

Dreams. Adler's belief that dreams help us solve current problems was investigated by exposing research participants to situations in which the failure to solve a puzzle was considered a threat to the personality. The research participants were then allowed to sleep. Some were permitted to dream; they were awakened only during non-rapid-eye-movement (NREM) sleep. Others were awakened during rapid-eye-movement (REM) sleep so that they could not dream. Research participants who dreamed recalled significantly more of the uncompleted puzzle than those who did not dream. The researchers concluded that dreaming enabled research participants to deal effectively with the current threatening situation—that is, the failure to solve the puzzle (Grieser, Greenberg, & Harrison, 1972).

In another study, the dreams of two groups of research participants were reported (Breger, Hunter, & Lane, 1971). One group consisted of college students who were anticipating a stressful psychotherapy session. The other group consisted of patients about to undergo major surgery. For both groups, the recalled dreams focused on their conscious worries, fears, and hopes. Both types of research participants dreamed about the current problems they were facing.

Inferiority feelings. Research on Adler's concept of inferiority feelings has found that adults who scored low on inferiority feelings tended to be more successful and self-confident and more persistent in trying to achieve their goals than adults who scored high on inferiority feelings. A study of American college students showed that those with moderate inferiority feelings had higher grade-point averages than those with low or high inferiority feelings (Strano & Petrocelli, 2005).

Research on teenagers and young adults in China showed that they felt inferior about different aspects of their life at different ages. Younger teens experienced inferiority feelings about poor grades; older teens had inferiority feelings about physical attractiveness. College students reported inferiority feelings about their lack of social skills (Kosaka, 2008).

Early recollections. Classic research showed that early memories of people diagnosed as anxiety neurotics were concerned with fear; early memories of depressed persons centered on abandonment; and early memories of those with psychosomatic complaints involved illness (Jackson & Sechrest, 1962). Early memories of alcoholics contained threatening events, as well as situations in which they were controlled by external circumstances rather than by their own decisions. The early memories of a control group of non-alcoholics showed neither of these themes (Hafner, Fakouri, & Labrentz, 1982).

Early recollections of adult criminals dealt with disturbing or aggressive interactions with other people. They contained more unpleasant events than the early recollections of a control group (Hankoff, 1987). The early memories of adolescent delinquents involved breaking rules, having difficulty forming social relationships, and being unable to cope with life on their own. They also perceived their parents as untrustworthy and as more likely to hurt than to help. These themes were not present in the early memories of a control group (Davidow & Bruhn, 1990).

Recollections of psychiatric patients considered dangerous to themselves and to others showed more aggressive early memories than did recollections of non-dangerous psychiatric patients. The recollections of the dangerous patients revealed that they felt vulnerable and powerless and saw others as hostile and abusive (Tobey & Bruhn, 1992).

Research using objective scoring systems for early recollections has shown that these memories tend to be subjective recreations rather than events that actually occurred, much like Adler's memory of the cemetery (Statton & Wilborn, 1991).

Our earliest memories of childhood help reveal our lifestyle.



One study reported that when research participants were asked to make up early recollections that might have happened to someone else, the themes were similar to those revealed by their own recollections (Buchanan, Kern, & Bell-Dumas, 1991). This study also provided research support for Adler's contention that early recollections reveal one's current style of life and therefore can be used as a therapeutic device. (Table 4-2 summarizes possible themes of early recollections.)

Early recollections studied in adults in the United States and in Israel have been shown to predict career preferences. For example, the early memories of physicists, mathematicians, and psychologists included themes such as curiosity, independent thought, and skepticism about information from authority figures (Clark, 2005; Kasler & Nevo, 2005).

Neglect in childhood. Adler suggested that children who were neglected or rejected by their parents developed feelings of worthlessness. A study of 714 adults hospitalized for depression found that the patients rated their parents as having been hostile, detached, and rejecting (Crook, Raskin, & Eliot, 1981). Interviews with siblings, relatives, and friends of the patients confirmed that the parents had indeed behaved in hostile and neglectful ways.

In another study, parents of 8-year-old children completed a questionnaire to assess their child-rearing behaviors and their level of satisfaction with their children (Lefkowitz & Tesiny, 1984). Ten years later the children, then age 18, were given the depression scale of the

Table 4-2 Early recollections and style of life themes

RECOLLECTION	POSSIBLE THEME
First school memory	Attitudes toward achievement, mastery, and independence
First punishment memory	Attitude toward authority figures
First sibling memory	Evidence of sibling rivalry
First family memory	Functioning in social situations
Clearer memory of mother	Attitudes toward women
Clearer memory of father	Attitudes toward men
Memory of person you admire	Basis for role models
Happiest memory	Basis for how your strongest needs are best gratified

Source: Adapted from A. R. Bruhn (1992). The early memories procedure. *Journal of Personality Assessment*, 58(1), 1-15.

Minnesota Multiphasic Personality Inventory (MMPI). Research participants whose test scores showed they were more depressed had been neglected in childhood by their parents. Those whose parents had not been indifferent or unloving scored lower on the depression scale.

More recent research supports earlier findings that neglected children report more shame and depression than children who were not neglected (Bennett, Sullivan, & Lewis, 2010). Also, children and adolescents in China (ages 5-17) who experienced neglect were far more likely to develop high anxiety than those who were not neglected (Guan, Deng, & Luo, 2010).

Pampering in childhood. Adler noted that pampering in childhood could lead to a pampered style of life in which the person would demonstrate little or no social feelings for others. Research supports this idea and also suggests that pampering can lead to excessive narcissism, which involves a lack of responsibility or empathy for other people, an exaggerated sense of self-importance, and a tendency to exploit others. Studies have identified four types of pampering.

- Overindulgence, which involves the persistent parental gratification of a child's needs and desires, leading to feelings of entitlement as well as tyrannical and manipulative behavior
- Overpermissiveness, which involves allowing children to behave as they please with no consideration for the effects of their behavior on other people, leading to a disregard of social rules and the rights of others
- Overdomination, which involves exclusive parental decision-making, leading to a child's lack of self-confidence and a tendency to become dependent on others in adulthood
- Overprotection, which involves parental caution, excessively warning children of potential dangers in their environment, leading to generalized anxiety and a tendency to avoid or hide from social situations

Studies with college students found that children of over-dominating mothers were more likely to seek psychotherapy while in college. Students who rated their parents as both overindulgent and overprotective tended to be low in self-esteem. Students whose parents were considered to be overindulgent and over-dominating scored high in narcissism (Capron, 2004).

Social interest. Research using the SIS showed that persons high in social interest reported less stress, depression, anxiety, and hostility than persons low in social interest. High social interest scorers scored higher on tests assessing cooperation with others, empathy, responsibility, and popularity (Crandall, 1984; Watkins, 1994; Watkins & St. John, 1994). Research with college students found that those high in social interest scored high in spirituality and religiosity. However, their spirituality was of a positive, tolerant, and helping nature, not necessarily religious ethnocentrism or fundamentalism (Leak, 2006a). Other studies in the United States and China showed that those high in social interest were high in subjective well-being, hope and optimism, agreeableness, self-identity, self-determination, and a strong sense of purpose in life (Barlow, Tobin, & Schmidt, 2009; Foley, Matheny, & Curlete, 2008; Leak & Leak, 2006).

A study of high-school adolescents in grades 9 to 12 found that those high in social interest scored significantly higher in overall life satisfaction, as well as satisfaction with friends and family, than did those who scored low in social interest (Gilman, 2001). Other research, conducted with male criminal offenders ranging in age from 18 to 40, showed that those who scored high in social interest were far less likely to commit additional crimes following their release from jail than were those who scored low in social interest (Daugherty, Murphy, & Paugh, 2001). Juvenile delinquents scored lower on social interest than did those who were not identified as delinquents (Newbauer & Stone, 2010).

Studies with the SII showed that women who scored high in social interest were significantly higher in self-actualization, a characteristic of the healthy personality described by Maslow (see Chapter 9). Other research found that social interest was higher in women than in men and that it increased with age for both sexes (Greever, Tseng, & Friedland, 1973).

A study of Latino men and women living in the United States found that those who were bicultural (well-adjusted to both cultures) scored higher on social interest measures than those primarily acculturated to either the Latino lifestyle or the U.S. lifestyle alone (Miranda, Frevert, & Kern, 1998).

High social interest may also be good for your health. Social interest, with its related feelings of belonging, cooperation, and a sense of contributing to or receiving support from a social network has been positively associated with physical and mental well-being. For example, people who scored high in social interest tended to have stronger immune systems, fewer colds, lower blood pressure, and greater subjective well-being (Nikelly, 2005).

HIGHLIGHTS: Research on Adler's Ideas

Children who are neglected tend to develop

- ◆ Feelings of worthlessness and shame
- ◆ Depression
- ◆ Anxiety

Children who are pampered tend to

- ◆ Have low self-esteem
- ◆ Become narcissistic
- ◆ Lack empathy for others

People who score high in social interest tend to

- ◆ Score low on depression, anxiety, and hostility
- ◆ Develop feelings of empathy for others
- ◆ Become happy and agreeable

Birth order. Much research has been conducted on the effects of one's order of birth within the family. Obviously, being the first-born, second-born, last-born, or an only child influences personality in a variety of ways. Simply having older or younger siblings, regardless of one's own order of birth, can affect personality. For example, studies of nearly 20,000 people in England, Scotland, and Wales, and some 3,500 people in the United States, found that the number of older brothers a man had could predict his sexual orientation. Boys with older brothers were more sexually attracted to men than boys who did not have older brothers. The more older brothers a man had, the greater the attraction to the same sex. Having older sisters did not appear to predict sexual orientation in women (Bogaert, 2003).

Birth order affects our choice of friends. Studies show that first-borns are more likely to associate with other first-borns, second-borns with other second-borns, and so on. Only children tend to associate with other only children. These preferences held for friendships as well as romantic relationships (Hartshorne, 2010; Hartshorne, Salem-Hartshorne, & Hartshorne, 2009).

A study in Finland found that the behavior and characteristics of first-borns can influence whether the parents decide to have other children, within five years of the birth of the first. Parents whose first child showed high intelligence, few behavior problems, and the ability to adapt to new situations were more likely to have additional children (Jokela, 2010).

According to Adler, first-borns are concerned with power and authority. One way for them to gain power and authority as adults is through achievement in their work. If Adler was correct, then first-borns should score high on measures of achievement, an idea that has considerable research support. In many areas, from college attendance to high-level management, first-borns are overrepresented relative to their proportion of the population. More first-borns than later-borns become eminent, and they tend to attain greater intellectual achievement in academic settings and greater power and prestige in their careers (Breland, 1974; Schachter, 1963).

Studies in the United States and in Poland found that first-borns scored higher on measures of intelligence, completed more years of formal education, and worked in more prestigious occupations than later-borns (Herrera, Zajonc, Wiczorkowska, & Cichomski, 2003). Research on adults in Sweden showed that first-borns scored higher than later-borns on tests of managerial or executive functioning. However, the first-borns in this study did not score higher on intelligence tests (Holmgren, Molander, & Nilsson, 2006). A study of more than 240,000 male army recruits in Norway showed that older siblings scored higher on IQ tests than younger siblings (Kristensen & Bjerkedal, 2007).

In general, then, evidence suggests that first-borns may be more intelligent than later-borns, but not all researchers agree (see, for example, Rodgers, 2001). The IQ scores of 400,000 European men were analyzed with respect to birth order (Belmont & Marolla, 1973). The results showed that first-borns had higher IQ scores than second-borns, second-borns had higher scores than third-borns, and so on. These findings were confirmed for men and women in several nations (Zajonc, Markus, & Markus, 1979). A possible explanation relates not to genetic differences but to the first-born's exclusive exposure to adults. Consequently, first-borns may have a more stimulating intellectual environment than later-borns.

Although first-borns may be more intelligent than later-borns, they do not always earn higher grades in school. Studies of U.S. high school students confirm that first-borns have higher IQ scores but later-borns tend to work harder and achieve higher grade-point averages (Frank, Turenshine, & Sullivan, 2010; Rettner, 2010).

First-borns tend to be more suggestible and dependent on other people. They are anxious in stressful situations and have a higher need for social relationships (Schachter, 1963, 1964). These findings can be predicted from Adler's theory. He noted that first-borns experience anxiety when dethroned by a sibling and attempt to regain their position by conforming to parental expectations. Thus, first-borns rely more on the standards of others to guide their behavior and form the basis of their self-concept (Newman, Higgins, & Vookles, 1992).

Other research found that first-borns scored lower than later-borns on tests of depression and anxiety and higher on self-esteem (Gates, Lineberger, Crockett, & Hubbard, 1988). First-borns may also be more extraverted and conscientious (Sulloway, 1995). However, later research in the Netherlands found the opposite: later-borns were more extraverted in that they were more dominant and assertive (Pollet, Dijkstra, Barelds, & Buunk, 2010).

First-born girls were found to be more obedient and socially responsible than later-borns and to feel closer to their parents (Sutton-Smith & Rosenberg, 1970). Studies in France, Croatia, Canada, and England showed that first-borns were more closely supervised in childhood, rated by their mothers as less fearful, reported more frightening childhood dreams, and scored higher on measures of dominance in college (Beck, Burnet, & Vosper, 2006; Begue & Roche, 2005; Kerestes, 2006; McCann, Stewin, & Short, 1990).

Less research has been conducted on second-born children. A study of first-born and second-born siblings, conducted over three years, found that the attitudes, personalities, and leisure activities of second-born children were influenced more by their older siblings than by their parents (McHale, Updegraff, Helms-Erikson, & Crouter, 2001). Research on major league baseball players found that those who were younger brothers were 10 times more likely than older brothers to attempt the high-risk action of stealing bases during a game. They also had higher batting averages than those who were older brothers (Sulloway & Zweigenhaft, 2010).

Adler predicted that last-born children, if excessively pampered, would have adjustment problems as adults. One popular explanation for alcoholism is that some people cannot cope with the demands of everyday life. According to Adler's theory, then, more last-borns than early-borns would become alcoholics. This prediction has been supported by considerable research dealing with alcoholism and birth order. Binge drinking in college has been found to be significantly higher among last-borns than first-borns (Laird & Shelton, 2006).

To Adler, only-born adults are overly concerned with being the center of attention, as they were in childhood. He also considered only-borns to be more selfish. Research has not consistently supported this notion. One study found that only children were more cooperative than first-borns or last-borns (Falbo, 1978). Another study found that they were more self-centered and less popular than were children reared with siblings (Jiao, Ji, & Jing, 1986).

An analysis of 115 studies of only-borns reported higher levels of achievement and intelligence and comparable social and emotional adjustment with people who have siblings (Falbo & Polit, 1986). Later research (Mellor, 1990) confirmed those results and reported that only children had greater initiative, aspiration, industriousness, and self-esteem.

An analysis of several studies shows that the number of siblings in a family is a consistent predictor of educational success; people with fewer siblings do perform better in school (Downey, 2001). Only-borns may also have more educational opportunities and parental resources, enabling them to perform better than children with siblings.

from his popular lectures. A related charge is that Adler's concepts appear to rely heavily on commonsense observations from everyday life. A book reviewer in the *New York Times* noted: "Although [Adler] is one of the most eminent psychologists in the world, when he writes about psychology there is no other who can equal him in simplicity and non-technicality of language" (quoted in Hoffman, 1994, p. 276).

Critics allege that Adler was inconsistent and unsystematic in his thinking and that his theory contains gaps and unanswered questions. Are inferiority feelings the only problem we face in life? Do all people strive primarily for perfection? Can we become reconciled to a degree of inferiority and no longer attempt to compensate for it? These and other questions that have been posed cannot all be answered adequately by Adler's system; most theorists, however, leave us with unanswered questions.

Some psychologists dispute Adler's position on the issue of determinism versus free will. Early in his career, Adler did not oppose the notion of determinism. It was broadly accepted in science at the time, and it characterized Freud's psychoanalytic theory. Later, Adler felt the need to grant more autonomy to the self, and his final formulation rejected determinism. His concept of the creative self proposes that before the age of 5, we fashion a style of life using material provided by our heredity and our environment. However, it is not clear how a child is able to make such momentous decisions. We know that Adler favored free will and opposed the idea that we are victims of innate forces and childhood events. That position is clear, but the specifics of forming the style of life are not.

Adler's followers claim that individual psychology remains popular among psychologists, psychiatrists, social workers, and educators. *Individual Psychology: The Journal of Adlerian Theory, Research and Practice* is published quarterly by the North American Society of Adlerian Psychology. Other Adlerian journals are published in Germany, Italy, and France. Adlerian training institutes have been established in New York, Chicago, and other cities. Adlerian counseling techniques have been developed by Rudolph Dreikurs and others, and their work has influenced new generations of Adlerian clinicians. Dreikurs's work on child-rearing practices applies Adler's views to contemporary problems not only in child development, but also in the treatment of the family as a whole.

Chapter Summary

Adler's childhood was marked by intense efforts to compensate for his feelings of inferiority. His system of individual psychology differs from Freudian psychoanalysis in its focus on the uniqueness of the individual, on consciousness, and on social rather than biological forces. It minimizes the role of sex.

Inferiority feelings are the source of all human striving, which results from our attempts to compensate for these feelings. Inferiority feelings are universal and are determined by the infant's helplessness and dependency on adults. An inferiority complex (that is, an inability to solve life's problems) results from being unable to compensate for inferiority feelings. An inferiority complex can originate in childhood through organic inferiority, spoiling, or neglect. A superiority complex (an exaggerated opinion of one's abilities and accomplishments) results from overcompensation.

Our ultimate goal is superiority or perfection; that is, making the personality whole or complete. Fictional finalism refers to fictional ideas, such as perfection, that guide our behavior. Style of life refers to unique patterns of characteristics and behaviors by which we strive for perfection. The creative power of the self refers to our ability to create our selves from the materials provided by our heredity and environment. Four basic styles of life are the dominant or ruling type, the getting type, the avoiding type, and the socially useful type. Social interest is innate but the extent to which it is realized depends on early social experiences.

Order of birth is a major social influence in childhood from which one's style of life is created. First-borns are oriented toward the past, pessimistic about the future, and concerned with maintaining order and authority. Second-borns compete with first-borns and