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CHILDREN'S PERCEPTIONS OF THE ELDERLY: AN ATTRIBUTIONAL ANALYSIS

by

M. Elizabeth McDermott

M.A., University of Windsor, 1976

A Dissertation
Submitted to the Faculty of Graduate Studies
through the Department of Psychology
in Partial Fulfillment of the
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of Doctor of Philosophy at the
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1982

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ABSTRACT

The purpose of this study was to investigate whether or not children's attributions would vary as a function of the age of the target person about whom the attribution was being made. Sixteen children, 8 boys and 8 girls, from each of grades 1, 4, 7, and 10 were interviewed. Each child was shown 8 photographs, half of which portrayed elderly individuals, and half of which portrayed young individuals. A behavioural description accompanied each photograph. Following the presentation of each photograph, each child was asked an open-ended question which was designed to elicit his/her spontaneous explanations for the behaviour. Responses were classified as either dispositional or situational attributions. Probes of either a dispositional or situational nature were administered to children who failed to include both dispositional and situational content in their initial responses. Results indicated that the behaviour of old targets was rated as being significantly more dispositional than the behaviour of young targets. While significant differences in attribution ratings between young and old targets were not found at the grade 1 and 4 levels, children at the grade 7 and 10 levels consistently rated the behaviour of old targets as being significantly more dispositional than the behaviour of young targets. Furthermore, girls in grades 7 and 10 showed the strongest tendency to express a dispositional bias for the behaviour of old targets. Children at all grade levels demonstrated the ability to make both dispositional and situational attributions, and contrary to expectation a developmental shift

characterized by attributions becoming increasingly more dispositional was not observed. Discussion was in terms of how stereotypic expectancies may influence the attribution process, and in view of a significant interaction between target age and behaviour, it was suggested that a dispositional bias will be most readily detected for those behaviours which are strongly associated with stereotypic expectancies.

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CHAPTER I

INTRODUCTION

Life expectancy at birth has increased during the past century by approximately 40 years in all developing countries. In most of these countries the old age groups, 65 years and over, now constitute 10 to 12% of the general population, a figure which represents a doubling since 1900 (Juel-Nielsen, 1975). As an ever-growing proportion of the population, the elderly have experienced greater social visibility. Concern regarding their present and future needs has stimulated a significant growth in gerontological research during the past decade.

Research in the areas of person perception, stereotyping, and attitude formation has resulted in a substantial body of published literature. Findings have pointed to a prevailing belief that old age is a time of inevitable deterioration in mental, physical, and social functioning (for example, Bennett, 1976; Harris, 1975; Kogan & Shelton, 1962a, 1962b; Rubin & Brown, 1975; Weinberger & Millham, 1975). After an extensive review of the literature McTavish (1971) concluded:

Stereotyped views of the elderly uncovered in various studies include the view that old people are generally ill, tired, not sexually interested, mentally slower, forgetful, and less able to learn new things, grouchy, withdrawn, feel sorry for themselves, less likely to participate in activities (except perhaps religion), isolated, in the least happy or fortunate time of life, unproductive, defensive, in various combinations, and

with various emphases (p. 97).

The greatest thrust in research has been to improve or develop new assessment techniques (for example, dependent measures for attitude measurement) with little regard to theoretical considerations. The rationale for these types of research projects has been the premise that attitudes/perceptions/stereotypes exert a pervasive influence extending to numerous areas of concern such as self-concept in old age, intergenerational relations, and overall social policy. For more extensive reviews and critiques of this literature of adults' perceptions of the elderly, the reader is referred to Bennett and Eckman, 1973; Brubaker and Powers, 1976; Green, 1981; Kogan, 1979; McTavish, 1971, and Nardi, 1973.

In sharp contrast to the many studies concerning adult perceptions, there have been very few studies in which children's perceptions of the elderly have been investigated, and like the adult studies they too have evolved with minimal theoretical direction. This paucity of research has existed despite one of the core dictums of social science which states that "attitudes" acquired in the early years may remain as stable enduring influences throughout one's life span (Allport, 1935; Klausmeier & Ripple, 1971). Indeed, as indicated in the discussion above, the implications of such attitudes/perceptions are great - perhaps even more so for children. The ways in which children perceive old people will likely affect not only their current behaviour toward the elderly, but also their future behaviour when as adults they will be the primary agents of change and decision-making for our society. Furthermore, how children learn to anticipate and prepare for old age will determine their course of adjustment as they themselves grow old. Recognizing the importance of children's perceptions, some investigators have developed

special intervention programs to extend children's knowledge about aging in the hope that children will be able to view the aging process in less negative but more realistic ways (Trent, Glass & Crockett, 1979; Jantz; Seefeldt, Galper & Serock, Note 1).

This chapter will now survey those studies in which the attitudes/perceptions of children (preadolescent and adolescent) toward the elderly have been investigated. It will then turn to a consideration of attribution theory and its potential for increasing our understanding of how children come to know their social world by means of a causal analysis of their own behaviour and the behaviour of other people. In conclusion, an argument will be made that social attribution theory provides a promising framework in which developmental psychologists can examine person perception phenomena, and more specifically person perception phenomena in regard to the elderly.

Overview of Studies Pertaining to Children's Perceptions of the Elderly

Results of studies which have investigated children's perceptions of the elderly have been typically inconsistent, but suggestive of a general trend in which children, adolescents and preadolescents, reflect a negative but sometimes neutral or ambivalent attitude toward the elderly (note the terms "attitude", "stereotype", and "perception" are used interchangeably in many of these studies). It may be the case that children's perceptions of the elderly are less focused than those of adults; Tuckman, Lorge, and Spooner (1953) contend that negative attitudes toward aging and the aged are formed early in life and become progressively more marked with each subsequent age group.

According to Kahana and Kahana (1970), very young children (i.e.,

4-5 years) have great difficulty specifying what criteria could be used in defining when old age occurs, whereas older children, beginning around the age of eight, are able to cite a variety of physical, psychological, and social characteristics which frequently focus on the declining abilities of the elderly. When Hickey, Hickey, and Kalish (1968) asked third grade children to write a story about an "old person", children produced stereotypic stories describing the elderly as having ambulatory problems, being lonely, and inactive. Hickey et al. concluded that at least by eight years of age children have begun to develop concepts about what they believe to be the realities of old age.

In an effort to prevent confounding children's knowledge about the elderly with children's feelings toward the elderly, Lister, Signori, and Kozak (Note 2) using an open-ended written inquiry asked fourth and fifth grade children the following questions: 1. Tell me what you know about the elderly, and 2. How do you feel about the elderly? Instructions to the children were designed with the intention of insuring that they understood the distinction between "knowing" and "feeling". Results revealed that proportionately more girls than boys reported information about the elderly, and the elderly were described as having more unfavorable personal qualities by girls than by boys. However, boys and girls attributed favorable qualities to the elderly to a similar degree. With respect to feelings, more positive than negative feelings were expressed toward the elderly by both boys and girls. The overall findings were consistent with a theme which seems to prevade many other studies. While children may express warm positive feelings toward the elderly, they usually emphatically and simultaneously reject the negative char-

acteristics which they associate with old age, for example, wrinkles, declining health, increasing passivity, as well as the prospect of growing-old themselves (Seefeldt, Jantz, Galper & Serock, 1977a, 1977b; Treybig, 1974; Burke, Note 3).

Other approaches to exploring children's perceptions of the elderly have involved more structured techniques. Hickey and Kališh (1968), using the results of their earlier study cited previously, developed a 20-item questionnaire made up of evaluative and descriptive terms to examine perceptions of adult ages (25, 45, 65, and 85 years). They asked third grade, junior high, senior high, and college students to complete the questionnaire, and found that the older the stimulus age, the less pleasant was the associated image. However, contrary to their prediction, older subjects were not harsher in their ratings of the elderly than were younger subjects.

Using photographs of both sexes for five different age groups (ranging from a preschool-age child to an elderly adult), Weinberger (1979) asked children (5-8 years) to rank order the photographs according to various attributes (e.g., happiness) as well as in response to questions pertaining to social interaction (e.g., Which of these people would you tell your biggest secret to?). An overwhelming proportion of the children regarded the elderly as the sickest and ugliest among the stimulus persons. The elderly were also judged as having the fewest friends. Ratings for the attributes of happiness and intelligence were not significantly different from those of other age groups, although there was a slight tendency to view the elderly as less happy and less intelligent than adolescent or middle-aged persons. Results from items

which were designed to tap children's willingness to engage in social interaction with the elderly were less consistent. Differences in response across the various grade levels were not reported, and probably can be assumed to be negligible.

In view of these findings, Weinberger contended that children hold negative stereotypes of the elderly which correspond to those of adults. His assertion has received additional support from a recent study conducted by Burke (Note 3). According to Burke's research, which included sociometric questions and an open-ended interview, the perceptions of very young children, while somewhat mixed, reflect those of adults. Children assigned the elderly few positive options relative to other age groups. The specific contents of their perceptions revealed that they attributed sadness and loneliness to the elderly, and greater potency to young people. Similarly, Phenice (1978) observed that preschool children in day care facilities, regardless of the presence or absence of elderly aides, revealed more negative than positive attitudes. In addition, Phenice claimed that her assessment of their parents' attitudes confirmed that the two generations were not significantly different in their perceptions of old people.

Seefeldt et al. (1977a, 1977b) and Jantz et al. (1977) in a series of articles, have described the results of their collaborative research efforts, which were based on the CATE, a test which they designed and which is purported to measure the cognitive, affective, and behavioural components of children's attitudes toward the elderly. They concluded that children at all age levels, from age three to age eleven had limited knowledge of the elderly as well as limited contact with the elderly.

Their attitudes were described as complex and mixed, but generally negative and stereotypic. Old people were described as sick, tired, and ugly, and the children reported that they were repelled by the physical characteristics associated with old age, i.e., wrinkles, grey hair, false teeth, etc. Grade level was not associated with the range of positive and negative responses within the "knowledge component category"; however, grade level was positively correlated with the number of passive-stereotypic interactions (e.g., I could go to church with an old man), as well as the number of helping behaviours directed toward the elderly. When asked about how they felt about growing old, children in the upper grades (5-6) gave fewer negative and more neutral responses than children in the lower grade levels.

In contrast to the majority of studies which have been cited, with the exception of the research of Lister, Signori, and Kozak (Note 2), Thomas and Yamamoto (1975) have argued that their study indicated a considerably more optimistic perception of old age. They presented children in grades 5, 7, 9 and 11 with three newspaper photographs, representing a man at 30, 50 and 70 years of age, and asked them to write a story about each man. According to their criteria, almost all stories were rated as "stereotypic" irrespective of the age of the stimulus, and in regard to the elderly, story contents suggested positive attitudes. Indeed, within the context of this story-writing task children frequently idealized old people as being benevolent grandparent-types. This tendency of children to use their grandparents, or their concept of grandparents when describing the elderly was also observed by Burke (Note 3).

Thomas and Yamamoto extended their methodology and asked the children to rate perceptual targets of varying ages on a semantic differ-

ential scale. At all grade levels (5, 7, 9, 11) children evaluated the concepts of "young", "middle-aged", and "old" persons with increasingly positive degrees of goodness and wisdom, and while ratings on the affect dimensions became significantly less pleasant, less happy, and less exciting, the ratings remained about the neutral point. On the activity-potency dimension, a significant increase in the mean ratings at each grade level suggested that children agree with the view that the elderly are powerless and passive. Yet Thomas and Yamamoto have maintained that overall these results suggest that children do not necessarily share the negative stereotypes reported by so many other researchers.

The findings of Thomas and Yamamoto also revealed an interesting pattern of differences among the children which becomes rather interesting when viewed with the results of other studies. Children in the upper range of middle-childhood (i.e., grade 7) held the most negative stereotypes of old age. On the other hand, Seefeldt et al. (1977a, 1977b) found that fifth and sixth grade children expressed less negative and more neutral attitudes toward aging than younger children. In an exploratory survey, Bunt (Note 4) found that children in the fifth and seventh grades reported respectively either ambivalent-negative or ambivalent-positive attitudes toward the aged. It would appear that some evidence exists which tentatively points to middle-childhood as being an unstable period in terms of attitude formation, at least when the elderly are the reference group.

Thus far this review has focused primarily on those studies which have examined the attitudes or perceptions of preadolescent children toward the elderly. It should be obvious that most studies have been

preliminary probes into a relatively unexplored area.

Methods have included content analyses of stories and responses to open-ended questions, sociometric techniques, semantic differentials, questionnaire-type formats, and various combinations of each. Some measures emphasized knowledge, that is, children's knowledge or beliefs about the elderly, while some measures emphasized children's affective reactions to the elderly. The referent in these studies was often vaguely defined as "an old person", or as a particular chronological category, for example, "85 year-old people". Sometimes drawings or photographs of people representing different ages were used as the referent. Samples of children, from an essentially white middle-class background, were often limited to preschoolers or a few selected grades. Not surprisingly, findings have been somewhat inconsistent and not very informative as to whether or not children's perceptions reflect a developmental trend.

With respect to adolescent populations the findings are even less clear. There have been very few studies in which the perceptions of adolescents have been directly investigated. While some studies, which were described earlier in this paper, have extended their subject sample into adolescence (e.g., Hickey & Kalish, 1968; Thomas & Yamamoto, 1975), most studies have included adolescents in "young adult" samples whose ages have sometimes extended into their middle or late twenties (e.g., Harris, 1975; Kastenbaum & Durkee, 1964; Lane, 1964), or even into their forties (Signori, Butt & Kozak, 1980; Signori, Butt, & Kozak, Note 5).

According to Kastenbaum and Durkee (1964) adolescents and young people in general hold a predominately negative stereotype of old age. Lane (1964) observed an attitude of tolerance rather than acceptance among high school and college students. More recently, Harris (1975) con-

cluded on the basis of a nationwide survey, that age was the most significant determinant of attitude with the youngest groups (18-24 years) harboring the most negative attitudes toward the oldest groups.

Borges and Dutton (1976) assessed attitudes toward aging across seven groups ranging from 6 to 65 years. Subjects rated their own lives as well as an "average person's life" at each of eight age intervals. They found that the "best year" selected increased with the age of the respondent, but that younger subjects did not rate their future lives to be as good as actually described by older subjects. Ahammer and Baltes (1972) were also interested in how different age groups perceived one another as well as themselves. Adolescents (ages 15-18), adults (ages 34-40), and older people (ages 64-74) completed a questionnaire comprised of items representing the behavioural areas of Affiliation, Achievement, Autonomy, and Nurturance taken from the Jackson Personality Research Form. Although older people were not misperceived with respect to either their affiliation or achievement needs, both adolescents and adults described older people as being more dependent than older people described themselves. Furthermore, older people were perceived by adolescents and adults as judging nurturance more desirable than did older people in their self-reports.

While misperceptions of the elderly appear to occur, the contention that negative stereotypes are deeply entrenched among the adolescent population has been questioned. Ivester and King (1977) reported that high school students in the ninth and twelfth grades indicated more positive than negative attitudes on Kogan's Old People Scale, and that there were no significant differences in attitude between the two grades. The observation that adolescents may hold a more favorable disposition toward

the aged than is generally acknowledged, has received support from the work of Trent, Glass, and Crockett (1979). They used the same scale to measure attitudes toward the elderly before and after adolescents participated in various educational programs on aging, and found a significant improvement in post-test attitudes as compared to a control group of subjects. They also noted that pre-test scores had demonstrated that slightly positive attitudes had already existed. However, because of the limited nature of the subject sample in each of these studies--in the first study only rural high school students were used, and in the second study subjects were drawn exclusively from 4-H clubs, these findings must be interpreted with some caution.

In summary there have been relatively few studies examining the perceptions of preadolescent children toward the elderly, and even fewer studies which have been specifically designed to assess the perceptions of adolescents. Research has tended to lack theoretical direction and has failed to consider the underlying cognitive processes which may shape children's perceptions. The major focus of most studies has been to determine the specific contents of children's perceptions or to obtain some global measure of stereotyping.

Findings suggest that children, both adolescents and preadolescents, identify old age as an unfavorable time of life. Old age is overly associated with many undesirable qualities, not only physical characteristics such as wrinkles, baldness, false teeth, etc., but also more social-psychological characteristics such as sadness, loneliness, and passivity. Indeed these beliefs about old age form a recurring theme throughout the research (e.g., Hickey & Kalish, 1968; Lister, Signori, & Kozak, Note 2; Burke, Note 3). On the other hand, findings pertaining to

children's attitudes toward the elderly are less consistent. While a belief can be affect free, an attitude carries a connotation of a pro or con disposition toward the object of the attitude (Kogan, 1979). When this distinction is made, and consideration is given to children's feelings for the elderly, it appears that most children feel either quite positively (e.g., Ivester & King, 1977; Thomas & Yamamoto, 1975; Trent, Glass & Crockett, 1979; Lister, Signori & Kozak, Note 2), or they feel somewhat ambivalent (e.g., Seefeldt et al., 1977a, 1977b; Weinberger, 1979; Burke, Note 3; Bunt, Note 4). However, with respect to children's perceptions of the elderly, it can be hypothesized that their perceptions gradually develop to approximate those of adults, which are more consistently reported as being negative and stereotypic.

Social Attribution: A Developmental Perspective

How children come to know and understand their social world has been a major theme of recent research (Shantz, 1975). One of the most promising directions has been the linking of developmental theories with social-psychological theories. While developmental theories, and more specifically social cognition, have been primarily concerned with the changes in cognitive structure which occur over time, and which have implications for children's conceptualization of social reality, social-psychological theories have focused on how "variation in the object of thought affects one's understanding of social behaviour" (Guttentag & Longfellow, 1977). The "union" of these two perspectives is evidenced by the increasing number of studies which have used a developmental perspective to investigate various aspects of attribution theory, as postulated by Heider (1958), Jones and Davis (1967), and Kelley (1967, 1973). For a review of such studies see Guttentag and Longfellow (1977), Ruble and Rholes (1981), and Dix (Note 6).

Attribution theory grew out of a concern for understanding person-perception phenomena, that is, how people perceive other people (Harvey & Smith, 1977). It assumes that people search for a causal analysis of their own behaviour as well as the behaviour of others by a systematic processing of social information, and in this sense attribution theory is referring to a cognitive process. The purpose of this causal analysis is to give meaning to "events", thereby providing the perceiver with a sense of stability and predictability. While the locus of causality varies somewhat among the different theories of attribution, the most general distinction has been between the internal/person and the external/entity dimension. In other words, an observer attempts to explain an event or a behaviour in terms of either a disposition (i.e., traits or characteristics within the person), or in terms of the situation (i.e., the particular circumstances or constraints imposed by the external environment). By definition, dispositional attributions imply non-modifiability, or even if there is the potential for change, the change must be in the individual. In contrast, situational attributions imply that behaviours can be changed by changing relevant variables in the environment.

Developmental researchers have been interested in determining whether or not children can use attributional rules to logically process social information, and if so, when and under what conditions does this capacity emerge. Dix (Note 5) has contended that children as young as three years possess the fundamental cognitive prerequisites necessary for social attribution. Likewise, Ruble and Rholes (1981) have concluded tentatively that children, four to six years, have some conception of causality and are able to apply some type of covariation rule; for example, rules which are similar to, or consistent with Kelley's principles

of distinctiveness, consensus, and consistency.

Two basic issues have been whether or not children can differentiate between dispositional (internal) and situational (external) causes, and whether or not differences in attributions reflect developmental changes. Neither of these issues has been adequately addressed in the literature. While Ruble and Rholes (1981) have claimed that with age, the perceptions of the locus of causality shift from primarily external (entity) to primarily internal (person) factors, there has been little supporting evidence, with perhaps the exception of the study conducted by Ruble, Feldman, Higgins, and Karlovač (1979)--and even in this study the authors acknowledged that entity attributions, which were based on an array of pictures, were probably not equivalent to situational attributions. However, other areas of research, particularly the developmental literature on person perception, can provide additional insights concerning the disposition-situation distinction as well as indirect support for a developmental pattern for causal attributions.

Developmental research has indicated that very young children have great difficulty in explaining behaviour in terms of its psychological determinants (Shantz, 1975). They fail to perceive others as well as themselves as stable entities who are capable of acting in predictable ways. Thus personal dispositions as causes of behaviour do not seem to be part of their attributional repertoire. Various investigators have observed that these children rarely spontaneously describe or explain themselves, or others, in terms of dispositional attributions; instead they focus on highly observable surface cues such as physical appearance, material possessions, and family memberships (Livesley & Bromley, 1973; Montemayor & Eisen, 1977; Peevers & Secord, 1973; Secord & Peevers, 1974).

Furthermore, these investigators, namely Livesley and Bromley (1973) and Peevers and Secord (1973), observed that around seven or eight years of age, children showed a substantial change in the way they described people; they began to employ more abstract descriptions based on regularities in behaviour which they had identified over time. In addition, when children were later questioned about their descriptions of other people, they manifested a higher level of understanding, and made more abstract attributions (Flapan, 1968; Livesley & Bromley, 1973). It may have been that the free-response format, which was used in these studies, was not sufficient to elicit dispositional (psychologically-oriented) attributions.

Flapan (1968) found that six year-olds' descriptions of movie episodes did not often include causal explanations, but when they did, the situation was used as an explanation (e.g., "She felt sad because the squirrel was hurt"), whereas older children, beginning around the age of nine, tended to invoke more psychological explanations (e.g., "She felt sad because she thought her father didn't love her"). Children did not relinquish situational explanations but rather expanded their causal repertoire to include psychological explanations, which are more typical of dispositional attributions. Ruble et al. (1979) have reported that children between the approximate ages of seven and ten showed no bias in assigning either situational or dispositional explanations, but overall the research suggests that as age increases so does the number of dispositional explanations. Indeed, it has been demonstrated that adults are biased in the direction of citing more dispositional than situational causes, particularly in reference to the behaviour of other people (McArthur, 1972, 1976; Orvis, Cunningham & Kelley, 1975). In other words,

people tend to neglect the importance of situational forces and restraints in accounting for behaviour.

As to why very young children should differ from older children and adults in emphasizing situational causes for behaviour while neglecting dispositional ones is unclear. Ruble and Rholes (1981) believe that the following three factors may be involved. First, the thought processes of young children, as described by Piaget, are "realistic"--in other words, their thoughts about an object or their reaction to it are seen as being situated in and inseparable from the object. Consequently, when explaining the behaviour of other people, children tend to focus on the real, tangible properties of the person's situation. At the same time, the egocentrism of young children reduces their awareness not only of their own mental or psychological properties but also those of others. Ruble and Rholes have speculated that a decline in both realistic and egocentric thought is necessary before children will decrease their use of situational attributions, and increase their use of dispositional attributions.

Secondly, as Peevers and Secord (1973) suggested and as reinforced by Ruble and Rholes, it may be that very young children are unable to adequately process the substantial amount of information that is required for perceiving disposition as a cause of behaviour. Indeed, in order to perceive a disposition, a child must be able to remember relevant behaviour, disregard irrelevant behaviours, and recognize consistency in behaviour across time and places. Until the child is able to engage in this kind of information processing he/she may be unable to make dispositional attributions.

And thirdly, age-related changes in social experience may enhance

the development of dispositional attributions. While very young children may feel that they have very little control over their environment, older children increasingly realize that they are able to exert influence over events in their lives. At the same time parents more frequently use the child's intent as a basis for discipline and increasingly reinforce the idea that the child is personally responsible for his/her behaviour. These real-life experiences contribute to the child's understanding of the disposition-situation distinction and its application to the attribution process.

In summary, it appears that a developmental shift from situational attributions to dispositional attributions does occur, but this observation remains to be confirmed. Furthermore, it remains uncertain as to whether or not young children possess the ability to make dispositional attributions. It may be that the ability to explain an event or a behaviour according to either of the two types of attributions, will only be apparent if the methodologies of future studies are appropriately designed to allow for their expression. For example, Ruble and Rholes (1981) have predicted that children will first demonstrate their ability to draw inferences that are personal and stable (i.e., dispositional) in simple situations involving salient or memorable information.

Social Attribution, Stereotyping and the Elderly

From a developmental viewpoint, the maturation of cognitive structures influences the types of causal explanations available to the person. However, it also recognized that other factors influence the ways in which information is processed, for example, the content of the observed behaviour (Eisenger & Mills, 1968), the salience of the observed behaviour (Taylor & Fiske, 1978), actor-observer differences (Jones & Nisbett,

1971), the sex of the observed person (Deaux, 1976), and the age of the observed person (Reno, 1979; Sherman & Gold, 1978). A factor which is of special relevance to this discussion is that of expectancy. Expectancies for the behaviour of an individual or a group of individuals contribute to the processing of social information, and may reinforce the perception of inter-group differences (Deaux, 1976).

Based on her research regarding the effects of sex stereotyping, Deaux (1976) has argued that stereotypes of any kind will influence the attribution process. In the case of men and women, she observed that expectancies for the behaviour of an individual male or female are frequently derived from stereotyped assumptions made of women and men as groups. Consequently, the behaviour of the individual male or female is judged in conjunction with this set of stereotyped expectancies, and the resultant attributions will differ to the extent that the stereotyped expectations differ. It seems reasonable to assume that the same principles are applicable to the elderly since stereotyped expectancies for the elderly have been repeatedly demonstrated throughout the gerontological literature. For example, if it is the expectation that old people will fail at a task requiring competency, and this expectation is confirmed, the failure will be attributed to a lack of ability, a stable disposition; whereas the same behaviour for a young person will be attributed more frequently to a lack of effort, which represents a transient, situationally-specific variable. This hypothesis has received empirical support from a study conducted by Reno (1979). Thus stereotypes may play an important role in the selection of a particular attribution by influencing which information will be attended to and which information will be disregarded.

Rationale for the Present Study

While research findings tend to be inconsistent, the literature does suggest quite strongly that the elderly are perceived in terms of negative stereotypic traits and behaviours by both adults and children. Thus, an elderly person is not seen as an individual of a particular chronological age, but as a member of a group of old people who share not only physical characteristics, but also similar personalities, likes, dislikes, etc. This anti-individualistic view, which is the essence of stereotyping, has had and continues to have serious, widespread implications for the well-being of those who are old. It has allocated the elderly to an undefined or at least very restricted role in today's society.

Underlying this stereotyping phenomena is the prevailing belief that many behaviours in old age are inherently dictated by the aging process, and as such, they should be expected and accepted--or at least tolerated because they are unamenable to change even when change would be ordinarily desired. It would appear that many behaviours in old age are "explained away" as being dispositional, that is, the result of intractable qualities within the person, or dispositional in the sense of being an inevitable consequence of old age. Relevant situational factors which may have initiated or shaped the behaviour tend to be ignored. For example, behaviours associated with depression are often dismissed as being "just a sign of old age" whereas in a younger population the same behaviours are more consistently interpreted in view of potentially precipitating events in the environment--the death of a loved one, relocation, a chronic illness, etc.

It follows that the ways in which the elderly are perceived will largely determine how their behaviour is explained. To date, the research has been largely concerned with the content aspects of these perceptions and has tended to overlook the cognitive processes which give rise to them. Attribution theory provides a relevant framework within which to explore not only the specific contents of a perception, but also the processes potentially responsible for triggering and supporting various perceptions, i.e., the process of attributing causes to dispositional or situational factors. Hamilton (1979) has argued that our understanding of stereotyping can be facilitated by using an attributional perspective. Indeed, some precedent has already been set for using this approach to person-perception phenomena vis à vis the elderly (Banziger & Dreverstedt, 1982; Reno, 1979; Sherman & Gold, 1978). However, these studies used only adult subjects and concentrated on achievement-related behaviours.

The present study attempted to clarify and extend the limited body of research findings pertaining to children's perceptions of the elderly. In this study perceptions were defined as children's beliefs about the causes of behaviour. While previous studies have lacked a conceptual framework, this study used a social attribution model to investigate those processes which underlie children's perceptions, and more specifically it investigated whether or not a dispositional bias exists for explaining the behaviour of the elderly. To the author's knowledge, this is the first study in this area to use this approach with children. Furthermore, as a developmental study, it provides additional insight into whether or not a developmental trend occurs for situational-dispo-

situational attributions, and whether or not attributions vary as a function of perceived age.

Hypotheses

It was expected that attributions for any given behaviour would vary as a function of the age of the person about whom the attribution was being made. Specifically, it was expected that explanations for the behaviours of old people would be more dispositional than situational. This bias would be most apparent when the behaviour was held constant and attributions were elicited for different age groups. Furthermore, as suggested by previous research, it was expected that a developmental trend would emerge which would be characterized by a gradual shift from situational to dispositional attributions, regardless of the age of the target person.

The following major hypotheses were tested:

1. Attributions for the behaviour of old targets will be more dispositional and therefore less situational than attributions for the behaviour of younger targets.
2. As children grow older, they will make more dispositional than situational attributions, regardless of the age of the target person.

CHAPTER II

METHOD

The study was designed as a 2 x 2 x 2 x 4 x 2 x 4 factorial (order of interview items, sex of target, sex of subject, grade of subject, age of target, and behavioural description) with repeated measures on the last two factors.

Subjects

Sixteen children from each of grades 1, 4, 7, and 10, with approximate ages of 6, 9, 12, and 15 years respectively, were interviewed. At each grade level, half the subjects were boys and half were girls.

Materials

Photographs. Sixteen black and white photographs measuring 3 x 4 inches, with eight photographs portraying elderly individuals in the age range 65 to 80 years, and eight photographs portraying younger individuals in the age range 25 to 40 years, were used as target stimuli. Half the pictures in each age group were males, and the other half were females, and each picture was limited to an "above shoulders presentation."

Forty judges, 16 males and 24 females, were recruited from an introductory psychology class. For the males, ages ranged from 18 to 49 with a mean age of 21.7 years, and for females, ages ranged from 18 to 35 with a mean age of 19.0 years. Judges were asked to rate the

"emotionality" of each photograph along a seven point scale ranging from a negative emotional state (1) to a positive emotional state (7), with (4) representing a neutral emotional state. Judges were also asked to estimate the age of the person in the photograph.

Photographs which met the criteria of a neutral facial expression, that is, photographs which had a rating within the 3.5 to 4.5 range, and which accurately depicted an individual in the appropriate age range, were selected from a pool of fifty-seven photographs. Appendix A describes the rating scale and the instructions which were given to the judges. Appendix B reports the various ratings obtained for each photograph.

The photographs were used during the interview to maintain interest, and most importantly to provide a visual context in which children, especially young children, have demonstrated the ability to make accurate age judgments (Seefeldt, Jantz, Galper & Serock, 1977a; Weinberger, 1979). Furthermore, to ensure that the children had discriminated accurately between the target stimuli, they were required to sort the photographs into "young" and "old" categories after all the interview items had been administered. Interview data was disregarded for any child who failed to make the appropriate age distinction for each of the pictures. Three children in grade 1, and one child in grade 4 were unsuccessful in completing this task, and consequently additional children were interviewed to replace this "lost" data.

Interview Items

Four behavioural descriptions were constructed using the following adjectives: sad, complaining, kind and happy. Pilot testing had indi-

cated that these four words were understood by children at the four grade levels. Each behavioural description was accompanied by a picture of either an old or young person. Following the presentation of the behavioural description each child was asked an open-ended question. The purpose of this question was to elicit children's spontaneous causal explanations for the various behaviours. Responses to this open-ended question, as well as all other questions which were asked during the interview, were simultaneously tape recorded and transcribed verbatim, and assigned to one of two causal categories: dispositional and situational. The criteria for these categories are described in Appendix C.

Attributional probes were administered to children who failed to include both dispositional and situational content in their initial responses. If a child's response to the first question was of a dispositional nature, the child was given a situational probe; if a child's response to the first question was of a situational nature, the child was given a dispositional probe. The dispositional and situational probe were in the form of a forced-choice question which required a "yes" or "no" response.

Under conditions where a child had made either a dispositional or situational attribution in response to the first open-ended question of the interview, a "no" response given to either a dispositional or situational probe was followed by the alternate probe. Thus if a child spontaneously made a dispositional attribution, and subsequently replied "no" to a situational probe, the administration of the dispositional probe confirmed whether or not the child was indeed using only a dispositional explanation. A similar procedure was used in the case of a spontaneous

situational attribution.

Whenever a "yes" response was given to either the dispositional or situational probe, it was followed by an open-ended question. Each probe had its own corresponding open-ended question. The purpose of these two open-ended questions was to check on the child's interpretation of the attributional probe as well as the consistency of the child's thoughts. In other words, these questions provided additional clarification as to whether or not a child was implying a dispositional or situational explanation for the behaviour of the target person under consideration. If during the course of the interview, a child gave both dispositional and situational attributions, he/she was required to choose which attribution was more likely to be accurate. This choice will be subsequently referred to as the "final decision".

The interview was comprised of eight items (4 behavioural descriptions x 2 target age groups x 1 target sex). Pilot testing had indicated that eight items was the maximum number which could be used with younger children without jeopardizing their motivation to complete the task.

The following is an example of the basic interview format for one behavioural description. For a more complete outline of the interview format see Appendix D.

Behavioural Description: This person is sad.

1. Open-Ended Question: Why do you think this person is sad?
2. a) Dispositional Probe: Do you think this person is the kind of person who is sad almost always? (yes/no).
 - b) Dispositional: Open-Ended Question: Why would a person like this person be sad almost always?

3. a) Situational Probe: Do you think something just happened to make this person sad? (yes/no).
- b) Situational: Open-Ended Question: What might have just happened to make this person sad?

Procedure

The children were interviewed individually. After rapport had been established each child was instructed that he/she would be shown a picture of a person and be given a brief description about the person. Afterwards he/she would be asked to discuss with the interviewer what he/she thought about the person in the picture. It was emphasized that there were no right or wrong answers, and that the interviewer only wished to learn what different children think about the persons in the pictures. Each behavioural description was given twice by the interviewer, and each child was administered the eight items. Although the interview followed the format outlined in the previous section, the interview was conducted in a flexible manner in order to provide an adequate assessment of children's causal explanations.

At each grade level half the boys received all male photographs while the remaining boys received all female photographs. Similarly, at each grade level half the girls received all female photographs while the remaining girls received all male photographs.

Two orders of interview items (photograph plus behavioural description) were used to determine, and control for order effects. The assignment of behavioural descriptions to the photographs was counter-balanced (refer to Appendix E). One half of the boys and one half of the girls at each grade level received one order of presentation (order

A), while the remaining children received the alternate order of presentation (order B). Each order of presentation was randomized with the following constraints taken into consideration:

1. The same behavioural description could not occur consecutively.
2. No more than two pictures representing the same age group could occur consecutively.
3. One order would be randomly chosen to begin with a picture of a young person and the alternate order by default, would begin with a picture of an old person.

After the eight items had been given, each child was asked to complete the age judgment task. Subsequently, each child was thanked for his or her participation in the study. Each session required approximately 30-45 minutes to complete the interview items.

CHAPTER III

RESULTS

Inter-rater Reliability

Children's responses were classified as either dispositional or situational. To assess the reliability of these scoring categories 4 out of 16 protocols at each grade level were randomly selected and independently scored by two judges. Reliability was calculated as the percentage of responses scored identically. The inter-rater reliability check for the scoring of the first spontaneous response given to each interview item indicated 90.6% agreement at the grade 1 level, 100% agreement at the grade 4 level, 90.6% agreement at the grade 7 level, and 90.6% agreement at the grade 10 level. An additional reliability check was made to determine the extent of agreement between raters as to whether or not a child had given both dispositional and situational responses to an interview item. Agreement was 90.6% at the grade 1 level, 96.8% at the grade 4 level, 96.8% at the grade 7 level, and 90.6% at the grade 10 level.

Neutrality of the Photographs

Chi-square analyses were used to determine whether or not the four photographs in each of the categories "old males", "young males", "old females", and "young females" differed in their attribution ratings. It

was observed that there were no significant differences in the attribution ratings within each category, that is, none of the photographs received attributions that were significantly more dispositional or situational than did any other photograph. This finding provided additional evidence that the photographs used in this study were of a neutral character.

Effects of Order of Presentation

A six-way ANOVA (order x target sex x sex x grade x target age x behavioural description), with repeated measures on the last two factors was performed for the childrens' attributions (see Appendix F). In this analysis the factors were:

- (A) the order of interview items, that is, order A or order B.
- (B) the target sex (TSEX), that is, whether or not the photograph depicted a male or female.
- (C) the sex of the child (SEX).
- (D) the child's grade level: 1, 4, 7, or 10.
- (E) the target age (TAGE), that is, whether or not the photograph depicted a young or old person.
- (F) the behavioural description (BEH) which accompanied each photograph: sad, complaining, kind, or happy.

The analysis of variance indicated that there were no significant main effects for order. However, there were significant interactions involving grade which required further investigation; that is, there was a significant Order x Grade interaction, $F(3,32) = 3.46$, $p < .05$, and a significant Order x Sex x Grade interaction, $F(3,32) = 3.35$, $p < .05$ (see Table 1 for mean ratings).

TABLE 1

Mean Attribution Ratings for Grade According to
Sex, Target Age, Target Sex, and Order

Grade	Sex	Target Age		Target Sex		Order	
		Old	Young	Male	Female	A	B
1 (1.54) Overall mean rating	Boys	1.47	1.53	1.53	1.47	1.75	1.25
	Girls	1.56	1.59	1.47	1.68	1.66	1.50
	Combined	1.52	1.56	1.50	1.58	1.70	1.38
4 (1.46) Overall mean rating	Boys	1.34	1.53	1.50	1.39	1.53	1.34
	Girls	1.50	1.47	1.47	1.50	1.31	1.66
	Combined	1.42	1.50	1.49	1.45	1.42	1.50
7 (1.48) Overall mean rating	Boys	1.56	1.50	1.72	1.34	1.50	1.56
	Girls	1.31	1.56	1.59	1.28	1.44	1.44
	Combined	1.44	1.53	1.66	1.31	1.47	1.50
10 (1.42) Overall mean rating	Boys	1.41	1.50	1.44	1.47	1.41	1.50
	Girls	1.25	1.53	1.34	1.44	1.47	1.31
	Combined	1.33	1.51	1.39	1.45	1.44	1.41
Across Grade Means (1.48)		1.43	1.53	1.51	1.45	1.51	1.45

Note. Dispositional Attribution = 1
Situational Attribution = 2

Subsequent analyses revealed that the effects of order were confined to grade one. The responses of children who had received order B were more dispositional than the responses of children who had received order A. Apparently order B, which begins with the behavioural description "kind" was responsible for creating a primacy effect in that the children's responses were thereafter more dispositional. Moreover, grade one boys were the most susceptible to this primacy effect. One can speculate that the behaviour "kind" triggered this primacy effect because it is a behaviour which appears to be judged consistently, as being more dispositional than situational. In contrast the behaviour "sad", which begins order A, is judged to be neither strongly dispositional nor strongly situational. An inspection of the mean ratings for each of the four behaviours used in the present study supports this interpretation (refer to Table 2). Since order was not really a variable of interest and because it did not interact with variables of interest except as previously described, order was dropped from subsequent analyses. The effect of this decision was to slightly increase the error variance, thus making tests of significance more conservative.

Subsequent Analysis

A five-factor analysis of variance (Target Sex x Sex x Grade x Target Age x Behaviour), with repeated measures on the last two factors, was performed for the children's attributions, which were given in response to the first open-ended question for each interview item (see Table 3).

It had been anticipated that attributions for any given behaviour would vary as a function of the age of the person about whom the attri-

TABLE 2

Mean Attribution Ratings for Behaviour
According to Target Sex and Target Age

Behaviour	Overall Rating	Target Sex		Target Age	
		Male	Female	Old	Young
Sad	1.60	1.63	1.58	1.45	1.75
Complaining	1.66	1.70	1.60	1.63	1.69
Kind	1.09	1.06	1.10	1.13	1.05
Happy	1.56	1.64	1.48	1.50	1.63
Across Behaviours	1.48	1.51	1.44	1.43	1.53

Note. Dispositional Attribution = 1

Situational Attribution = 2

TABLE 3

Analysis of Variance for Target Sex (TSEX),
Sex of Child (SEX), Grade (GR), Target Age (TAGE),
Behaviour (BEH), and Children's Attributions

Source of Variation	SS	df	MS	F
<u>Between Subjects</u>	<u>26.7188</u>	<u>63</u>		
A (TSEX)	0.5000	1	0.5000	1.20
B (SEX)	0.0078	1	0.0078	0.02
C (GR)	0.9219	3	0.3073	0.74
AB	0.6328	1	0.6328	1.51
AC	3.6718	3	1.2240	2.93*
BC	0.6641	3	0.2214	0.53
ABC	0.2578	3	0.0859	0.21
Subj. w. groups	20.0625	48	0.4180	
<u>Within Subjects</u>	<u>101.0000</u>	<u>448</u>		
D (TAGE)	1.3203	1	1.3203	10.04**
AD	0.0078	1	0.0078	0.06
BD	0.1250	1	0.1250	0.95
CD	0.3516	3	0.1172	0.89
ABD	0.0313	1	0.0313	0.24
ACD	0.3203	3	0.1068	0.81
BCD	1.3281	3	0.4427	3.37*
ABCD	0.2031	3	0.0677	0.51
D x subj. w. groups	6.3125	48	0.1315	
E (BEH)	26.6094	3	8.8698	43.02**
AE	0.7031	3	.2338	1.14
BE	0.0391	3	.0130	0.06
CE	1.4375	9	.1597	0.77
ABE	0.7266	3	.2422	1.17
ACE	2.3750	9	.2639	1.28
BCE	1.1641	9	.1293	0.63
ABCE	2.2578	9	.2509	1.22
E x subj. w. groups	29.6875	144	.2062	
DE	2.3203	3	0.7734	6.04**
ADE	0.0703	3	0.0234	0.18
BDE	0.2344	3	0.0781	0.61
CDE	1.3828	9	0.1536	1.20
ABDE	0.6406	3	0.2135	1.67
ACDE	0.9766	9	0.1085	0.85
BCDE	1.0625	9	0.1181	0.92
ABCDE	0.8750	9	0.0972	0.76
DE x subj. w. groups	18.4375	144	0.1280	
<u>Total</u>	<u>127.7188</u>	<u>511</u>		

* p < .05

** p < .01

bution was being made. More specifically, hypothesis 1 had predicted that attributions for the behaviour of elderly targets would be more dispositional and therefore less situational than attributions for the behaviour of younger targets. Keeping in mind that dispositional attributions received a rating of (1) and situational attributions received a rating of (2), it is obvious that old targets received more dispositional attributions ($\bar{X} = 1.43$), whereas young targets received more situational attributions ($\bar{X} = 1.53$). Furthermore, the analysis of variance indicated a significant main effect for Target Age, $F(1,48) = 10.04$ $p < .01$, thereby providing additional support for hypothesis 1.

Support for hypothesis 2, which had predicted that as children grow older their attributions would become increasingly more dispositional regardless of the age of the target person, was not found. While the percentage of children making dispositional attributions showed some tendency to increase with grade level (46% at grade 1, 54% at grade 4, 52% at grade 7, and 58% at grade 10), there was no statistically significant difference across grades. Children at all four grade levels demonstrated the ability to make both dispositional and situational attributions, and showed only minimal preference in their usage.

It should also be noted that there was no significant Grade x Target Age interaction. However, the mean attribution ratings at each grade level indicated that old targets were rated consistently as being more dispositional than young targets (Table 1). When separate ANOVAS were performed for each of the four grades (Tables 4, 5, 6, 7), a significant difference in the attribution ratings for old and young targets was found at the grade 7 and 10 levels, $F(1,12) = 9.00$ $p < .05$, $F(1,12) = 8.00$, $p < .05$ respectively. Adolescents rated the behaviour of old targets as

TABLE 4

Analysis of Variance for Target Sex (TSEX), Sex of Child (SEX),
Target Age (TAGE), Behaviour (BEH), and Attributions of Grade 1 Children

Source of Variation	SS	df	MS	F
<u>Between Subjects</u>	<u>9.1797</u>	<u>15</u>		
A (TSEX)	0.1953	1	0.1953	0.29
B (SEX)	0.1953	1	0.1953	0.29
AB	0.6328	1	0.1953	0.29
Subj. w. groups	8.1563	12	0.6780	
<u>Within Subjects</u>	<u>22.6250</u>	<u>112</u>		
C (TAGE)	0.0703	1	0.0703	0.42
AC	0.1953	1	0.1953	1.15
BC	0.0078	1	0.0078	0.05
ABC	0.0703	1	0.0703	0.42
C x subj. w. groups	2.0313	12		
D (BEH)	6.0859	3	2.0286	11.98**
AD	0.5859	3	0.1953	1.15
BD	0.4609	3	0.1536	0.91
ABD	1.7734	3	0.5911	3.49*
D x subj. w. groups	6.2188	36	0.1727	
CD	0.4609	3	0.1536	1.44
ACD	0.0859	3	0.0286	0.27
BCD	0.1484	3	0.0495	0.46
ABCD	0.5859	3	0.1953	1.83
CD x subj. w. groups	3.8438	36	0.1068	
<u>Total</u>	<u>31.8047</u>	<u>127</u>		

* $p < .05$

** $p < .01$

TABLE 5

Analysis of Variance for Target Sex (TSEX), Sex of Child (SEX),
Target Age (TAGE), Behaviour (BEH), and Attributions of Grade 4 Children

Source of Variation	SS	df	MS	F
<u>Between Subjects</u>	<u>7.6797</u>	<u>15</u>		
A (TSEX)	0.0703	1	0.0703	0.11
B (SEX)	0.0703	1	0.0703	0.11
AB	0.1953	1	0.1953	0.32
Subj. W. Groups	7.3438	12	0.6120	
<u>Within Subjects</u>	<u>24.1248</u>	<u>112</u>		
C (TAGE)	0.1953	1	0.1953	1.06
AC	0.0703	1	0.0703	.38
BC	0.3828	1	0.0078	2.07
ABC	0.0078	1	0.0078	0.04
C x subj. w. groups	2.2188	12	0.1849	
D (BEH)	8.1484	3	2.7161	14.69*
AD	0.1484	3	0.0495	0.27
BD	0.3984	3	0.1328	0.72
ABD	0.3984	3	0.1328	0.72
D x subj. w. groups	7.5331	36	0.2092	
CD	0.6484	3	0.2161	2.13
ACD	0.1484	3	0.0495	0.49
BCD	0.0859	3	0.0286	0.28
ABCD	0.0859	3	0.0286	0.28
CD x subj. w. groups	3.6563	36	0.1016	
<u>Total</u>	<u>31.8045</u>	<u>127</u>		

* $p < .01$

TABLE 6

Analysis of Variance for Target Sex (TSEX), Sex of Child (SEX),
Target Age (TAGE), Behaviour (BEH), and Attributions of Grade 7 Children

Source of Variation	SS	df	MS	F
<u>Between Subjects</u>	<u>4.9689</u>	<u>15</u>		
A (TSEX)	3.7813	1	3.7813	51.86**
B (SEX)	0.2813	1	0.2813	3.86
AB	0.0313	1	0.0313	0.43
Subj. w. groups	0.8750	12		
<u>Within Subjects</u>	<u>26.9999</u>	<u>112</u>		
C (TAGE)	0.2813	1	0.2813	9.00*
AC	0.0313	1	0.0313	1.00
BC	0.7813	1	0.7813	25.00**
ABC	0.0313	1	0.0313	1.00
C x subj. w. groups	0.3750	12		
D (BEH)	9.1563	3	3.0521	97.61**
AD	2.1563	3	0.7188	23.00**
BD	0.1563	3	0.0521	1.67
ABD	0.1563	3	0.0521	1.67
D x subj. w. groups	8.3750	36	0.2326	
CD	0.5313	3	0.1771	1.46
ACD	0.0313	3	0.1771	0.09
BCD	0.2813	3	0.0938	0.77
ABCD	0.2813	3	0.0938	0.77
CD x subj. w. groups	4.3750	36	0.1215	
<u>Total</u>	<u>31.9688</u>	<u>127</u>		

* $p < .05$

** $p < .01$

TABLE 7

Analysis of Variance for Target Sex (TSEX), Sex of Child (SEX),
Target Age (TAGE), Behaviour (BEH), and Attributions of Grade 10 Children

Source of Variation	SS	df	MS	F
<u>Between Subjects</u>	<u>4.2503</u>	<u>15</u>		
A (TSEX)	0.1250	1	0.1250	0.41
B (SEX)	0.1250	1	0.1250	0.41
AB	0.3125	1	0.3125	0.10
Subj. w. groups	3.6878	12	0.3073	
<u>Within Subjects</u>	<u>26.9685</u>	<u>112</u>		
C (TAGE)	1.1250	1	1.1250	8.00*
AC	0.0313	1	0.0313	0.22
BC	0.2813	1	0.2813	2.00
ABC	0.1250	1	0.1250	0.89
C x subj. w. groups	1.6875	12	0.1406	
D (BEH)	4.6523	3	1.5508	11.04**
AD	0.1875	3	0.0625	0.44
BD	0.1875	3	0.0625	0.44
ABD	0.6563	3	0.2188	1.56
D x subj. w. groups	7.5625	36	0.2101	
CD	2.0625	3	0.6875	3.77*
ACD	0.7813	3	0.2604	1.43
BCD	0.7813	3	0.2604	1.43
ABCD	0.5625	3	0.1875	1.03
CD x subj. w. groups	6.5625	36	0.1823	
<u>Total</u>	<u>31.2188</u>	<u>127</u>		

* $p < .05$

** $p < .01$

significantly more dispositional than the behaviour of young targets.

While Target Sex did not emerge as a significant main effect, its influence was observed in a significant Target Sex x Grade interaction, $F(3,48) = 2.93, p < .05$. There was a slight tendency to rate the behaviour of female targets as more dispositional than the behaviour of male targets (Tables 1, 2). This tendency was most pronounced at the grade 7 level. Indeed, grade 7 children made over twice as many dispositional attributions as situational attributions for female targets. In contrast, they made over twice as many situational attributions as dispositional attributions for male targets.

The influence of sex, in this case, the sex of the child, was also observed in significant Sex x Grade x Target Age interaction, $F = (3,48) = 3.37, p < .05$. A preliminary analysis of variance of simple effects indicated that for girls, attribution ratings as reflected in a significant Grade x Target Age interaction, $F(3,48) = 2.95, p < .05$, were significantly different than the attribution ratings made by boys (Table 8). A subsequent analysis of variance of simple effects for each Target Age revealed that girls across the four grade levels rated the behaviour of old targets as being significantly more dispositional than the behaviour of young targets, $F(3,48) = 5.37, p < .05$ (Table 9). As an inspection of the means in Table 1 suggests, and as verified by the Scheffé test for paired comparisons, grade 7 and 10 girls differed significantly from girls in grades 1 and 4, in their ratings of old targets ($p < .05$). Girls in grade 7 and 10 rated old targets as being more dispositional than did girls in the younger grades.

The behavioural descriptions which were used to accompany each

TABLE 8

Analysis of Variance of Simple Effects of C (Grade) x
D (Target Age) for all Levels of B (Sex)

Source of Variation	SS	df	MS	F
CD at B ₁ (females)	.3893	1	.3893	2.95*
CD at B ₂ (males)	.1706	1	.1706	1.29

* $p < .05$

TABLE 9

Analysis of Variance of Simple Effects of B (Sex-Female)
for all Levels of D (Target Age)

Source of Variation	SS	df	MS	F
B at D ₁ (old)	2.1250	3	.7083	5.37*
B at D ₂ (young)	.2734	3	.0911	.69

* $p < .05$

photograph produced a highly significant main effect, $F(3,144) = 43.02$, $p < .01$. Furthermore, a significant Target Age x Behaviour interaction was found, $F(3,144) = 6.04$, $p < .01$. An examination of Table 2 reveals that for all behaviours, with the exception of "kind", old targets were rated as being more dispositional than were young targets. However, separate ANOVAS for each of the four behaviours (Tables 10, 11, 12, 13) demonstrated that only for the behaviour "sad" was there a significant main effect for Target Age, $F(1,48) = 16.16$, $p < .01$. In other words, for the behaviour "sad", old targets were rated as being more dispositional than were young targets. Significant differences between the attribution ratings for young and old targets were not found for complaining, kind, or happy.

Supplementary Analyses

Children who gave both dispositional and situational responses to an interview item were required to make a final decision, that is, they were required to choose between the dispositional and situational attribution (see Appendix D). Chi-square analyses revealed that this final decision was not influenced by Target Age, the Sex of the child, Grade, or Behaviour. However, a significant effect was found for Target Sex, $\chi^2(1) = 9.44$, $p < .01$. Female targets were given significantly more dispositional attributions than situational attributions. In addition, when girls were making a "final decision" for old female targets, they made significantly more dispositional attributions, $\chi^2(1) = 4.054$, $p < .04$. This tendency was not observed when girls made attributions for old male targets or for young targets of either sex, nor when boys made attributions for young and old targets of either sex.

TABLE 10

Analysis of Variance for Target Sex (TSEX), Sex of Child (SEX),
Grade (GR), Target Age (TAGE), and Children's Attributions
for the Behaviour Sad

Source of Variation	SS	df	MS	F
<u>Between Subjects</u>	<u>17.1795</u>	<u>63</u>		
A (TSEX)	0.0703	1	0.0703	0.27
B (SEX)	0.0078	1	0.0078	0.03
C (GR)	0.4609	3	0.1536	0.60
AB	0.1953	1	0.1953	0.76
AC	2.2109	3	0.7370	2.86*
BC	0.6484	3	0.2161	0.84
ABC	1.2109	3	0.4036	1.57
Subj. w. groups	12.3750	48	0.2578	1.48
<u>Within Subjects</u>	<u>13.4998</u>	<u>64</u>		
D (TAGE)	2.8203	1	2.8203	16.16**
AD	0.0078	1	0.0078	0.04
BD	0.0703	1	0.0703	0.40
CD	0.5859	3	0.1953	1.12
ABD	0.1953	1	0.1953	1.12
ACD	0.1484	3	0.0495	0.28
BCD	0.7109	3	0.2370	1.36
ABCD	0.5859	3	0.1953	1.12
D x subj. w. groups	8.3750	48	0.1745	
<u>Total</u>	<u>30.6793</u>	<u>127</u>		

* $p < .05$

** $p < .01$

TABLE 11

Analysis of Variance for Target Sex (TSEX), Sex of Child (SEX),
Grade (GR), Target Age (TAGE), and Children's Attributions
for the Behaviour Complaining

Source of Variation	SS	df	MS	F
<u>Between Subjects</u>	20.1564	63		
A (TSEX)	0.2813	1	0.2813	0.90
B (SEX)	0.3125	1	0.3125	0.10
C (GR)	1.1875	3	0.3958	1.27
AB	1.1240	1	1.1250	3.60
AC	0.7813	3	0.2604	0.83
BC	0.9063	3	0.3021	0.97
ABC	0.5625	3	0.1875	0.60
Subj. w. groups	15.0000	48	0.3125	
<u>Within Subjects</u>	8.9992	64		
D (TAGE)	0.1250	1	0.1250	1.00
AD	0.0313	1	0.0313	0.25
BD	0.2813	1	0.2813	2.25
CD	0.3125	3	0.1042	0.83
ABD	0.1250	1	0.1250	1.00
ACD	0.6563	3	0.2188	1.75
BCD	1.2813	3	0.4271	3.42*
ABCD	0.1875	3	0.0625	0.50
D x subj. w. groups	6.0000	48	0.1250	
<u>Total</u>	29.1556	127		

p < .05

TABLE 12

Analysis of Variance for Target Sex (TSEX), Sex of Child (SEX),
Grade (GR), Target Age (TAGE), and Children's Attributions
for the Behaviour Kind

Source of Variation	SS	df	MS	F
<u>Between Subjects</u>	<u>6.5545</u>	<u>63</u>		
A (TSEX)	0.0707	1	0.0703	0.66
B (SEX)	0.0078	1	0.0078	0.07
C (GR)	0.5234	3	0.1745	1.63
AB	0.0078	1	0.0078	0.07
AC	0.5234	3	0.1745	1.63
BC	0.0859	3	0.0286	0.27
ABC	0.2109	3	0.0703	0.66
Subj. w. groups	5.1250	48	0.1068	1.95
<u>Within Subjects</u>	<u>3.4998</u>	<u>64</u>		
D (TAGE)	0.1953	1	0.1953	3.57
AD	0.0078	1	0.0078	0.14
BD	0.0078	1	0.0078	0.14
CD	0.2734	3	0.0911	1.67
ABD	0.0703	1	0.0703	1.29
ACD	0.0859	3	0.0286	0.52
BCD	0.0859	3	0.0286	0.52
ABCD	0.1484	3	0.0495	0.90
D x subj. w. groups	5.1250	48	0.1068	
<u>Total</u>	<u>10.0543</u>	<u>127</u>		

TABLE 13

Analysis of Variance for Target Sex (TSEX), Sex of Child (SEX),
Grade (GR), Target Age (TAGE), and Children's Attributions
for the Behaviour Happy

Source of Variation	SS	df	MS	F
<u>Between Subjects</u>	<u>21.5002</u>	<u>63</u>		
A (TSEX)	0.7813	1	0.7813	2.17
B (SEX)	0.0000	1	0.0000	0.00
C (GR)	0.1875	3	0.0625	0.17
AB	0.0313	1	0.0313	0.09
AC	2.5313	3	0.8438	2.35
BC	0.1875	3	0.1771	0.49
ABC	0.5313	3	0.1771	0.49
Subj. w. groups	17.2500	48	0.3594	
<u>Within Subjects</u>	<u>10.0002</u>	<u>64</u>		
D (TAGE)	0.5000	1	0.5000	3.10
AD	0.0313	1	0.0313	0.19
BD	0.0000	1	0.0000	0.00
CD	0.5625	3	0.1875	1.16
ABD	0.2813	1	0.2813	1.74
ACD	0.4063	3	0.1354	0.84
BCD	0.3125	3	0.1042	0.65
ABCD	0.1563	3	0.0521	0.32
D x subj. w. groups	7.7500	48	0.1615	
<u>Total</u>	<u>31.5004</u>	<u>127</u>		

Summary

In summary, support for hypothesis 1 which had predicted that children's attributions for the behaviour of elderly targets would be more dispositional, and therefore less situational than attributions for the behaviour of younger targets was found. While there were no significant differences in attribution ratings between young and old targets at the grade 1 and 4 levels, children in grades 7 and 10 consistently rated the behaviour of old targets as being significantly more dispositional than young targets. Furthermore, girls in grades 7 and 10 showed the strongest tendency to express a dispositional bias for the behaviour of old targets. An interaction effect between behaviour and target age revealed that there was a significant difference in attribution ratings between young and old targets only for the behaviour "sad". A slight tendency to rate female targets as being more dispositional than male targets was observed in an interaction effect between target sex and grade; this tendency was most clearly apparent at the grade 7 level where both boys and girls rated female targets as being significantly more dispositional than male targets. Support for hypothesis 2 which had predicted that children's attributions would become increasingly more dispositional as they grew older, regardless of the age of the target person, was not found. The data indicated that children across the four grade levels showed no significant preference in making either dispositional or situational attributions.

CHAPTER IV

DISCUSSION

The purpose of this study was to investigate whether or not children's attributions would vary as a function of the age of the target about whom the attribution was being made. It had been hypothesized that attributions for the behaviour of elderly people would be more dispositional and therefore less situational than attributions for the behaviour of young people.

A significant main effect for Target Age confirmed that differences in explanation for the behaviour of the two age groups had occurred. Children evidenced a marked tendency to attribute the behaviour of old people to disposition, that is, to permanent qualities within the person. For example, when asked why an old person was sad, children often said "that's the way people are when they get old; they get sad and lonely". On the other hand, when asked to explain the same behaviour for a young person, there was the tendency to attribute the behaviour to situational factors of a relatively transient nature, for example, "this person is sad because he probably just failed a test"--the implication being that if there hadn't been a failed test this person would not be sad. In contrast the old person was perceived as being essentially sad regardless of his/her particular circumstances. These findings support the hypothesis that

a dispositional bias exists for explaining the behaviour of the elderly.

It can be argued that a dispositional bias will be most apt to operate when explanations are sought for the behaviour of any group in society which has been identified as being essentially homogeneous across a variety of characteristics, attitudes, habits, etc. The source of the dispositional bias may be traced to existing stereotypes for these groups. Once an individual has been identified as a representative of a particular group, certain categorical assumptions or expectancies which are based on stereotypes will be made. Deaux (1976) has described how attributions for successful or unsuccessful performance are influenced by stereotypic expectancies for male and female behaviour. Hamilton (1979) by way of example, has stated that "when a person's ethnicity serves as a cue which increases the likelihood of the perceiver making certain internal attributions, then stereotyping has occurred" p. 54. These expectancies which are part of one's cognitive structure will affect the kinds of attribution which are selected for explaining any given behaviour. Consequently, the behaviour of any member of a stereotyped group will be more consistently interpreted as being dispositionally-based, that is, the result of relatively stable factors which are intrinsic to the person. Situational interpretations which imply that the behaviour is highly variable and largely determined by factors external to the person would not logically follow from stereotypic expectancies which require stability and uniformity for behaviour. Furthermore, it is very likely that the dispositional bias acts as a reinforcer for prevailing stereo-

types which by definition are characterized by rigidity and resistance to change. Since the elderly form a social group which is associated with numerous stereotypes (e.g., Bennett; 1976; Harris, 1975; McTavish, 1971), it is not surprising that findings of this study confirmed the presence of a dispositional bias when causal explanations were sought for their behaviour.

While Target Age emerged as a significant main effect, with old targets receiving more dispositional attributions than young targets, some caution must be exercised in interpretation in view of the significant Target Age x Behaviour interaction. It will be recalled that a significant main effect for Target Age was subsequently found only for the behaviour "sad", that is, old targets who were described as sad were rated as being more dispositional than were young targets who were described as sad. With respect to the other behaviours, significant differences between the attribution ratings for young and old targets were not found, although an examination of the means obtained for each of the behaviours suggested that for both "complaining" and "happy", old targets were rated as being more dispositional. However, while the interpretation of many behaviours will reflect a general tendency to attribute causation to dispositional factors when an old person's behaviour is involved, it is reasonable to speculate that the dispositional bias will be most readily detected for those behaviours which are strongly associated with stereotypic expectancies. Since the elderly are frequently identified as a group which is "in the least happy or fortunate time of life" (McTavish, 1971, p. 97), it is not surprising that the behaviour "sad" was particularly powerful in revealing a dispositional bias. Additional research is needed to clarify the nature

of the relationship between causal attributions and behaviours which have been specifically selected on the basis of known stereotypes or which have been randomly selected to investigate the presence of unrecognized stereotypes.

Since the methodology of this study did not provide dispositional and/or situational information about the person and the context in which he/she was behaving, the photographs which were used to accompany each behavioural description probably acted in a way similar to projective stimuli. This absence of information may have made the requirements of the task somewhat artificial. Under these conditions children may have been "forced" to rely on stereotypic expectancies to explain why a behaviour had occurred, and of course, stereotypic expectancies would be most readily available for old persons. A promising research direction would be to require children to explain the same behaviour for both young and old people while varying the amount of dispositional and situational information. This additional input would create a more real-life context for eliciting a causal analysis, and would hopefully provide some insight as to the conditions under which a dispositional bias operates in the everyday interpretation of old people's behaviour.

One factor which influenced the expression of a dispositional bias was the child's age. The attributions of young children, those in grades 1 and 4, did not reflect a dispositional bias whereas children at the upper grade levels, 7 and 10, consistently rated the behaviour of old targets as being significantly more dispositional than young targets. A possible explanation is that older children by virtue of

their long-term exposure have had the opportunity to internalize cultural stereotypes, and therefore, they are more likely to demonstrate a dispositional bias.

Girls in grades 7 and 10 showed the strongest tendency of all grade and sex groups to make dispositional attributions for the behaviour of the elderly. The attributions of boys between grades 7 and 10 became increasingly more dispositional for old targets, however, girls' attributions which were also becoming increasingly more dispositional for old targets were consistently more dispositional than boys at both grade levels. At no point did the boys appear to "catch up". Girls, because of their socialization, may expect to ultimately assume caretaking roles, in this case the care of the elderly, and consequently they learn more quickly society's stereotypes. Thus girls may perceive the elderly as a more homogeneous group than do their male counterparts - such a perception would help to explain their bias toward dispositional attributions. This finding is somewhat reminiscent of the Lister, Signori, and Kozak study (Note 2), which found that grade 7 girls reported more information about the elderly and assigned more unfavorable qualities to the elderly than did grade 7 boys. The authors suggested that sex-role expectancies may have contributed to the differences in response for the two sexes. Another possible explanation is that by early adolescence, girls have learned that their status as females is largely determined by their youthful attractiveness (Hyde & Rosenberg, 1980). Since a decline in this very quality has been strongly associated with the aging process, old age is perceived as a negative time in one's life, especially by women. It is

not surprising that data from the supplementary analysis indicated that girls rated old female targets as being significantly more dispositional than situational, whereas comparable ratings for old males, and young males and females indicated no significant differences in attributions. Boys, on the other hand, may not be so acutely threatened by the prospect of old age because its implications for them are less immediately obvious. Therefore, they are less likely to manifest a dispositional bias at least to the same extent. Since the sex of the perceiver has been largely ignored in previous studies these findings should alert researchers to its potential relevance.

It was found that the sex of the target person, regardless of his/her age, also influenced the attribution process. Female targets tended to receive more dispositional attributions than male targets. This tendency was particularly apparent at the grade 7 level where female targets received over twice as many dispositional attributions as situational attributions, and male targets received over twice as many situational attributions as dispositional attributions. Given that there is some evidence that adults perceive the behaviour of females as being more dispositional than the behaviour of males, for example; Deaux (1976) reported that women's failures were more frequently attributed to the internal factor of ability whereas men's failures were more frequently attributed to the more variable factor of effort, it is somewhat puzzling that the trend toward more dispositional attributions for females was not continued at the grade 10 level. However, the limited and rather tentative nature of this evidence suggests that another line of inquiry should be pursued in trying to understand the discrepancy observed between the grade 7 and 10 children. A possible

explanation is that grade 7 children were functioning according to Peck's (1975) second stage of gender-role development whereas children at the grade 10 level were functioning at the third stage. In the second stage, which peaks in adolescence, children know the rules of gender-role, rigidly adhere to them, and attempt to make others conform to them. It is not until the third stage, and this stage is not reached by everyone, that individuals are able to transcend the restrictions of traditional gender-roles and allow flexibility. Thus, children who are at the second stage would be the most likely to make dispositional attributions for the behaviour of females if indeed society has more stereotypic expectations for female behaviour than for male behaviour. Individuals who have reached the third stage should indicate no bias. Irrespective of these various explanations the most critical feature of the data is that they suggest that a dispositional bias may operate not only as a function of the age of the target but also as a function of the sex of the target.

Of particular interest was the finding that boys and girls across the four grade levels (1, 4, 7, 10) demonstrated the ability to make both dispositional and situational attributions. Probes of either a dispositional-nature (e.g., Do you think this is the kind of person who is sad almost always?), or a situational-nature (e.g., Do you think something just happened to make this person sad?) were not required. This finding is of particular interest given that previous research has suggested that the attributional focus of children, approximately six years and younger, is almost exclusively on circumstances in the immediate situation and therefore they may not be capable of making dispositional attributions (Ruble et al., 1979).

However, additional research is needed to determine the stability of children's attributions. Although the youngest children in this study gave responses, the content of which indicated a dispositional attribution, it cannot be stated with certainty that these children would be able to predict that the same person should act in an essentially consistent manner across a variety of situations. It is important that future methodologies include specific measures for determining the stability of attributions.

A possible explanation for the finding that children were able to make both kinds of attribution may be that the children who were interviewed were not young enough, that is, children at the grade one level, between approximately 6 and 7 years of age, are capable of making dispositional attributions, whereas preschoolers who were not interviewed may indeed lack this ability. However, differences in research findings may be partially accounted for by differences in methodology.

Unlike other studies which asked children to describe themselves or a friend (e.g., Livesley & Bromley, 1973), or which required children to explain events which they had viewed on a film (e.g., Flapan, 1968), this study explicitly asked children why a behaviour had occurred. Additional information about the person or his/her situation was not provided except for a photograph of the person who was said to be engaging in the behaviour. When this additional information is given the task may become too complex for the information-processing capacity of young children, and consequently they revert to more obvious or concrete explanations of a situational nature. By providing children with a very simple context in which the behaviour had occurred, and by explicitly requiring a causal analysis of the behaviour, this study

appears to have enhanced children's expression of dispositional attributions. At the same time these restrictions on information failed to increase our knowledge about the abilities of children to understand social causality within more real-life contexts. This concern was discussed previously and once again indicates the need for additional research to determine the effectiveness of various methodologies in creating optimal conditions under which children will be able to demonstrate the full extent of their attributional repertoire.

While the data indicated that children at each of the four grade levels were capable of making both dispositional and situational attributions, support for hypothesis 2, which had predicted that as children grew older their attributions would become increasingly more dispositional, regardless of the age of the target person, was not found. The percentage of children making dispositional attributions showed some tendency to increase with grade level but there was no statistically significant difference across grades. Children made dispositional and situational attributions with relatively the same frequency. Given that adults appear to cite more dispositional than situational causes in regard to the behaviour of others (e.g., McArthur, 1972, 1976), it is surprising that by early adolescence, children in grade 7 and particularly children in grade 10, did not reveal any tendency in this direction. Failure to find evidence of a developmental shift from situational to dispositional attributions may be partially related to the finding that children at the grade 1 level were already capable of making dispositional attributions and therefore this capacity did not emerge at a later time as was expected, or it may be due to the fact that the attributions of adults are distinctly more biased than those

of young adolescents. Consequently any shift which occurs toward dispositional attributions will be detected only by late adolescence. Studies which include adolescents at senior grade levels are needed to investigate this possibility.

In summary, a social-attribution model has proved to be a useful framework within which to explore the cognitive processes underlying children's perceptions. It revealed that children at all four grade levels were capable of making both dispositional and situational attributions which indicated that they had a greater understanding of social causality than has been previously thought. At the same time it showed that children's explanations for the behaviour of young people were different than their explanations for the behaviour of old people, that is, children, and more precisely young adolescents, attributed the behaviour of old targets to disposition whereas the same behaviour for young targets was more frequently attributed to situational factors. Age, and to some extent the sex of the target, acted as salient dimensions along which attributional judgments were made. Although the within-subjects design may have heightened children's awareness that somehow age differences were anticipated, it is very unlikely that they possessed the cognitive sophistication needed to understand the specific ways in which a causal analysis of someone's behaviour could reveal biasing. Thus the subtleties involved in the attribution process made it an especially powerful approach to understanding person-perception phenomena in respect to stereotyping. However, a replication of the present study, with each child being asked to explain the behaviour of only one age group, would seem to be in order.

Attention must be also refocused on the specific behaviours which elicit a dispositional bias. By knowing what behaviours are apt to be interpreted on the basis of stereotypic expectancies, we can be aware not only of our own biases and those of others, but most importantly we can be alert to how our responses to these behaviours are influenced. Thus, an old person's sadness need not be automatically "explained away" as being dispositional, but rather it should be understood in view of precipitating events in the environment. This second interpretation allows and implicitly demands strategies for modifying those events which have triggered and sustained the behaviour. It should be readily apparent that these differences in attributions have potentially serious implications for the well-being of those who are old.

While the perceptions of adolescents appear to reflect those of adults in that they reveal a dispositional bias, it is encouraging that young children, those in grades 1 and 4, did not give evidence of this bias. It is probably during these early school years that intervention strategies would be most effective in reducing or preventing the formation of destructive stereotypic expectancies for the behaviour of the elderly--destructive in the sense that behaviour, especially undesirable behaviour, would not be perceived as being unamenable to change, and destructive in the more general sense that stereotypes are a disservice to the individual because he/she is no longer judged as an individual but rather as a member of a homogeneous group. Furthermore, instructions as to how we go about explaining our own behaviour as well as the behaviour of others should sensitize children as to how the attribution process itself reinforces stereotypic expectancies.

APPENDIX

APPENDIX A
INSTRUCTIONS AND RATING SCALE GIVEN
TO JUDGES FOR RATING THE PHOTOGRAPHS

RATING FORM FOR PICTURES

Indicate your sex (please circle): male/female

Your age: _____

Instructions:

Using the following scale, rate each picture for its "emotionality". A person whose emotional state appears to be neutral would receive a rating of "4". Ratings less than "4" indicate an increasingly negative emotional state; ratings more than "4" indicate an increasingly positive emotional state. Circle the appropriate number for each rating.

	1	2	3	4	5	6	7
	NEGATIVE			NEUTRAL	POSITIVE		
___ 1.	1	2	3	4	5	6	7
___ 2.	1	2	3	4	5	6	7
___ 3.	1	2	3	4	5	6	7
___ 4.	1	2	3	4	5	6	7
___ 5.	1	2	3	4	5	6	7
___ 6.	1	2	3	4	5	6	7
___ 7.	1	2	3	4	5	6	7
___ 8.	1	2	3	4	5	6	7
___ 9.	1	2	3	4	5	6	7
___ 10.	1	2	3	4	5	6	7
___ 11.	1	2	3	4	5	6	7
___ 12.	1	2	3	4	5	6	7
___ 13.	1	2	3	4	5	6	7
___ 14.	1	2	3	4	5	6	7
___ 15.	1	2	3	4	5	6	7
___ 16.	1	2	3	4	5	6	7
___ 17.	1	2	3	4	5	6	7
___ 18.	1	2	3	4	5	6	7

APPENDIX A (continued)

	1	2	3	4	5	6	7
	NEGATIVE			NEUTRAL		POSITIVE	
___19.	1	2	3	4	5	6	7
___20.	1	2	3	4	5	6	7
___21.	1	2	3	4	5	6	7
___22.	1	2	3	4	5	6	7
___23.	1	2	3	4	5	6	7
___24.	1	2	3	4	5	6	7
___25.	1	2	3	4	5	6	7
___26.	1	2	3	4	5	6	7
___27.	1	2	3	4	5	6	7
___28.	1	2	3	4	5	6	7
___29.	1	2	3	4	5	6	7
___30.	1	2	3	4	5	6	7
___31.	1	2	3	4	5	6	7
___32.	1	2	3	4	5	6	7
___33.	1	2	3	4	5	6	7
___34.	1	2	3	4	5	6	7
___35.	1	2	3	4	5	6	7
___36.	1	2	3	4	5	6	7
___37.	1	2	3	4	5	6	7
___38.	1	2	3	4	5	6	7
___39.	1	2	3	4	5	6	7
___40.	1	2	3	4	5	6	7
___41.	1	2	3	4	5	6	7

APPENDIX A (continued)

	1	2	3	4	5	6	7
	NEGATIVE			NEUTRAL		POSITIVE	
42.	1	2	3	4	5	6	7
43.	1	2	3	4	5	6	7
44.	1	2	3	4	5	6	7
45.	1	2	3	4	5	6	7
46.	1	2	3	4	5	6	7
47.	1	2	3	4	5	6	7
48.	1	2	3	4	5	6	7
49.	1	2	3	4	5	6	7
50.	1	2	3	4	5	6	7
51.	1	2	3	4	5	6	7
52.	1	2	3	4	5	6	7
53.	1	2	3	4	5	6	7
54.	1	2	3	4	5	6	7
55.	1	2	3	4	5	6	7
56.	1	2	3	4	5	6	7
57.	1	2	3	4	5	6	7

Note. After the "emotionality" ratings were obtained, the judges were given verbally the following instructions:

You are now going to view each of the photographs again. This time I would like you to estimate the age of the person in the photograph. Write your age estimate in the blank space provided beside the number of each photograph on your sheet.

APPENDIX B

RATINGS OF "EMOTIONALITY" AND AGE FOR THE SIXTEEN PHOTOGRAPHS

Photographs of Young Males

	<u>"Emotionality" Rating</u>	<u>Age Rating</u>
Photograph (1)	4.05	26.5 years
Photograph (2)	4.05	30.0 years
Photograph (3)	4.05	33.7 years
Photograph (4)	4.07	26.4 years

Photographs of Old Males

	<u>"Emotionality" Rating</u>	<u>Age Rating</u>
Photograph (1)	3.54	72.2 years
Photograph (2)	3.59	68.1 years
Photograph (3)	4.50	74.4 years
Photograph (4)	4.50	76.1 years

Photographs of Young Females

	<u>"Emotionality" Rating</u>	<u>Age Rating</u>
Photograph (1)	3.82	25.1 years
Photograph (2)	4.08	25.3 years
Photograph (3)	4.26	26.4 years
Photograph (4)	4.41	27.3 years

Photographs of Old Females

	<u>"Emotionality" Rating</u>	<u>Age Rating</u>
Photograph (1)	3.72	70.1 years
Photograph (2)	4.21	68.8 years
Photograph (3)	4.26	74.2 years
Photograph (4)	4.28	73.4 years

APPENDIX C
SCORING CRITERIA FOR DISPOSITIONAL AND SITUATIONAL ATTRIBUTIONS

1. Dispositional Attributions: Causal explanations for a behaviour which cite personality characteristics, traits, attitudes, feelings, or habits of a long-standing nature, and which are perceived as being essentially permanent and resistant to change will be scored as dispositional.

Example

Behavioural Description: This person is sad.

Causal Explanation: "She looks like a person who would feel sad no matter what happened."

Response Category: Dispositional.

2. Situational Attributions: Causal explanations which cite transitory events or circumstances in the environment as precipitating, shaping, or maintaining a behaviour will be scored as situational.

Example

Behavioural Description: This person is sad.

Causal Explanation: "He is sad because his friend died."

Response Category: Situational.

APPENDIX D
INTERVIEW FORMAT FOR CHILDREN MAKING A
SPONTANEOUS DISPOSITIONAL ATTRIBUTION
AND A SPONTANEOUS SITUATIONAL ATTRIBUTION

INTERVIEW FORMAT FOR CHILDREN MAKING A
SPONTANEOUS DISPOSITIONAL ATTRIBUTION

Behavioural Description: This person is sad.

(A) Open-Ended Question: Why do you think this person is sad?

If the child spontaneously makes a dispositional attribution in response to (A) give (B).

(B) Situational Probe: Do you think something just happened to make this person sad? (yes/no).

If the response to (B) is "yes", give (C).

(C) Open-Ended Question: Situational Probe: What do you think just happened to make this person sad?

If the response to (B) is "no", give (D).

(D) Dispositional Probe: Do you think this is the kind of person who is sad almost always? (yes/no).

(E) Final Decision: Do you think something just happened to make this person sad or do you think this person is almost always sad?

INTERVIEW FORMAT FOR CHILDREN MAKING A
SPONTANEOUS SITUATIONAL ATTRIBUTION

Behavioural Description: This person is sad.

- (A) Open-Ended Question: Why do you think this person is sad?
If the child spontaneously makes a situational attribution in response to (A) give (B).
- (B) Dispositional Probe: Do you think this person is the kind of person who is sad almost always? (Yes/no).
If the response to B is "yes", give (C).
- (C) Open-Ended Question: Dispositional Probe: Why would a person like this person be sad almost always?
If the response to B is "no", give (D).
- (D) Situational Probe: Do you think something just happened to make this person sad? (yes/no).
- (E) Final Decision: Do you think something just happened to make this person sad or do you think this person is almost always sad?

APPENDIX E
ORDERS OF INTERVIEW ITEMS

ORDER A

<u>Target Age</u>	<u>Behavioural Description</u>
old	sad
young	kind
young	complaining
old	happy
old	kind
young	happy
old	complaining
young	sad

ORDER B

<u>Target Age</u>	<u>Behavioural Description</u>
young	kind
old	sad
young	complaining
old	kind
young	sad
young	happy
old	complaining
old	happy

APPENDIX F

ANALYSIS OF VARIANCE FOR ORDER (OR), TARGET SEX (TSEX),
SEX OF CHILD (SEX), GRADE (GR), TARGET AGE (TAGE),
BEHAVIOUR (BEH), AND CHILDREN'S ATTRIBUTIONS

ANALYSIS OF VARIANCE FOR ORDER (OR), TARGET SEX (TSEX),
SEX OF CHILD (SEX), GRADE (GR), TARGET AGE (TAGE),
BEHAVIOUR (BEH), AND CHILDREN'S ATTRIBUTIONS

Source of Variation	SS	df	MS	F
<u>Between Subjects</u>	<u>26.7188</u>	<u>63</u>		
A (OR)	0.5000	1	0.5000	1.62
B (TSEX)	0.5000	1	0.5000	1.62
C (SEX)	0.0078	1	0.0078	0.03
D (GR)	0.9219	3	0.3073	1.00
AB	0.7813	1	0.7813	2.53
AC	0.6328	1	0.6328	2.05
AD	3.2031	3	1.0677	3.46*
BC	0.6328	1	0.6328	2.05
BD	3.6719	3	1.2240	3.97*
CD	0.6641	3	0.2214	0.72
ABC	0.0078	1	0.0078	0.03
ABD	1.5156	3	0.5052	1.64
ACD	3.1016	3	1.0339	3.35*
BCD	0.2578	3	0.0859	0.28
ABCD	0.4453	3	0.1484	0.48
Subj, w. groups	9.8750	32	0.3086	
<u>Within Subjects</u>	<u>101.2812</u>	<u>448</u>		
E (TAGE)	1.3203	1	1.3203	13.52**
AE	0.3826	1	0.3828	3.92
BE	0.0078	1	0.0078	0.08
CE	0.1250	1	0.1250	1.28
DE	0.3516	3	0.1172	1.20
ABE	0.1953	1	0.1953	2.00
ACE	0.3125	1	0.3125	0.32
BCE	0.0313	1	0.0313	0.32
ADE	0.3516	3	0.1172	1.20
BDE	0.3203	3	0.1068	1.09
CDE	1.3281	3	0.4427	4.53**
ABCE	0.1250	1	0.1250	1.28
ABDE	0.6953	3	0.2318	2.37
ACDE	1.0469	3	0.3497	3.57*
BCDE	0.2031	3	0.0677	0.69
ABCDE	0.3594	3	0.1198	1.23
E x subj. w. groups	3.1250	32	0.0977	

APPENDIX F (continued)

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Source of Variation	SS	df	MS	F
Within Subjects	101.2812	448		
F (BEH)	26.6093	3	8.8698	46.98*
AF	0.1094	3	0.0365	0.19
BF	0.7031	3	0.2344	1.24
CF	0.0390	3	0.0130	0.07
DF	1.4375	9	0.1597	0.85
ABE	0.5781	3	0.1927	1.02
ACF	1.3828	3	0.4576	2.44
BCF	0.7266	3	0.2422	1.28
ADF	2.5625	9	0.2847	1.51
BDF	2.3750	9	0.2639	1.40
CDF	1.1640	9	0.1293	0.69
ABCF	0.5078	3	0.1693	0.90
ABDF	2.5000	9	0.2778	1.47
ACDF	1.8828	9	0.2092	1.11
BCDF	2.2578	0	0.2509	1.33
ABCDF	2.0390	9	0.2266	1.20
F x subj. w. groups	18.1250	96	0.1888	
EF	2.3203	3	0.7734	5.77**
AEF	0.7891	3	0.2630	1.96
BEF	0.0703	3	0.0234	0.17
CEF	0.2344	3	0.7813	0.58
DEF	1.2818	9	0.1536	1.15
ABEF	0.2266	3	0.0755	0.56
ACEF	0.4844	3	0.1615	1.20
BCEF	0.6406	3	0.2135	1.59
ADEF	1.2266	9	0.1363	1.02
BDEF	0.9766	9	0.1085	0.81
CDEF	1.0625	9	0.1181	0.88
ABCEF	0.0156	3	0.0052	0.04
ABDEF	0.6328	9	0.0703	0.52
ACDEF	0.5625	9	0.0625	0.47
BCDEF	0.8750	9	0.0972	0.72
ABCDEF	1.6250	9	0.1806	1.35
DE x subj. w. groups	12.8750	96	0.1341	
Total	128.0000	511		

* $p < .05$ ** $p < .01$

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