The Solitary Side of Life: An Examination of the Time People Spend Alone from Childhood to Old Age

REED W. LARSON

The University of Illinois, Urbana/Champaign and Michael Reese Hospital and Medical Center

From childhood to old age people spend increasing amounts of their waking hours alone. This paper examines this enlarging solitary part of daily life as a distinct "experiential niche" having unique potentials and liabilities. The paper synthesizes a program of research in which people of different ages have provided reports on their experiences at random times during the day, including times when they are alone. Findings show that the immediate experience of daily solitude is usually one of loneliness and passivity. This is particularly true in adolescence; for older samples aloneness becomes both more common and less emotionally negative. At the same time, adolescents who spend at least some portion of their time alone appear to be better adjusted, perhaps because solitude facilitates the adolescent developmental tasks of individuation and identity formation, while in adulthood and old age, spending large amounts of time alone is more likely to be correlated with poor adjustment. © 1990 Academic Press, Inc.

Periods of solitude, whether brief moments or extended seclusions, have a range of functions and meanings in the human life cycle. In many Native American cultures, youth were required to pass a period of time in seclusion to achieve the transition from childhood to adulthood (Downs, 1972; Erikson, 1950). In the Hindu life course, elders withdraw from social intercourse to pursue spiritual ends (Hiebert, 1981). In our society, numerous artists, scholars, and scientists have found solitude essential to their work (Arieti, 1976; Bush, 1969; Middleton, 1935; Storr, 1988); and poets and philosophers extol periodic solitude as an opportunity for self-renewal (Suedfeld, 1974, 1982).

At the same time, however, spending too much time alone is a defining symptom of depression (American Psychiatric Association, 1987), and forced solitary confinement is often experienced as one of the worst possible punishments (Suedfeld, 1974). Solitude is a separation from others, a separation from immediate participation in the social activities of talking, sharing, loving, judging, and being judged. As such, it has the potential to harbor a wide range of extranormative thoughts and feelings, including generative and self-nurturant activities as well as those that may be harmful to the individual or society.

Address correspondence to Reed Larson, Division of Human Development and Family Ecology, The University of Illinois, 1105 W. Nevada, Urbana, IL 61801.

0273-2297/90 $3.00
Copyright © 1990 by Academic Press, Inc.
All rights of reproduction in any form reserved.
In this paper I review a program of research addressing how these different potentials are manifest in daily experiences of solitude within our own culture. In contemporary life the average person spends a substantial portion of his or her waking hours alone (Larson, 1979; Larson, Csikszentmihalyi, & Graef, 1982; Larson, Zuzanek, & Mannell, 1985). Periods of solitude occur in transitions between activities, during unstructured time at home, and by default, when no one else is around or reachable by telephone. This program of research has asked: what do people experience when they are alone, and how are these experiences related to their well being? Are these moments or hours of solitude typically associated with loneliness and social alienation or with repose and processes of personal renewal?

Research suggests changes in the significance of solitary experience across the life course. Therefore this article takes a life span developmental perspective, examining findings in terms of the salient issues of successive life stages. Because this is a new area of study, many of the findings are incomplete and conclusions are of necessity speculative. Hence, the objective here is a modest one, to organize available findings to provide a basis for further research.

The paper has three parts. The first speaks to the conceptualization of solitude. I differentiate solitude from related concepts such as loneliness and privacy, and I describe the method employed by colleagues and myself to research solitary experience during daily life. In the second part I review findings that provide a description of solitary experience across the life span. These findings address the questions: when are people alone and how do they feel when they are alone? In the third and final part I examine how daily experiences of solitude are related with a person's overall adjustment. It is suggested that solitude is a unique "experiential niche" that has different meanings at each life stage as a function of developmental issues, life-situational demands, and the changing nature of the individual's relationship with other people.

PART I: DEFINITION AND MEASUREMENT

Defining Solitude

The conceptual definition of solitude is suggested by Erving Goffman's sensitive observations on the social norms regulating interactions with others (Goffman, 1959, 1963, 1971). When a person enters the presence of people, Goffman says, he or she is subject to a set of very strong obligations that shape and constrain actions. These range from implicit expectations of politeness and altruistic behavior, to social norms governing "limb discipline" and facial composure. In the presence of others a person is subject to social and self-imposed pressures to present a favorable
and plausible enactment of a social being. "The individual," as Goffman puts it, "does not go about merely going about his business. He goes about constrained to sustain a viable image of himself in the eyes of others" (1971, p. 185). Conversely then, time alone might be identified as time "off stage," when a person is free from people's scrutiny and demands.

Goffman's account, however, gives short shrift to personal relationships. The "others" people spend most of their daily lives with are rarely strangers; they are friends, family members, and acquaintances: individuals with whom they share mutual dependencies and a long history of enjoying each other's company (Hinde, 1979; Kelley & associates, 1983). Being alone, then, is also separation from the emotional correlates of companionship, most typically taking the form of rewarding, reciprocal exchange (Larson & Bradney, 1988).

Solitude, therefore, needs to be thought of in terms of the absence of all of these aspects of being with others: the absence of immediate social demands, constraints, and scrutiny, as well as the absence of the chance for relating, for social engagement, and mutual enjoyment. This leads me to a definition of solitude that emphasizes, not the physical separation from people, but the cybernetic separation, the severance of immediate exchange of information and affect. Using this criterion a person would not be alone in a solitary house if conversing with someone by phone—because there is an exchange of information. If watching TV or listening to music, however, he or she would be alone because the TV or radio do not observe or respond to the person; they do not directly impose demands, interact, or provide feedback.

This definition of being alone, I believe, corresponds closely with our everyday use of the term. Goffman (1971) points out that the boundaries between being alone and being with others (being "a single" and being "with") are often explicitly defined by greetings and salutations. Whether the "others" are family members, friends, or a stranger on a plane "hellos" and "goodbyes" or equivalent communications, typically demarcate the periods when a person is subject to the constraints and benefits of social companionship and those when the person is not.

**Solitude, Loneliness, Privacy**

Using this conceptualization, solitude is readily differentiated from concepts such as loneliness and privacy. Solitude is the objective condition of being alone—defined by communicative separation from others. Loneliness and privacy, by contrast, are subjective conditions, which may or may not co-occur with being alone. Loneliness is a psychological state, a felt need for the presence of others (Peplau & Perlman, 1982). Privacy is most often defined as the process whereby people regulate the
information about themselves that is available to others (Altman, 1975, 1977; Derlega & Chaikin, 1977; Foddy & Finighan, 1980).

Research on loneliness, privacy, and social facilitation provides valuable hypotheses about the significance of solitude. First, this work demonstrates the importance of other people to an individual's immediate and extended well-being and shows the emotional costs of separation from them. The immediate presence of others, even strangers, has been found to be stimulating (Zajonc, 1965), comforting under conditions of fear (Rofé, 1984; Schachter, 1959), and a source of important information about the self (Schacter, 1959; Schacter & Singer, 1962; Secord & Backman, 1961). Laboratory studies of social facilitation suggest that the presence of others increases physiological arousal, improving performance of simple tasks, although impairing performance of more complex ones (Bond & Titus, 1983). When alone in daily life, therefore, people might be expected to be less aroused, more susceptible to fear, and experience less self-definition than when they are with others.

In addition, this literature shows that individuals with higher levels of social involvement in their lives experience more frequent positive affect (Bradburn, 1969; Clark & Watson, 1988) and that too little social involvement is associated with loneliness (Peplau & Perlman, 1982; Weiss, 1973). These findings suggest the hypothesis that a solitary life style will be related with poorer well-being. Further studies, however, suggest that it is the quality of social interaction more than the quantity that is most predictive of loneliness (Cutrona, 1982; Franzoi & Davis, 1985). Hence, while a person having no social contact is likely to be profoundly lonely, the findings do not preclude a person spending a substantial portion of his or her time alone without social distress. Indeed Peplau and Perlman (1979) suggest the hypothesis that too much social involvement may also produce loneliness—that each person has an optimal balance between social engagement and solitude.

The specific values of solitude are suggested by the sociological literature on privacy. Providing yet limiting the flow of information about oneself to others—partly by controlling one's time spent with people and alone—is seen to be critical to the process of defining the self. Similar to Peplau and Perlman, several theorists hypothesize that each person has a need for an optimal amount of this privacy and, by implication, time alone (Altman, 1975; Bates, 1964; Schwartz, 1968).

For most authors discussing privacy, solitude is pertinent only as a means of controlling the dissemination of potentially damaging information about oneself; they do not help us think about what actually happens when a person is alone. A few authors, however, have suggested that solitude has special potentials of its own. Westin (1967) suggests that the "state of privacy" or solitude may provide an emotionally valuable re-
lease from the pressures of social roles and a special opportunity for self-evaluation and the integration of personal experience. Drawing upon findings from stimulus reduction experiments and accounts from shipwrecked sailors, prisoners, and poets, Suedfeld (1974, 1980, 1982) proposes that time alone can be psychologically instrumental for maintenance of the self, for "healing," and for self-transcendence.

The unresolved question is how often these instrumental functions or special properties pertain to time alone as it is experienced in daily life. Do ordinary people use daily solitude for control of information, emotional release, and self-renewal? Or is it just lonely?

A Procedure for Studying Solitude: The Experience Sampling Method

The task of studying solitary experience is intrinsically difficult, in one sense self-contradictory. In order to obtain information on what takes place when people are alone, their privacy must somehow be broken, thus, to a degree, negating the object of study. The presence of an observer means that a person is no longer alone. Interviews and questionnaires also involve a social transaction in a social context, encouraging a posture of self-presentation that is antithetical to solitude.

The program of research described in this review involves use of a procedure, called the Experience Sampling Method (ESM), which obtains direct information on people's daily lives, with minimal intrusion (Hormuth, 1986; Larson & Csikszentmihalyi, 1983). Participants carry electronic pagers and fill out reports on their experience at random points when signalled by the pagers. In the studies described here, signals were sent at a random time within every 2-hr block of time across the waking hours of the day for 1 week. On the average, participants responded to approximately 80 to 85% of the signals sent to them, providing 35 to 45 reports per person. Thus the procedure obtains reports on a close to representative sample of occasions during a day, including times when participants are with people and times when they are alone.

Participants in these studies reported both on their objective situations (where they were, what they were doing, whom they were with) and their subjective states (their moods, motivational and cognitive states) at the time of each random signal. An accumulation of research findings indicates that these measures are both reliable and valid (Csikszentmihalyi & Larson, 1987; Larson, 1989).

Occasions of solitude were identified by participants' responses to an item, asking "Who were you with?" The fixed-choice response categories typically included "with friends," "with spouse," "with workers," "with strangers," etc., and "alone"—with this last category used to identify occasions of solitude. Larson and Richards (1990) used two alone categories, "alone, other people nearby" and "alone, no one
around" (see also Constantine, 1981), a format that may have increased estimates of total alone time since the "other people nearby" category was more likely to be checked for marginal situations. It should also be noted that times when participants were talking on the phone have been counted as times with others regardless of what was checked, both for the conceptual reasons discussed above and the empirical finding that such occasions elicit moods more similar to occasions with others (Larson, 1979). A small fraction of times when participants marked being with strangers have also been included as time alone for similar reasons.

This paper reviews findings from studies using the ESM procedure with normal and disturbed samples, including participants as young as age 9 and as old as age 85, in the United States as well as Canada, the Netherlands, and Italy. Four studies representing four life stages are given the most prominence. The late childhood and early adolescent data come from a study of 401 fifth to ninth graders randomly selected from four middle class and working class neighborhoods (Larson & Richards, 1989, 1990). The adolescent data come from a study of 75 randomly selected students from a high school, stratified to obtain equal representation of teenagers from blue-collar and white-collar families (Csikszentmihalyi & Larson, 1984). The adult data come from a study of 107 volunteers, ages 19 to 65, from five blue- and white-collar businesses. The sample includes 67 women and 40 men employed as assembly line workers (44%), clerical workers (29%), and supervisors and engineers (23%); 55% have at least some college education (Larson et al., 1982). The older adult data come from an ESM study of 92 retired adults, ages 55 to 85. In this sample 42% had some college education and two-thirds had held white-collar jobs (Larson et al., 1985).

Although I have presented data from these studies side by side, it should be kept in mind that they are drawn from different populations. While the two younger samples were selected to provide a representation of lower-middle and upper-middle socioeconomic strata, the adult sample is over-representative of lower-middle class strata and the older adult sample is over-representative of upper-middle class strata.

PART II: A DESCRIPTION OF DAILY SOLITARY EXPERIENCES

This sampling of daily life allows us to examine the ecology of time alone at different points in the life course. In Part II, I first review what ESM research has revealed about the objective parameters of daily solitude: when, where and how often are people alone? Second I examine what people report experiencing when they are alone: what are their emotional and cognitive states?

The Context of Daily Solitude

Consistent patterns have been found across ESM studies in where and
when people report being alone. First, the great majority of daily solitude reported by people of all ages occurs at home (Larson & Csikszentmihalyi, 1978, 1980; Larson et al., 1982; Larson et al., 1985; Larson & Richards, 1990). Away from home people spend most of their time with friends, family members, or colleagues at work or school. Second, the range of activities reported alone is diverse, including productive activities (work at a job, schoolwork), maintenance tasks (cooking, cleaning, personal care), and leisure activities (watching TV, reading, listening to music, daydreaming) (Larson & Csikszentmihalyi, 1978, 1980; Larson et al., 1982; Larson, Mannell, & Zuzanek, 1986; Larson & Richards, 1990). In other words, the time people spend alone each day cannot be easily categorized as work-related, as passive entertainment, or as the poet's meditative solitude. It includes all of these. Lastly, solitude occurs during all hours of the day, with greatest concentration during times when other things are less likely to be scheduled. For example, among high-school-aged adolescents solitude was reported most frequently after school and after supper on weekdays and in the morning on weekends (Larson, 1979). Among the elderly it was most common in the morning across all days of the week (Larson et al., 1985). To summarize, solitude tends to occur at home, but aside from this it is not easily characterized in terms of a specific activity or time.

The Percentage of Time People Spend Alone Across the Life Span

The four ESM studies representing different periods of the life course suggest an age gradient in the portion of daily life people spend alone. Children ages 9 and 12 reported being alone about 17% of the time (Larson & Richards, 1990); high-school-aged adolescents reported being alone 26% of the time (Larson & Csikszentmihalyi, 1980); adults reported being alone 29% of the time (Larson et al., 1982); and older, retired adults reported being alone for 48% of the time (Larson et al., 1985). Research with other methodologies confirms that the average amount of time spent alone by children and adolescents is relatively small, roughly a quarter or less of waking hours (Ellis, Rogoff, & Cromer, 1981; Montemayor, 1982) and the amount of time spent alone by the elderly is comparatively large, filling one-half or more of their time (Cowgill & Baulch, 1962; Gordon, Gaitz, & Scott, 1975; Moss & Lawton, 1982). Gender appears to bear little relationship with the amount of time people spend alone in these different periods of the life course (Constantine, 1981; Csikszentmihalyi & Larson, 1984; Larson et al., 1985). While these figures are certainly culture-specific and subject to the limitations of cross-sectional data, they indicate a trend towards increasing time alone with age.

Within different periods of the life course the data also suggest variations in the amount of time spent alone as a function of people's life
styles, living situations, and the demands on their time. Adolescents who have jobs spend less time alone (Larson, 1979); adults who are married, have young children or hold higher status jobs spend less time alone (Larson et al., 1982); and older adults who are widowed, single, or live by themselves spend much more time alone (Larson et al., 1985). If one considers these factors in constructing a picture of the average life course, the overall age trend towards increased solitude is reversed temporarily during the prime child-rearing years when the demands of family life presumably make it harder to be alone (Larson, 1984).

The general increase in solitary time across the life span appears to occur in all spheres of life. Figure 1 combines ESM data from the four studies, although it should be kept in mind that their samples are not strictly comparable and the estimates of solitude for the two youngest groups are based on an item likely to yield a somewhat larger estimate of time alone. The figure shows the proportion of time spent alone by each sample in productive activities (work, school), maintenance activities

![Graph showing percentage of time people are alone by activity type](image)

**Fig. 1.** Percentage of time people are alone by activity type; the figure displays the percent of time alone and the standard error for each percentage. The unit of analysis in this figure and in Figs. 2 and 3 is the individual self-report (not the person).
(housework, errands), and leisure activities. Except for the prime child-rearing years, represented by adults in their 30s in this graph, people in successive life stages reported spending more and more time alone in each of these three categories of activity. The age trend is evident in leisure—the discretionary part of their lives—as well as in productive and maintenance activities, over which they may exercise less control. People appear to become more solitary both in activities they choose and activities they have to do.

Subjective States Experienced When Alone

Strong consistencies have been found across ESM samples in the subjective states people report when they are alone. First, for a significant majority of people in all groups studied, including normal and disturbed, American, Italian, and Dutch samples, feelings of loneliness were reported much more frequently when people were alone than when they were with others (Delle Fave & Larson, 1986; deVries & Delespaul, 1987; Larson et al., 1982; Larson & Johnson, 1985; Larson et al., 1985). As a correlate to the greater loneliness of solitude, people in these different studies also reported lower average self-ratings on related affective dimensions, such as happiness and cheerfulness. This change in state appears to occur concurrently with leaving the presence of people (not before) and it takes place regardless of the activity engaged in (Larson & Csikszentmihalyi, 1980). It also occurs even when people want to be alone (Larson, 1979). It is apparent that daily separations from others, even voluntary separations lasting only a short time, have an impact on people’s affective states.

Comparisons across the different samples suggest that being alone may be most lonely among youth. In the adolescent, working adult, and retired adult samples, participants were asked to rate how they felt each time they were signalled on a 7-point semantic differential scale, with opposite ends marked “lonely” and “sociable.” The raw self-reports have been converted to z scores so that values reflect a person’s self-ratings when alone relative to all of his or her reported experience. Clear age trends are apparent in all three categories of activity (Fig. 2). Whether engaged in a productive activity or leisure, the adolescents experience solitude to be the most lonely, relative to all of their experience, and the retired adults report it to be the least lonely. With age solitude appears to be less likely to bring a feeling of painful separation from others. Consistent with this finding, research with other methodologies shows decreasing aversion to solitude across the adolescent years (Marcoen, Goossens, & Claes, 1987) and greater pleasure in solitary activities reported by older than younger adults (Gordon et al., 1975).

In addition to loneliness, the experience of solitude appears to bring
other changes in a person's state. Participants in a number of ESM studies have reported lower psychological activation when alone (Delle Fave & Larson, 1986; Larson & Csikszentmihalyi, 1978, 1980; Larson et al., 1982; Larson & Johnson, 1985). This finding is consistent with laboratory research on social facilitation finding that the presence of others increases a person's arousal level (Bond & Titus, 1983).

Again, however, there appear to be age trends. Figure 3 shows ratings of feeling active versus passive when alone (on a 7-point semantic differential scale) for the same three samples employed in the preceding graph. As in Fig. 2, values have been z-scored so that they reflect a person's activation relative to what he or she reports across daily life. These data suggest that the lowered activation level of solitude is greatest for adolescents, and occurs for adults and older adults only in leisure activities. In productive and maintenance activities adults and older adults report feeling more active when they are alone.

For the young as well as the old, there are other indications that the immediate experience of solitude has a positive side. Adolescents in the U.S. and Italy reported feeling much less self-conscious when alone, and, when studying, their concentration was better (Csikszentmihalyi & Larson, 1984; Delle Fave & Larson, 1986; Larson & Csikszentmihalyi, 1978). Adults reported greater ease of concentration when alone (Larson et al., 1982) and older adults reported a greater sense of control (Larson et al., 1985). These apparent changes in cognitive state are less strong and less uniform than those found for affective state and arousal, however they are
consistent with the predictions of laboratory studies showing that the presence of others can interfere with performance on complex tasks (Bond & Titus, 1983). Other research also suggests that we might find people to be more creative or engage in more primary process thinking when they are alone (Arieti, 1976; Bush, 1969; Zubek, 1973). By freeing attention from social participation and self-monitoring, solitude provides a situation suited to deep absorption.

The improved cognitive state of solitude, it should be noted, does not preclude the experience of loneliness. In a study with adolescents these two dimensions of solitary experience were found to be uncorrelated (Larson, 1979). In other words, having an experience of deep concentration in solitude did not rule out these adolescents also feeling lonely.

There is one additional feature of the experience of solitude that appears to be common across groups. Time series analyses with two samples indicate that after being alone and returning to the company of others, respondents felt more alert and cheerful than at other times they were with other people (Larson et al., 1982). This pattern provides ecological validation of a laboratory finding that social isolation heightens subsequent enjoyment of others (Oleson & Zubek, 1970; Suedfeld, Grissom, & Vernon, 1964). It also provides evidence that daily solitude serves the function of self-restoration discussed in the literature on privacy (Altman, 1975; Westin, 1967). In the daily flux of activity the chance to be apart from others, perhaps to discharge negative feelings and think more clearly about oneself, appears to be related with short-term emotional renewal.
Summary

Weaknesses of these findings need to be kept in mind. The different age groups that were compared come from different populations. Colleagues have questioned the appropriateness of our use of "sociable" as an opposite pole to "lonely." Clearly, further research is needed to verify these findings.

Nonetheless the data suggest consistent patterns, which are backed up by research employing other methodologies. First, with the likely exception of the child-bearing years, the amount of time spent alone in daily life appears to increase across the life span. Second, when people are alone they report feeling less happy and more lonely than at other times, although this pattern appears to lessen with age. Third, the immediate experience of solitude is associated with diminished self-consciousness, improved concentration, and short-term emotional renewal.

PART III: SOLITUDE AND PSYCHOLOGICAL WELL-BEING

This final section addresses how the immediate experience of solitude is related with the broader equilibrium of people's lives at different periods of the life span. Does the loneliness of solitude breed a persistent, global sense of isolation from others? Or do the opportunities for concentration and renewal that solitude offers contribute to overall psychological well-being?

Answers to these questions are at this point inconclusive. The research reviewed in this section shows difference in psychological adjustment between people who spend more or less of their waking hours alone. Without longitudinal data, however, it is not possible to determine whether these differences are a cause or an effect of solitary experience. My objective then is not to summarize a finished body of work, but to extract clues that will provide direction for future investigations. To this end, I have examined the findings for each life stage within a theoretical context, considering them in terms of the psychological resources and situational demands that characterize each major period of the life course.

As in the prior section, I focus primarily upon ESM studies—because they provide the most direct assessment of solitary experience. Since the ESM obtains a random sampling of people's lives, its data allow us to identify differences between people in the quantity and quality of their daily solitude.

Childhood

The significance of solitude in childhood is a largely unresearched topic. Time budget studies looking at free-time activity in preschool classrooms suggest that certain types of solitary play are correlated with
poorer social adjustment (Factor & Frankie, 1980; Rubin, Daniels-Beirness, & Hayvren, 1982; Rubin & Daniels-Beirness, 1983), however, little is known about preschoolers' patterns of social companionship outside the classroom context. ESM data for a sample of fifth and sixth graders suggests that, at this age period, spending greater amounts of time alone is correlated with less positive average daily affect (Table 1). These sparse findings suggest that solitude is usually not a constructive experience in childhood.

Data from other sources contribute to this interpretation. Coleman (1974) asked children of different ages to complete the sentence stem, "Alone I feel . . ." Throughout childhood the most frequent responses were those of anxiety and fear. While subject to the pains of solitude, children appear to have little conscious sense of the beneficial uses of separation from others. Wolfe and Laufer (1974) found that children could give few meanings for the word "private," and until adolescence "aloneness" was rarely one of them. In an observational study, Rivlin and Wolfe (1972) found that children did not behave differently in private spaces than in public spaces. In my research, older children reported seeking solitude when they were in a bad mood and when they want to avoid someone (such as an unpleasant sibling, or a parent who is angry with them), but quite often seeking out a friend to play with is a more desirable course of action for these situations (Tenbrink, 1990).

In Piagetian theory, children have a limited understanding of the perspectives of other people. Hence they are not yet Goffmanian: they are not yet conscious of a public image of themselves that is any different from what they are (Selman, 1980) and need not be concerned with the intricacies of impression management. Children often presume that others are omniscient, seeing everything one does whether they are in one's presence or not (Inhelder & Piaget, 1958). This collection of research and theory, therefore, leads us to the hypothesis that in childhood time alone may rarely be used in a deliberate instrumental manner.

Further, there is reason to suspect that many children who spend large amounts of time alone do so, not because they value being alone, but because of problems in social relationships, as documented in the time budget studies of preschoolers (e.g., Rubin et al., 1982). It should be noted, however, that the quality of peer relations is only moderately related to amount of interaction with peers (and presumably with the amount of time spent alone) (Gottman, 1977; Gresham & Nagle, 1980). Of course there is also a wide range of other reasons why children might be alone, such as the unavailability of others (cf. Rubin, 1982). Thus, we cannot conclude that solitude in childhood, while lonely and anxiety-producing, is necessarily maladaptive. Rubin (1982) speculates that learning to face loneliness in childhood may establish an important capability that
<table>
<thead>
<tr>
<th>Age group (Ages)</th>
<th>Subsample</th>
<th>N</th>
<th>Measure of adjustment</th>
<th>Relationship</th>
<th>Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Older children</td>
<td>159</td>
<td>Average affect</td>
<td>Negative ($r = -.17$)</td>
<td>Larson &amp; Richards, 1990&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>(5th &amp; 6th grade)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Young adolescents</td>
<td>235</td>
<td>Avg. friendliness</td>
<td>Positive</td>
<td>Larson &amp; Csikszentmihalyi, 1978</td>
<td></td>
</tr>
<tr>
<td>(7th-9th grade)</td>
<td></td>
<td>Avg. alertness</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adolescents (13-18)</td>
<td>25</td>
<td>Avg. loneliness</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adolescents (14-18)</td>
<td>9th, 10th grades</td>
<td>34</td>
<td>Avg. affect</td>
<td>Negative</td>
<td>Larson, 1979; see also Larson &amp; Csikszentmihalyi, 1980</td>
</tr>
<tr>
<td></td>
<td>11th, 12th grades</td>
<td>35</td>
<td>School performance</td>
<td>Quadratic</td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> Larson & Richards, 1990
<table>
<thead>
<tr>
<th>Age Group</th>
<th>Sample Description</th>
<th>Sample Size</th>
<th>Measure of Adjustment</th>
<th>Adjustment</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>College students</td>
<td>10th-12th grades</td>
<td>40</td>
<td>Possessing intrinsic life goals</td>
<td>Positive</td>
<td>McCormack, 1984</td>
</tr>
<tr>
<td>Graduate students</td>
<td></td>
<td>50</td>
<td>Avg. affect</td>
<td>None</td>
<td>Constantine, 1981</td>
</tr>
<tr>
<td>Adults (18-64)</td>
<td>Unmarried</td>
<td>40</td>
<td>Avg. affect</td>
<td>Negative</td>
<td>Malik, 1981</td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>57</td>
<td>Avg. affect</td>
<td>None (r = -.15)</td>
<td>Larson et al., 1982</td>
</tr>
<tr>
<td>Young adult women (19-33)</td>
<td>Normal controls compared to bulimic patients</td>
<td>39</td>
<td>Absence of disorder</td>
<td>Negative</td>
<td>Larson &amp; Johnson, 1985</td>
</tr>
<tr>
<td>Adults</td>
<td>Normal controls compared to psychotic patients</td>
<td>16</td>
<td>Absence of disorder</td>
<td>Negative</td>
<td>Delespaul &amp; DeVries, 1987</td>
</tr>
<tr>
<td>Retired adults (55-88)</td>
<td>Married</td>
<td>61</td>
<td>Avg. affect</td>
<td>None (r = -.20)</td>
<td>Larson et al., 1985</td>
</tr>
<tr>
<td></td>
<td>Unmarried</td>
<td>31</td>
<td>Avg. affect</td>
<td>Negative (r = -.53)</td>
<td>Larson &amp; Johnson, 1985</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Life satisfaction</td>
<td>None (r = -.24)</td>
<td>Larson et al., 1985</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Life satisfaction</td>
<td>None (r = -.02)</td>
<td>Larson et al., 1985</td>
</tr>
</tbody>
</table>

Note. The independent variable in this table is the amount of time in daily life people reported being alone, as measured by the Experience Sampling Method. The dependent variable is adjustment as represented by the designated measures of adjustment.

*These associations were computed by the author with data from the specified study. All other associations are taken from the text of the identified source.
will be useful later in life (see also Boulding, 1962; Rubenstein & Shaver, 1982). Many artists and creative people appear to have developed a tendency to spend a large amount of their time alone when children, a tendency that became essential to their creative work in adulthood (Bush, 1969; Storr, 1988). There may also be individual differences, for example in the trait of introversion, that make solitude beneficial for some but not for others. At this point, however, solitude has not been shown empirically to be a valuable part of a child’s experience.

Adolescence

Adolescence brings with it new levels of personal and social awareness that may make solitude both more meaningful and more lonely. The beginning steps of this new awareness are evident in middle childhood when children learn that their facial expressions reveal their feelings and that letting others know their feelings can be undesirable (Saarni, 1984). In adolescence this insight is elaborated into a more complete ability to take the point of view of the other, giving teenagers a perception of themselves as the world sees them (Selman, 1980). Whether they like it or not, they must take on the task of image management, the Goffmanian challenge of dealing with friends’ and parents’ impressions of who they are (Elkind, 1980). The result for many teens is what John Broughton (1981) has called “the divided self”: he found many teenagers to be aware of having two selves, a staged exterior self, enacted with others, and what they experienced as a truer, but more tentative, inner self that is not shared with anyone.

In this developmental context, solitude might begin to have conscious and deliberate functions. Research shows that adolescents come to understand time alone as an opportunity for privacy (Wolfe & Laufer, 1974) and a situation in which one may act differently (Rivlin & Wolfe, 1972). Thus, this time “off stage” potentially provides the adolescent a release from the public self, a reprieve from the situation of acting, of being judged, and perhaps of trying to present oneself as more cheerful and happy than one really feels inside. It also offers a potential refuge for this newly discovered, but tentative, inner self: a time to think, explore, and feel what lies behind one’s public persona. In interviews with teenagers, Freeman, Csikszentmihalyi, and Larson (1986) found older adolescents to be quite articulate about the deliberate use of time alone for this kind of self-directed thought. These adolescents spoke of a “need” to be alone and saw it as an important opportunity for independence from others, reflection, and self-exploration.

This is not to say that solitude is no longer lonely—it is as we saw in Part II—but that this loneliness may be accepted. When they were alone
adolescents in two ESM studies did not report lower motivation than when with others (Larson & Csikszentmihalyi, 1978; Larson et al., 1982). And one of these studies showed that the amount of time an adolescent spent alone to be independent of life-situational factors, like number of friends, closeness to family, and amount of involvement in extracurricular activities, suggesting that it may be voluntarily chosen (Larson, 1979).

The potential value of solitude at this age period can be examined in terms of the developmental tasks adolescents face in our culture. One such task for which solitude might be relevant is that of individuation or autonomy from parents (Blos, 1962; Steinberg & Silverberg, 1986). Within the family context it is likely that the process of individuation is enacted in part through a child’s negotiation of rights to spend time alone, to keep the bedroom door closed, and to persuade other family members to leave you alone. Parke and Sawin (1979) have demonstrated a substantial increase in adolescence in the granting of these elements of privacy within the home and shown that they are interrelated with parental dispositions facilititive of autonomy. Research is yet to be done that fully spells out the accomplishment of autonomy in terms of privacy and time alone within this ecology of home life.

A second developmental task for which solitude is pertinent is that of identity formation (Erikson, 1968). In many traditional societies youth achieve their status as adults only through a period of solitude in which they search for a personal sign or vision (Erikson, 1968; Suedfeld, 1974, 1980). The freedom from the influence of others and the experience of greater concentration in solitude provide favorable conditions for these activities. The acute loneliness of solitude in adolescence suggests that it is unavoidably an occasion of identity questioning. Aloneness is a time when one steps outside the fixed definition of self assigned by the peer group or parents and may provide an important opportunity to consolidate a personally defined self.

No research has been carried out that directly tests the relationship between experiences of solitude and identity development. McCormack, however, has found an association between the amount of time a teenager spends alone and the formulation of life goals based upon internal as opposed to external standards (McCormack, 1984; McCormack & Larson, in press). Solitary adolescents reported future plans that were justified in terms of internal personal values and standards, while adolescents with less solitude were more likely to justify their plans in terms of external conventional values like success and financial reward. In addition, two studies suggest a relationship between amount of time spent alone and general adjustment during adolescence (Table 1). Both found a quadratic relationship between amount of time spent alone and indices of a teenager’s adjustment, with those teenagers spending an intermediate
amount of time alone appearing to be the best adjusted. These findings suggest that some amount of time alone—apart from the demands of family and the intensity of friends—is related to better functioning.

Too much solitude, however, appears to be related to poorer adjustment. As among children, large amounts of solitude may reflect a schizoid personality or poor peer relations and thus be related indirectly to maladjustment, misconduct, and a likelihood of poor mental health later in life (Parker & Asher, 1987). Gold & Petrono conclude that "solitariness is a hallmark of the unsocialized delinquent (1980, p. 510)." Hansell, Mechanic, and Brondolo (1986) also found solitary adolescents to be more depressed and anxious, suggesting a relationship to internalizing as well as externalizing disorders. In fact, clinically depressed and anorexic adolescents have been found to spend much of their time alone (Larson, 1986; Larson & Johnson, 1981; Merrick, 1989). Social withdrawal in adolescence is also considered to be a warning sign of a potential suicide attempt (Hawton & Catalan, 1982). While it is unlikely that solitude is the cause of these disorders, it may play a role in perpetuating them and in shielding disturbed affect and behavior.

In conclusion, spending some amount of time alone in adolescence, but not too much, appears to be related to better adjustment, at least for adolescents in the mainstream of our culture. One can also hypothesize that for many youth solitude plays a role in individuation and identity formation. Solitude appears to present adolescents a paradox. On the one hand it is boring and lonely and too much of it may lead to estrangement; on the other hand it offers a special opportunity for escape from the intense social pressures of this age period and for exploration of one's private self. Adjustment for adolescents appears to be achieved in coming to terms with this paradox, in finding a balance between the public and private sides of their lives.

Adulthood

The process of psychological development from adolescence into adulthood is often characterized as a gradual reconciliation between a spontaneous internal self and the complexities and contradictions of external, social reality (Kegan, 1982). Labouvie-Vief (1982, 1985) describes this process as a movement from insular, "intrasytemic thought" to open and interactive, "intersytemic thought." Erikson (1968) describes it as the achievement of an integrated, personal identity. Using the language I have adopted from Broughton (1981), it entails a resolution of the divided self, a reconciliation of public persona with private realities.

Given this reconciliation, we might expect that the need for solitude—as a refuge for a separate private self—might become less im-
important as a person advances into the adult years. The private self has become less separate, more integrated with a person's public self, and thus may need less refuge. Indeed the finding that adults feel less lonely and less different when alone than do adolescents (Part II above) confirms that solitude is a less distinct domain of experience for them. Consolidation of different selves may make the presence or absence of others a less salient features of most adults' experience.

It is not surprising, therefore, that various ESM studies of adults have failed to find a clear association between the amount of time spent alone and psychological adjustment (Table 1). Although the findings of one study do show an improvement in moods following an interlude of solitude (Larson et al., 1982), indicating that it can have a short-term restorative effect, there is no suggestion that spending a certain regular amount of time alone is related to better overall psychological well-being. Paradoxically, as aloneness becomes less lonely in adulthood, spending regular periods of time alone may also become less functional than it was in adolescence.

Several of the studies reported in Table 1 suggest a linear negative relationship between the amount of time a person spends alone and his or her adjustment. At the extreme, spending large amounts of time alone distinguishes members of several psychiatric samples from normal controls (Table 1). NonESM studies also indicate a relationship between extreme social isolation and poor adjustment (e.g., Langner & Michael, 1963; Lynch, 1977). While none of this research clarifies which variable is causal—is extreme solitude pathogenic, or might it be a means of coping, of protecting a socially unpresentable private self?—one is struck by the absence of evidence that regular solitude is useful to psychological health or self-integration in adulthood. (One exception is various Japanese therapies in which solitude is a deliberate part of the therapeutic regime, see Reynolds, 1980.) Spending substantial amounts of time alone appears more likely to be associated with social alienation and maladjustment.

In adulthood the quantity of time spent alone appears to be, at least in part, a corollary of a person's social roles, and, thus, perhaps less a matter of direct, deliberate choice. Whereas the amount of time adolescents spent alone was found to be largely unrelated to life-situational factors, for adults the amount of time alone was clearly related to the roles each held. Those who were married, had children, and had higher status jobs reported less time alone (Larson et al., 1982). Likewise people depending on solitude to do their work—graduate students and people with academic jobs—spent more time alone (Malik, 1981; Prescott, Csikszentmihalyi, & Graef, 1976). Of course these are roles adults have chosen, hence adults exercise broad control over their time alone. Compared to
adolescents, however, adults appear to be less likely to seek solitude as an end in itself and less likely to go out of their way to avoid it (Larson & Bradney, 1988).

In adulthood it may not be the amount of time spent alone that is important, but how one adjusts to the portion of solitude that is associated with one's roles and life situation. While most people report more depressed affect when alone, a number of studies suggest poorer global adjustment among adults whose affect is particularly low when they are alone. Kubey (1986) found that adults who report low moods when alone in unstructured situations are more likely to be heavy TV users. Constantine (1981) found that people who report more depressed affect when alone also report feeling more depressed affect with others. Larson and Johnson (1985) found that bulimic patients stood out from normal controls in how poorly they felt when alone, particularly when alone at home, and that those bulimic patients who felt worst when alone at home reported the highest rates of symptomatic behavior and affect.

Winnicott (1958) anticipated these findings in an article on "The Capacity to be Alone" in which he proposed that psychological health in adulthood requires an ability to be separate from others and yet maintain "ego-relatedness," to be alone without succumbing to impulse, loneliness, or fear. The capacity to be alone, he argues, is "one of the most important signs of maturity in emotional development" (p. 416). In the language I have been using, it reflects an integration of the public and private self, a capacity to maintain a sense of personal constancy that is independent of immediate social reinforcement (see also Fiske, 1980). The value of solitude in adulthood, therefore, may be measured not in terms of a fixed number of hours per week, but in terms of how individuals respond when the activities of daily life separate them from the presence of others.

Old Age

Old age for many brings a realignment of public and private selves. Psychological studies of personality show that increasing age brings greater interiority (Guttman, 1977; Neugarten, 1977), and in spite of the losses common to old age, the elderly report less global loneliness than do other age groups (Peplau, Bikson, Rook, & Goodchilds, 1982; Revenson & Johnson, 1984). From a sociological perspective, retirement and old age also bring a diminution in a person's role obligations, both outside and within the family (Rosow, 1976).

Gerontologists have long debated whether these processes of psychological and social "disengagement" are voluntary and compatible with optimal adjustment (Cumming & Henry, 1961; Hochschild, 1973). As at other points in the life span, social involvement, particularly involvement
with friends, has been found to be related to greater subjective well-being (Liang, Dvorkin, Kahana, & Mazian, 1980; Lowenthal & Haven, 1968; Ward, Sherman, & LaGory, 1984). It is the quality of social involvement, however, not the quantity that is typically found to be important. The requirements of friendship do not preclude a person spending a substantial portion of his or her waking hours apart from others.

This may explain the findings that the old spend more time alone and appear to be more comfortable alone than younger age group. It may be that they have less need for the frequent social support and reinforcement that seems to be important to the well-being of children and adolescents (Larson et al., 1985). Perhaps they have established a firm enough sense of who they are that their emotional state is less dependent on the presence of others, or perhaps a lifetime of interactions has made them more skilled at feeling close to others whether they are present or not (Larson et al., 1985; Rubenstein & Shaver, 1982). The exception to this pattern is those older people who are unmarried or live alone. These individuals spend an enormous amount of time in solitude (those who are unmarried and live alone indicate being alone for an average of 73% of their waking hours) and report much lower relative moods during this time (Larson et al., 1985).

The important question is whether older individuals who spend more or less time alone are better adjusted: is there evidence of a functional relationship between solitude and overall well-being? For the married, the findings are equivocal (Table 1). There are nonsignificant negative correlations between measures of global well-being and amount of time spent alone. Other researchers have found little correlation between the extent of a person’s solitary leisure activities and well-being (Hoyt, Kaiser, Peters, & Babchuk, 1980; Longino & Kart, 1982). For the unmarried, however, spending more time alone is clearly related to lower average affective states (Table 1). These findings suggest that the amount of solitude experienced by the married (averaging 40% of waking hours) is compatible with good adjustment, but that the larger amount of solitude experienced by the unmarried may not be. In old age, as at other periods of the life span, too much solitude appears to be associated with poorer adjustment.

CONCLUSION

"Human thought is consummately social," writes the anthropologist Clifford Geertz (1973, p. 360), "social in its functions, social in its forms, social in its applications." In this sense we are never truly alone. The influences of other people permeate our private selves. Solitude is only a step back from social immersion, from the immediate support, scrutiny, and demands of others, in Goffmanian terms, from the obligation to enact
a version of ourselves. This step back, nonetheless, is a significant one. Empirically it has been shown that being alone, even for a few minutes, is accompanied by a change in people's immediate subjective states and how much time people spend alone is correlated with their overall psychological adjustment.

Within daily life solitude is distinguished as a situation when a person's thoughts, feelings, and actions are less subject to the matrix of social regulation. It represents separation from the interpersonal activities of talking, sharing, judging, and being judged. The data reviewed here suggest that at all points in the life span this separation is accompanied by a feeling of loneliness and boredom, but that this is especially true among adolescents for whom immediate sense of well-being appears to be painfu_ly dependent upon social interaction. Struggling with the developmental tasks of individuation and identity formation, adolescents, it is hypothesized, have yet to consolidate an autonomous self than can sustain them in solitude. With age solitude is experienced as less lonely and enervating; in a sense, adults feel less alone. I have suggested that this is because adults have had more opportunity to reconcile private and public realities and construct a self that can stand apart from immediate social scaffolding. Even in old age, however, people experience less positive moods when alone, and among widowed and single older people who spend three quarters or more of their waking hours alone, it is associated with lower global well-being. For all ages too much time apart from others is correlated with loneliness, depression, and psychiatric disorder.

At the same time, the freedom from social regulation provided by solitude presents an opportunity to concentrate deeply and feel less self-conscious. We might expect that this constructive potential of solitude becomes most important at points in a person's life when discrepancies exist between a person's public and private selves. Adolescence may be the most universal occasion of this "divided self," an age period when newly discovered internal feelings and thoughts seem to conflict with the judgmental external worlds of peers and family (Broughton, 1981). This may explain the findings, first, that solitude is acutely lonely to adolescents, but second, that intermediate amounts of solitude are correlated with better adjustment—solitude may have value as an occasion for self-nurturant thoughts and for identity development. For similar reasons we might expect solitude to be valuable for adults going through life changes that involve self-redefinition—divorce, widowhood, career change (Fiske, 1980). In the flux of these transitions, opportunities to be alone might be hypothesized to provide a chance to explore personal feelings and escape from the roles people expect you to play. Across the life span solitude may be most useful for individuals whose careers or life styles
require freedom from social constraint: artists, scholars, political and social dissidents.

The evidence leads to the hypothesis that after adolescence it is not the quantity of solitude that is significant to a person's well-being, but the quality: the capacity to tolerate the loneliness of separation from others and make use of the constructive potentials of solitude. The ability to be alone without succumbing to panic or disturbed means of coping confers a measure of independence from social definitions of self. It holds open the chance for self-renewal; in Winnicott's (1958) words, solitude provides a chance to "rediscover the personal impulse (p. 419)." The assumption that people exercise control over their lives presupposes that they have opportunities across the life course to step back from the pressing influence of others to reflect on their experience and make choices congruent with personal values and feelings. The capacity to be alone represents this opportunity.

Directions for Further Research

The research findings presented here are primarily descriptive. They illuminate the experiential ecology of solitude across the life course as elucidated by one methodology, suggesting stages at which it may serve certain functions. However, they do not provide definitive answers on the difficult questions of cause and effect. Adopting what Berscheid (1977) said about privacy, solitude can be treated as a dependent or an independent variable; we can ask what conditions lead people to be alone and what conditions result from it. Ultimately researchers might strive to spell out a path model, based upon longitudinal data, in which various factors leading people to be alone are related to a range of different types of solitary experiences which in turn are related to differing degrees of psychological adjustment.

In this path model, a mediating variable worthy of much attention is the degree to which solitude is voluntary. As a simple prediction, it might be expected that involuntary time alone will be lonely and alienating and that which is voluntary will be constructive and healthy. Measurement of voluntarily within the ecology of daily life, however, is more difficult than it seems, involving both immediate and distal elements of choice and constraint, such as activity demands on people's time, physical features of their environments, and the availability and willingness of others to be with them. Within families, it is necessary to consider the politics of solitude within the family system. Researchers also need to consider individual differences in the desire and need for solitude (Constantine, 1981; Twight, Smith, & Wissinger, 1981) and personality variables such as shyness (Zimbardo, 1975), trait loneliness (Jones, 1982), and introversion/
extroversion (Diener, Larsen, & Emmons, 1984). Research combining ESM or time-sampling methods with interview and questionnaire would be useful.

Another important mediating variable may be the cognitive skills people use to structure solitude. What strategies do people employ to organize intervals of solitary time and cope with loneliness or other threatening feelings that arise? How do adolescents and adults deliberately use solitude—as an escape or as a means for self-renewal? A fruitful but difficult focus of research is how people handle the immediate psychological transition from being with people to being alone. Again information from a range of methodologies is required. Much work is currently being done to train children in social skills (Wanlass & Prinz, 1982); Rubenstein & Shaver (1982) suggest we also need to train them in "solitude skills," in the capacity to be alone.

Lastly, this paper has given insufficient attention to how the experience of solitude is embedded within cultural-historic systems of meaning. I have argued that the value of solitude lies in the opportunity it provides for mediating differences between public and private selves, but have not analyzed how the need for this mediation might differ with variations in the imagery of selfhood associated with culture, social class, or gender. While the concept of privacy appears to be universal (Altman, 1977), we know there are dramatic differences between societies in which solitude (physical privacy) is integral to their way of life (Downs, 1972), and societies in which being alone is avoided at all cost (Bowen, 1954; Fortune, 1932). Occasions of solitude are presumably more valuable within an indigenous psychology that values self-contained individualism—such as that dominating the mainstream of our culture—than in a cultural system of meaning in which boundaries between people are not given such emphasis. Given the current debate on the value of individualism in our society (Sampson, 1988), it is all the more important that we investigate how people experience, use, or suffer occasions when modern life finds them—or leads them to be—alone.

REFERENCES


Larson, R. (1984, July). *States of consciousness in personal relations: A life span perspec-


DAILY EXPERIENCE ALONE


