	---	.11	.22
	.10	.07	-.05	.14	.09	-.07	-.02	.15
Heroic Daydreams	-.08	-.24	-.16	.11	-.14	---	.02	.06
	-.08	.00	-.07	.02	-.07	.06	-.05	.19
Guilty Daydreams	-.11	-.12	-.15	.16	-.12	---	.10	.00
	-.16	-.11	-.15	-.01	-.10	.05	-.01	-.02
Interpersonal Curiosity	.10	.04	.04	.11	-.14	---	.08	-.11
	.25	.19	-.18	.16	.13	.07	-.01	.15
Impersonal-Mechanical Cur.	-.21	.12	-.13	-.00	-.21	---	-.12	-.04
	.00	-.03	-.02	-.02	-.07	.07	.05	-.04
Boredom	.07	-.18	-.12	.06	.18	---	.18	.12
	.06	.08	.10	.22	-.04	.07	.09	.02
Mentation Rate	-.03	.04	-.04	-.24	-.08	---	-.00	-.19
	.13	.02	.06	-.02	.08	-.05	.02	.15
Distractibility	.05	-.08	-.02	.03	-.04	---	-.00	-.11
	.01	.09	.05	.16	-.14	.07	-.14	.00
Need for Stimulation	.12	-.08	.07	-.10	.23	---	.14	.27
	-.03	-.04	-.03	-.05	.03	-.02	-.01	.08

Appendix VII

Television Recognition Task Scoring Form

Pilot Two

McTVRT #1 #2
 Name _____ School _____
 Class _____ Birthdate _____
 Sex M F Interviewer _____ Date _____

<u>Photo</u>	<u>Score</u>		<u>Acceptables</u>	<u>Record Response</u>
	+	-		
1.	+	-	<u>Sesame Street</u> Big Bird, Bob (McGrath)	
2.	+	-	<u>Diff'rent Strokes</u> Willis, Arnold, Mr. Drucker, (describe adoption)	
3.	+	-	<u>Wonder Woman</u> Diana Prince, (describe costume change)	
4.	+	-	<u>24 Hours</u> Garth (Dawley), the news man	
5.	+	-	<u>The Electric Company</u> Paul the Gorilla, Easy Reader, Fargo North Decoder, Igor, the Director, Jenifer of the Jungle, the Librarian, Spiderman (alone not credited).	
6.	+	-	<u>Montreal Expos Baseball</u> #8 (Gary) Carter, Expos, Montreal, ("baseball player" alone not credited)	
7.	+	-	<u>American Bandstand</u> Dick Clark, (describe program format)	
8.	+	-	<u>24 Hours</u> Arvel (Gray), the weather person	
9.	+	-	<u>WKRP In Cincinnati</u> Les, Mr. Carlson, Venus, Herb, Travis, Jenifer, Dr. Johnny Fever (or disc jockey description), Bayley, (description of radio station)	

10. + - Three's Company
Janet, Chrissie, Jack
(living arrangements)
11. + - 24 Hours
John Robertson
the man who interviews people (asks questions)
the news man
12. + - Another World
Rachel (Corey)
Mac (Corey)
13. + - Love Boat
Capt. Steubing, Doc,
Julie, Gopher, Isaac,
14. + - Mister Rogers Neighbourhood
Mr. Rogers
15. + - Kojak
16. + - Lou Grant
(also accept Mary Tyler Moore's boss)
(newsroom description)
17. + - Little House on the Prairie
Charles (Ingalls), Caroline,
Mary, Laura, Carrie (Ingalls)
(description of Mary's blindness)
18. + - Shogun
19. + - Chips
Jon, "Ponch"
20. + - The CBC National News
Knowlton Nash
the news man
21. + - The Incredible Hulk
David Banner
(describe transformation)

22. + - Soap
Bert, Mary (Campbell)
Jessica, Chester (Tait)
Benson (the butler)
23. + - 24 Hours
Scott Oake
the man who reads the sports
24. + - The White Shadow
Coach Reeves
(describe format: white basketball coach
in a black school)
25. + - M.A.S.H.
Klinger, Father Mulcahy, "Hotlips"
Margaret Hoolihan, "Hawkeye" Pearce,
B.J. Hunnicutt, Frank Burns, Col.
Sherman Potter, "Radar" O'Reilly.
26. + - Laverne & Shirley
Mr. DeFazzio, Lenny, Squiggy,
Carmine, Laverne, Shirley
27. + - Starsky & Hutch
28. + - Alice
Flo, Mel, Vera
29. + - Captain Kangaroo
Mister Moose
30. + - The Nature of Things / Science Magazine
David Suzuki
(reasonably detailed description of science
documentary)
31. + - Hockey Night In Canada
Toronto Maple Leafs,
Montreal Canadiens
32. + - Fat Albert (and the Cosby Kids)

33. + - The Tommy Hunter Show
Tommy Hunter
34. + - Bugs Bunny
Daffy Duck, Yosemite Sam
35. + - Hockey Night In Canada
Howie Meeker
36. + - The Tonight Show
Johnny Carson,
Ed McMahon
37. + - Happy Days
Richie (Cunningham)
Fonzie, "the Fonz"
38. + - Anne Murray
39. + - The Six Million Dollar Man
the bionic man
Steve Austin,
Oscar Goldman
40. + - Search For Tomorrow
Ted (Adamson),
Cecile

Appendix VIII
Television Use Interview Form
Pilot Two

TV USE INTERVIEW #1 #2

Name _____ School _____

Class _____ Birthdate _____

Sex: M F Interviewer _____ Date _____

1. Do you have a TV at home? (if yes) How many TV's does your family have?
(if more than one) Do you have a TV set in your room?
 0 no TV (go to questions 10 & 11)
 1 one
 2 2 or more
 3 own room
2. In the morning before you go to school, do you watch some TV with your breakfast?
 0 no
 1 yes, or sometimes
 2 names specific programs
3. How about at noon--do you watch TV while you have lunch or after lunch before you go back to school?
 0 no, or doesn't eat at home
 1 yes, or sometimes
 2 names specific programs
4. When school is finished and you come home in the afternoon, what do you usually do, play or watch TV?
 0 no TV
 1 some TV, or sometimes
 2 Always TV, or names specific programs
5. On Saturday mornings, what do you watch on Television?
 0 nothing or vague
 1 names 1 program
 2 names 2 or more
6. Does your mother or father let you watch TV while you eat your supper?
 0 no
 1 special occasions or sometimes
 2 yes (regularly)
7. Does dad or mom eat in front of the TV set?
 0 no
 1 special occasions or sometimes
 2 yes (regularly)
8. Are there special programs on Tv that you always like to watch with dad?
 0 no
 1 yes, or names one
 2 names 2 or more
9.with mom?
 0 no
 1 yes, or names one
 2 names 2 or more

10. Do you play the people or things you see on TV when you play with your friends? (if yes, encourage the child to demonstrate)
- 0 no
 - 1 yes, or names one
 - 2 names 2 or more
11. What do you like best on TV/
- 0 nothing or vague
 - 1 names one program or thing
 - 2 names 2 or more

_____ Total Score (Max. 23)

Appendix IX

Parent-Completed Television Use Check List

Pilot Two

TELEVISION USE CHECKLIST

#1

#2

Completed by: _____

Address: _____

With Regard to: Self

 Child: _____

Date: _____

Interviewer: _____

TELEVISION USE CHECKLIST

For each of the television programs listed below, please circle the number that describes your actual viewing (NOT your liking, but your actual watching).

0 = rarely or never watch, 1 = occasionally watch, 2 = regularly watch
Work quickly.

<u>Channel Number</u>	<u>Program Name</u>			
6 (2)	What's New	0	1	2
7 (5)	World Series Baseball	0	1	2
(3)	Coping With Kids	0	1	2
(11)	American Bandstand	0	1	2
6 (2)	Wow!	0	1	2
9 (12)	NHL Game Of The Week	0	1	2
(3)	You Will Speak Russian	0	1	2
(4)	30 Minutes	0	1	2
(11)	NCAA Football	0	1	2
6 (2)	Flipper	0	1	2
(4)	Superman	0	1	2
6 (2)	You Can Do It	0	1	2
(3)	Minnesota Issues	0	1	2
(4)	That Nashville Music	0	1	2
6 (2)	Sports Weekend	0	1	2
(3)	Connections	0	1	2
(4)	Dolly Parton	0	1	2
9 (12)	Calvary Temple Worship Hour	0	1	2
(4)	Bowling Bonanza	0	1	2
7 (5)	Wide World of Sports	0	1	2
(3)	Soccer Made In Germany	0	1	2
(8)	Sportsworld	0	1	2
(4)	Sports Spectacular	0	1	2
9 (12)	All In A Tube	0	1	2
9 (12)	Kidsworld	0	1	2
(3)	This Old House	0	1	2
(13)	Oxfam	0	1	2
9 (12)	Cartoons	0	1	2
(3)	Once Upon A Classic	0	1	2
6 (2)	Racquetball	0	1	2
7 (5)	Wrestling	0	1	2
9 (12)	Bugs Bunny	0	1	2
(3)	Washington Week In Review	0	1	2

	(4)	Hee Haw	0	1	2
	(8)	Wild Kingdom	0	1	2
	(3)	Wall Street Week	0	1	2
	(11)	In Search Of	0	1	2
7	(5)	Debate	0	1	2
9	(12)	George Dalgleish	0	1	2
	(3)	Free Space	0	1	2
	(8)	Lawrence Welk	0	1	2
	(11)	Solid Gold	0	1	2
	(13)	Coming Out	0	1	2
6	(2)	Bless Me Father	0	1	2
7	(5)	Kinsmen Bingo	0	1	2
9	(12)	Stan Kann	0	1	2
	(4)	The Muppets	0	1	2
	(13)	Manitoba Equestrian	0	1	2
6	(2)	Vignette	0	1	2
6	(2)	NHL Hockey	0	1	2
9	(12)	A Man Called 'Sloane	0	1	2
	(3)	The Commanders	0	1	2
	(4)	Tim Conway	0	1	2
	(11)	Love Boat	0	1	2
	(13)	Bible's View	0	1	2
	(8)	Centennial	0	1	2
9	(12)	What Will They Think Of Next?	0	1	2
	(3)	Vikings	0	1	2
	(13)	Filmseen	0	1	2
9	(12)	Jimmy King Presents	0	1	2
	(3)	Superstar Profile	0	1	2
	(13)	Soccer Corner	0	1	2
9	(12)	Fantasy Island	0	1	2
	(8)	Steve Allen Comedy Hour	0	1	2
	(13)	Search For Truth	0	1	2
6	(2)	Monte Carlo	0	1	2
7	(5)	CFL Football	0	1	2
	(3)	Reflections Of The Third Reich	0	1	2
	(4)	Gunsmoke	0	1	2
	(8)	Saturday Night Live	0	1	2
	(13)	Philippineorama	0	1	2
	(13)	Nightwatch	0	1	2

	(4)	NFL Review And Preview	0	1	2
6	(2)	Rockford Files	0	1	2
	(11)	PTL Club	0	1	2
9	(12)	Max The Mouse	0	1	2
9	(12)	Audubon	0	1	2
	(4)	Human Dimension	0	1	2
9	(12)	Copeland Hour	0	1	2
	(4)	Eyewitness News Conference	0	1	2
	(8)	700 Club	0	1	2
7	(5)	Storytime	0	1	2
	(4)	Kenneth Copeland	0	1	2
9	(12)	Hercules	0	1	2
	(8)	Dr. E. J. Daniels	0	1	2
7	(5)	Jerry Falwell	0	1	2
9	(12)	Day Of Discovery	0	1	2
	(4)	Rex Humbard	0	1	2
	(8)	Religious Town Hall	0	1	2
7	(5)	Terry Winters	0	1	2
9	(12)	Jimmy Swaggart	0	1	2
	(3)	Sesame Street	0	1	2
	(8)	Oral Roberts	0	1	2
	(11)	Lundstroms	0	1	2
	(13)	Nine 'Til Noon	0	1	2
7	(5)	It Is Written	0	1	2
	(11)	Archie Campbell	0	1	2
7	(5)	House Of Frightenstein	0	1	2
9	(12)	Flintstones	0	1	2
	(3)	Mister Rogers Neighbour- hood	0	1	2
	(11)	Hour Of Power	0	1	2
	(3)	The Electric Company	0	1	2
	(4)	Face The Nation	0	1	2
7	(5)	Funtown	0	1	2
	(3)	Villa Allegre	0	1	2
	(4)	Adelson Pre-Game Show	0	1	2
	(8)	Messiah Church	0	1	2
	(11)	Issues And Answers	0	1	2
	(3)	3-2-1 Contact	0	1	2
	(4)	NFL Football Double- header	0	1	2

	(11)	At Issue	0	1	2
6	(2)	Meeting Place	0	1	2
7	(5)	Yogi Bear	0	1	2
	(3)	Big Blue Marble	0	1	2
	(11)	Directions	0	1	2
6	(2)	Country Canada	0	1	2
	(3)	Great Performances	0	1	2
6	(2)	Hymn Sing	0	1	2
6	(2)	The Beachcombers	0	1	2
7	(5)	Faith To Live By	0	1	2
	(3)	All Creatures Great And Small	0	1	2
	(11)	Backstage At The Grand Ole Opry	0	1	2
7	(5)	Question Period	0	1	2
	(11)	Pop Goes The Country	0	1	2
	(11)	Nashville On The Road	0	1	2
	(13)	The Western Hour	0	1	2
	(11)	Sha Na Na	0	1	2
	(3)	Firing Line	0	1	2
	(13)	New Directions In Mental Retardation	0	1	2
	(3)	Julia Child and More Company	0	1	2
	(13)	Moments With The Master	0	1	2
	(3)	Dakota Fields	0	1	2
	(13)	Sounds Of Vietnam	0	1	2
7	(5)	Untamed World	0	1	2
9	(12)	Sixty Minutes	0	1	2
	(8)	Chips	0	1	2
	(11)	Those Amazing Animals	0	1	2
6	(2)	Disney	0	1	2
7	(5)	Super Loto	0	1	2
7	(5)	Dukes Of Hazard	0	1	2
	(3)	Cosmos	0	1	2
	(4)	Archie Bunker's Place	0	1	2
	(13)	World Of Chess	0	1	2
	(4)	One Day At A Time	0	1	2
7	(5)	Nashville Swing	0	1	2
	(3)	Masterpiece Theatre	0	1	2
	(4)	Alice	0	1	2
	(13)	Tae Kwon Do	0	1	2

7	(5)	Webster	0	1	2
	(4)	The Jeffersons	0	1	2
6	(2)	The Canadian Establish- ment	0	1	2
7	(5)	Vegas	0	1	2
	(3)	Spin	0	1	2
	(4)	Trapper John, M.D.	0	1	2
	(13)	Teleplay	0	1	2
	(3)	Sneak Previews	0	1	2
	(13)	Studies In Scripture	0	1	2
7	(5)	W-5	0	1	2
	(3)	Ripping Yarns	0	1	2
	(13)	U.N. And Community	0	1	2
	(3)	Wodehouse Playhouse	0	1	2
	(8)	Decision '80	0	1	2
	(13)	Happiness Is	0	1	2
9	(12)	It's A New Day	0	1	2
	(13)	Nightwatch	0	1	2
7	(5)	Woodsmoke And Sweetgrass	0	1	2
	(4)	Kung Fu	0	1	2
7	(5)	Merv Griffin	0	1	2
	(8)	America's Top Ten	0	1	2
	(8)	Bob Newhart	0	1	2
7	(5)	Emergency	0	1	2
7	(5)	University Of The Air	0	1	2
	(8)	Country Day	0	1	2
7	(5)	Just Like Mom	0	1	2
9	(12)	100 Huntley Street	0	1	2
	(4)	New Zoo Review	0	1	2
	(11)	Northern Lights	0	1	2
	(11)	Farm Report	0	1	2
	(11)	Good Morning Show	0	1	2
7	(5)	Canada A.M.	0	1	2
	(8)	Today	0	1	2
	(11)	Good Morning, America	0	1	2
	(3)	Armchair Fitness	0	1	2
	(4)	Captain Kangaroo	0	1	2
	(3)	Over Easy	0	1	2
7	(5)	Romper Room	0	1	2
	(8)	David Letterman	0	1	2

	(11)	Phil Donahue	0	1	2
7	(5)	What's Cooking	0	1	2
9	(12)	Polka Dot Door	0	1	2
6	(2)	The Friendly Giant	0	1	2
6	(2)	Coronation Street	0	1	2
6	(2)	Schools	0	1	2
7	(5)	Mad Dash	0	1	2
	(4)	The Price Is Right	0	1	2
	(8)	Wheel Of Fortune	0	1	2
	(13)	Seniors On The Move	0	1	2
	(13)	House Of Commons	0	1	2
6	(2)	Mr. Dressup	0	1	2
7	(5)	Today's World	0	1	2
	(8)	Password Plus	0	1	2
	(13)	Hypnosis Today	0	1	2
9	(12)	It Figures	0	1	2
	(4)	The Young And The Restless	0	1	2
	(8)	Doctors	0	1	2
	(11)	Family Feud	0	1	2
	(13)	Astrology	0	1	2
9	(12)	Doug Hall	0	1	2
	(8)	Noonday	0	1	2
	(11)	All My Children	0	1	2
7	(5)	Archie	0	1	2
9	(12)	Spiderman	0	1	2
6	(2)	Take Kerr	0	1	2
6	(2)	Bob McLean	0	1	2
7	(5)	Huckleberry Hound	0	1	2
	(4)	Search For Tomorrow	0	1	2
	(8)	Days Of Our Lives	0	1	2
	(11)	Midday	0	1	2
9	(12)	Magazine	0	1	2
7	(5)	Definition	0	1	2
	(4)	As The World Turns	0	1	2
	(11)	One Life To Live	0	1	2
6	(2)	Wicks	0	1	2
7	(5)	Another World	0	1	2
6	(2)	Today From	0	1	2
9	(12)	Yan Can	0	1	2

	(4)	Guiding Light	0	1	2
	(11)	General Hospital	0	1	2
7	(5)	Texas	0	1	2
9	(12)	Celebrity Cooks	0	1	2
9	(12)	Seniors Show	0	1	2
6	(2)	Take 30	0	1	2
	(3)	Footsteps	0	1	2
7	(5)	Alan Thicke	0	1	2
	(3)	Feelings	0	1	2
	(8)	To Tell The Truth	0	1	2
	(11)	The Big Valley	0	1	2
6	(2)	News From The Zoos	0	1	2
	(4)	I Dream Of Jeannie	0	1	2
	(8)	The Munsters	0	1	2
6	(2)	Happy Days	0	1	2
7	(5)	Bewitched	0	1	2
	(4)	Beverley Hillbillies	0	1	2
	(8)	Leave It To Beaver	0	1	2
	(11)	World Of People	0	1	2
6	(2)	King Of Kensington	0	1	2
7	(5)	Odd Couple	0	1	2
9	(12)	Welcome Back, Kotter	0	1	2
	(4)	Hogan's Heroes	0	1	2
	(8)	Happy Days Again	0	1	2
6	(2)	All In The Family	0	1	2
7	(5)	Newlywed Game	0	1	2
	(11)	Barney Miller	0	1	2
	(13)	New Consumer	0	1	2
9	(12)	Bowling For Dollars	0	1	2
9	(12)	Family Feud	0	1	2
	(3)	MacNeil-Lehrer Report	0	1	2
	(4)	M.A.S.H.	0	1	2
	(8)	Sioux Football High- lights	0	1	2
	(11)	Joker's Wild	0	1	2
	(13)	People Like You	0	1	2
7	(5)	Little House On The Prairie	0	1	2
9	(12)	That's Incredible!	0	1	2
6	(2)	Points West	0	1	2
6	(2)	White Shadow	0	1	2

7	(5)	Headline Hunters	0	1	2
	(3)	The Advocates	0	1	2
	(4)	WKRP In Cincinnati	0	1	2
	(3)	The Information Society	0	1	2
	(4)	Lou Grant	0	1	2
	(13)	Nutrition, Environment and Health	0	1	2
6	(2)	Front Page Challenge	0	1	2
6	(2)	Newsmagazine	0	1	2
	(13)	Elbera's Belly Dancing	0	1	2
6	(2)	Watson Report	0	1	2
9	(12)	Manitoba Tonight	0	1	2
	(3)	Dick Cavett	0	1	2
	(4)	Quincy	0	1	2
	(8)	The Tonight Show	0	1	2
	(3)	Human Face Of China	0	1	2
	(4)	The New Avengers	0	1	2
	(8)	Tomorrow	0	1	2
	(3)	Bill Moyer's Journal	0	1	2
7	(5)	Circus	0	1	2
	(3)	Nova	0	1	2
6	(2)	Reach For The Top	0	1	2
7	(5)	Stars On Ice	0	1	2
	(11)	Laverne And Shirley	0	1	2
	(13)	Caribbean Echoes	0	1	2
6	(2)	Keep It In The Family	0	1	2
7	(5)	Diff'rent Strokes	0	1	2
	(3)	The Body In Question	0	1	2
	(11)	Three's Company	0	1	2
	(13)	Jewish TV Hour	0	1	2
7	(5)	Ronnie Prophet	0	1	2
	(11)	Taxi	0	1	2
	(13)	Divine Light	0	1	2
6	(2)	The Fifth Estate	0	1	2
7	(5)	Hart To Hart	0	1	2
	(3)	The Best Of Soundstage	0	1	2
6	(2)	Phoenix Team	0	1	2
	(13)	Friends Of India	0	1	2
7	(5)	Live It Up	0	1	2
7	(5)	Emergency	0	1	2
9	(12)	Modern TV	0	1	2

6	(2)	Spread Your Wings	0	1	2
	(13)	The Right To Choose	0	1	2
	(13)	The Coming King	0	1	2
	(3)	Live From Lincoln Centre	0	1	2
	(8)	Real People	0	1	2
	(11)	Eight Is Enough	0	1	2
6	(2)	John Allan Cameron	0	1	2
6	(2)	The Nature Of Things	0	1	2
	(11)	Charlie's Angels	0	1	2
6	(2)	Ten Thousand Day War	0	1	2
	(8)	Smothers Brothers Comedy Hour	0	1	2
	(13)	Salt And Light Co.	0	1	2
6	(2)	Spectrum	0	1	2
7	(5)	Ray Jauch	0	1	2
7	(5)	Winsday	0	1	2
	(11)	Police Woman	0	1	2
6	(2)	Flappers	0	1	2
	(13)	M.A.C.L.D.	0	1	2
7	(5)	Super Country Superstars	0	1	2
	(3)	Up And Coming	0	1	2
	(8)	Games People Play	0	1	2
	(11)	The Tourist	0	1	2
6	(2)	Showbusiness	0	1	2
	(3)	From Jumpstreet	0	1	2
6	(2)	Tales Of The Unexpected	0	1	2
7	(5)	Waylon Jennings	0	1	2
	(3)	Victory Garden	0	1	2
	(11)	20/20	0	1	2
6	(2)	Live	0	1	2
	(13)	Music Forum	0	1	2
	(4)	McMillan And Wife	0	1	2
6	(2)	Too Close For Comfort	0	1	2
6	(2)	Palmerstown	0	1	2
6	(2)	The Famous Five	0	1	2
	(13)	Koreans In Manitoba	0	1	2
7	(5)	The Littlest Hobo	0	1	2
9	(12)	You And The Law	0	1	2
	(4)	Incredible Hulk	0	1	2
	(11)	Benson	0	1	2
	(13)	Ukrainian Program	0	1	2

6	(2)	Ladies' Man	0	1	2
7	(5)	Big City Comedy	0	1	2
9	(12)	For Art's Sake	0	1	2
6	(2)	Ritter's Cove	0	1	2
	(8)	Speak Up America	0	1	2
	(3)	North Dakota This Week	0	1	2
	(13)	Union Gospel Mission	0	1	2
7	(5)	Bizarre	0	1	2
6	(2)	Tommy Hunter	0	1	2
	(4)	Dallas	0	1	2
	(8)	NBC Magazine	0	1	2
	(13)	Taking Care Of Business	0	1	2
	(13)	Britain On Parade	0	1	2
	(11)	Fridays	0	1	2
	(8)	Midnight Special	0	1	2
6	(2)	Second City	0	1	2
	(4)	Little Rascals	0	1	2
	(4)	Mighty Mouse	0	1	2
	(8)	Godzilla/Dynomutt	0	1	2
	(11)	Superfriends	0	1	2
7	(5)	Educated Guess	0	1	2
9	(12)	Space Angel	0	1	2
	(4)	Tom And Jerry	0	1	2
	(3)	Case Studies In Small Business	0	1	2
	(8)	Fred And Barney	0	1	2
	(11)	Scooby And Scrappy	0	1	2
9	(12)	Follow Me	0	1	2
	(3)	Great Plains	0	1	2
	(3)	Introducing Biology	0	1	2
7	(5)	Let's Go	0	1	2
	(4)	Popeye Hour	0	1	2
	(8)	Daffy Duck	0	1	2
	(11)	Comedy Action	0	1	2
7	(5)	Swiss Family Robinson	0	1	2
	(3)	Civilisation	0	1	2
	(4)	Drak Pack	0	1	2
	(11)	Dear Alex And Annie	0	1	2
	(4)	Fat Albert	0	1	2
	(8)	Johnny Quest	0	1	2
6	(2)	This Is The Life	0	1	2

	(4)	Lone Ranger	0	1	2
	(8)	Drawing Power	0	1	2
7	(5)	Circle Square	0	1	2
	(8)	North Star Report	0	1	2
7	(5)	Horst Koehler	0	1	2
7	(5)	Inside Track	0	1	2
7	(5)	Red Fisher	0	1	2
7	(5)	Sports Hot Seat	0	1	2
9	(12)	Global Newsweek	0	1	2
	(4)	KXJB Fargo 5:30 Satur- day News	0	1	2
6	(2)	CBC Winnipeg 6:00 Sat. News	0	1	2
	(8)	WDAZ Devil's Lake 6:00 Sat. News	0	1	2
	(4)	KXJB Fargo 7:00 a.m. News	0	1	2
	(4)	KXJB Fargo 10 p.m. News	0	1	2
	(8)	WDAZ Devil's Lake 10 p.m. News	0	1	2
	(11)	KTHI Fargo 10 p.m. News	0	1	2
6	(2)	CBC Winnipeg 11 p.m. The National News	0	1	2
6	(2)	CBC Winnipeg 11:20 The Local News	0	1	2
7	(5)	CTV National News 11 p.m.	0	1	2
7	(5)	CKY Winnipeg 11:20 The Local News	0	1	2
6	(2)	CBC Winnipeg 6:00 24 Hours	0	1	2
7	(5)	CKY Winnipeg 6:00 News	0	1	2
9	(12)	CKND Winnipeg 5:30 News	0	1	2
9	(12)	CKND Winnipeg 10:30 Manitoba Tonight	0	1	2
9	(12)	CKND Noon News 12:25	0	1	2
	(11)	ABC 5:00 News Tonight	0	1	2
	(4)	CBS 5:30 Evening News With Walter Cronkite	0	1	2
	(8)	NBC Reports (Brinkley/ Chancellor)	0	1	2
6	(2)	CBC Sunday Evening News And This Week In Parliament	0	1	2

Appendix X

Reported Use Frequencies of Unfound Television

Use Check List Items--Pilot Two

Time One

Horst Koehler	6
Wicks	2
New Zoo Review	2
The Commanders	1
Phoenix Team	1
Wow!	3
Magazine	1
Copeland Hour	1
Palmerstown	1
	<hr/>
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Time Two

Horst Koehler	2
Wicks	1
New Zoo Review	3
Phoenix Team	1
Wow!	5
Palmerstown	1
Drawing Power	1
Connections	1
Super Country Superstars	1
	<hr/>
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Appendix XI
Revised Television Recognition Task Scoring Form
Child Study

TELEVISION RECOGNITION TASK--Scoring Form

Name _____ School _____

Class _____ Birthdate _____

Sex M F Interviewer _____ Date _____

Photo Score Acceptables Record Response

<u>Practice Item</u>		<u>Score</u>	<u>Acceptables</u>	<u>Record Response</u>
1.	+	-	Sesame Street Big Bird, Bob	
2.	+	-	Diff'rent Strokes Willis, Arnold, Mr. Drucker, (describe adoption)	
3.	+	-	The Electric Company Paul the Gorilla, Easy Reader, Fargo North Decoder, Igor, the Director, Jennifer of the Jungle, the Librarian, Spiderman (alone not credited).	
4.	+	-	American Bandstand Dick Clark, (describe program format)	
5.	+	-	WKRP in Cincinnati Les, Mr. Carlson, Venus, Herb, Travis, Jennifer, Dr. Johnny Fever (or disc jockey description), Bayley, (description of radio station).	
6.	+	-	Three's Company Janet, Chrissie, Jack (living arrangements)	
7.	+	-	Another World Rachel (Corey), Mac (Corey)	
8.	+	-	Love Boat Capt. Steubing, Doc, Julie, Gopher, Isaac	
9.	+	-	Lou Grant (also accept Mary T. Moore's boss) (newsroom description)	
10.	+	-	Little House on the Prairie Charles, Caroline, Mary, Laura, Carrie (Ingalls) (description of Mary's blindness)	

11. + - C.H.I.P.S.
Jon, "Ponch"
12. + - Soap
Bert, Mary (Campbell),
Jessica, Chester (Tait),
Benson (the butler)
13. + - M.A.S.H.
Klinger, Father Mulcahy, "Hotlips"
Margaret Hoolihan, "Hawkeye" Pearce,
B.J. Hunnicutt, Frank Burns, Col.
Sherman Potter, "Radar" O'Reilly
14. + - Laverne & Shirley
Mr. DeFazio, Lenny, Squiggy,
Carmine, Laverne, Shirley
15. + - Alice
Flo, Mel, Vera
16. + - Captain Kangaroo
Mister Moose
17. + - Hockey Night in Canada
Toronto Maple Leafs,
Montreal Canadiens
18. + - Fat Albert
(and the Cosby kids)
19. + - The Tommy Hunter Show
Tommy Hunter
20. + - The Tonight Show
Johnny Carson,
Ed McMahon

Appendix XII

Child Study Means and Standard Deviations For All Measures

Measure	Overall (N=82)		Boys (N=43)		Girls (N=39)	
	Mean	s.d.	Mean	s.d.	Mean	s.d.
Age (months)	80.37	7.76	80.28	4.40	80.46	5.19
Peabody I.Q.	110.54	12.45	113.88	12.63	106.85	12.63
Negative-Aggressive-Absorbed	13.71	5.18	13.40	5.35	14.05	5.03
Fanciful-Scary-Vivid	12.21	5.21	11.14	5.31	13.34	4.89
Intellectual-Action	12.16	4.97	12.44	5.59	11.85	4.23
TV Interpersonal Information	0.05	0.22	0.07	0.26	0.03	0.16
TV Impersonal Information	2.21	0.87	2.26	0.88	2.15	0.87
TV Sports	0.26	0.44	0.40	0.49	0.10	0.31
TV Sexual-Romantic	0.93	0.26	0.95	0.21	0.90	0.31
TV Musical	0.32	0.49	0.33	0.47	0.31	0.52
TV Nonviolent Drama	0.96	0.79	0.98	0.83	0.95	0.76
TV Violent Drama	0.74	0.44	0.86	0.35	0.62	0.49
TV Humorous	4.63	2.53	4.58	2.17	4.69	2.89

Television program categories contained from 1 to 8 pictures (see Table 37)

Appendix XIII

Simple Correlations of Predictors With TV Photograph Identifications

Predictor	Boys & Girls							
	Interpersonal Information	Impersonal Information	Sports & Physical Activity	Sexual-Romantic	Musical	Nonviolent Drama	Violent Drama	Humorous
Age	.11	-.14	.15	.06	.15	-.04	.03	.10
	-.08	-.17	.07	.16	.03	.16	.03	.20
Peabody I.Q.	.24	.53	.19	.13	.07	.38	.34	.44
	.16	.24	.33	.10	.16	.24	.14	.36
Negative-Aggressive-Absorbed Style	.19	.18	.07	-.09	.10	.08	.09	.30
	-.07	.26	.22	-.20	.11	.41	.23	.36
Fanciful-Scary-Vivid Style	-.15	.07	.01	-.04	.11	.03	.05	.22
	-.18	.16	-.15	-.06	-.07	.25	.16	.09
Intellectual-Action Style	.23	.12	-.17	-.08	.03	-.05	.08	.14
	-.19	.06	.03	-.24	-.04	.06	.01	-.11