

Solitude: An Exploration of Benefits of Being Alone

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In her autobiography, the French writer Colette (1966) wrote, “There are days when solitude is heady wine that intoxicates you, others when it is a bitter tonic, and still others when it is a poison that makes you beat your head against the wall” (p. 139). As her observation suggests, solitude can be experienced as positive—like a “heady wine” or a healthful “bitter tonic”—or as negative, like beating one’s “head against the wall.” Often, negative solitude experiences are characterized by loneliness, which, because of its painful and potentially harmful nature, has been the object of much psychological research (Ernst & Cacioppo, 1999). By contrast, positive experiences of solitude have been relatively neglected by social theorists, especially psychologists. From a broad social perspective, however, solitude’s benefits often outweigh its detriments (Koch, 1994; Storr, 1989).

Throughout history, many philosophers, spiritual leaders, and artists have attested to the benefits of solitude. For example, following a common template for spiritual leaders, Moses, Jesus, Mohammed, and the Buddha all sought solitude and then returned to share with others what they discovered. Likewise, many writers, such as Thoreau, Dickinson, Kipling, and Kafka, have been noted for the role solitude played in their creative processes. With an eye to this rich spiritual and literary tradition, the present article reviews recent research and theory related to the positive aspects of solitude. We seek to identify more precisely the kinds of benefits that solitude provides, and the environmental settings, personality traits, and developmental capabilities that help mediate those benefits. By detailing what researchers and theorists have discovered—and what they have yet to discover—we hope to stimulate further investigation of this historically vital social phenomenon.

At first, it may seem odd to speak of solitude as a “vital social phenomenon.” However, as suggested above, the spiritual, religious, creative, and artistic gains resulting from solitary experiences have impacted countless social movements and practices, and solitaries and hermits have long played influential parts in human societies. A second way that solitude is inherently social is that it relies

upon the human capacity to reflect upon and interpret one's own experiences, a process in which theorists such as George Mead and Vygotsky have seen the strong influence of socialization. Building upon their work, Bogdan (2000) has argued that our ability to consider our own thoughts arises from our development of the ability to represent the thoughts of others. From this perspective, the mental experience of solitude is ineluctably as social as any other psychological experience. A third reason—one that we find most compelling—for treating solitude from a social perspective is the following paradox: People have biological needs for attachment, affiliation, and sociality, yet they continually seek to spend time in solitude. How do we account for this apparent need for solitude, and what do we know about the benefits of solitude for which people are searching?

CONCEPTIONS OF SOLITUDE

The *Oxford English Dictionary* (Simpson & Weiner, 1991) defines *solitude* primarily as “The state of being or living alone; loneliness; seclusion; solitariness (of persons)” (p. 977). The conception of solitude used in this article is compatible with “being or living alone,” “seclusion,” and “solitariness”; however, to keep the analysis within limits and to avoid confusion, we distinguish “solitude” from “loneliness” and restrict discussion to the former. This restriction is in keeping with the way many people conceive of solitude, emphasizing benefits of time alone. In contrast to solitude, loneliness is generally seen as a negative emotional state which most people seek to avoid; it indicates deficiencies in the number or extent of one's social relationships (e.g., Marcoen & Goossens, 1993; Peplau & Perlman, 1982; cf., Wood, 1986). The painful nature of loneliness, as well as the relationship between loneliness and psychological disorders, such as schizophrenia and depression, may account for the relative prevalence of psychological research devoted to loneliness as opposed to solitude. Demonstrating this disparity, a December 2002 keyword search of the *PsychInfo* database of psychology research yielded 1,790 articles published since 1990 about *loneliness* but only 177 related to *solitude*.

However, while psychological research has largely focused on loneliness, popular discourse has shown concern for the benefits of solitude. For example, a December 2002 keyword search of the *Infotrac General Reference Center* for newspaper and magazine articles published since 1990 yielded 729 articles related to *solitude* and 538 articles about *loneliness*. Likewise, a keyword search at the same time of two popular online booksellers yielded an average of 449 books dealing with *solitude* and 376 books related to *loneliness*. A quick survey of some of the titles of the solitude-related articles and books gives a consistent indication of the flavor of popular discourse on solitude: *Celebrating Time Alone* (Fisher, 2001), “The Pleasure of Solitude” (Japenga, 1999), “Time Out from the World” (Warwick, 1999), “How to Get the Time Alone You Need” (Maynard, 1998), and so on. Additionally, as

a 1996 *Wall Street Journal/NBC News* poll indicated, 31% of U.S. residents wanted more time to themselves, whereas only 6% wanted less (Crossen, 1996).

As another manifestation of popular discourse on solitude, the Wilderness Act of 1964 (U.S. Public Law 88–577) mandates that congressionally designated wilderness areas promote opportunities for solitude (Shafer & Hammitt, 1995). Although this Act remains the “principal statutory foundation for wilderness preservation and management in the United States today” (Hendee, Stankey, & Lucas, 1990, p. 119), it does not specify exactly what is meant by *solitude*. A variety of leisure researchers and environmental psychologists have attempted to fill this definitional gap (e.g., Hammitt, 1982; Hammitt & Madden, 1989; Marshall, 1972; Pedersen, 1997). Among leisure researchers in particular, *solitude* is often used to denote a type of privacy. Appropriate to its status as a legal right, *privacy* usually refers to an ability to control the degree to which other people and institutions intrude upon one’s life (e.g., Pedersen, 1999; Westin, 1967). As a subtype of privacy, *solitude* refers to a condition in which a person is alone and unobserved but not necessarily separated by formidable barriers or great distance from others (e.g., Marshall, 1972; Westin, 1967).

To summarize, the paradigm experience of solitude is a state characterized by disengagement from the immediate demands of other people—a state of reduced social inhibition and increased freedom to select one’s mental or physical activities. Such a state is typically experienced when a person is alone. However, aloneness is not a necessary condition for solitude: A person can experience solitude while in the presence of others, as when “alone” in the company of strangers or when an intimate couple seeks solitude for togetherness. These latter are peripheral cases of solitude, but not less important because of that. In this article, for clarity’s sake, we use *solitude* primarily in its paradigmatic sense of being alone. Where relevant, we also include discussion of more peripheral instances of solitude.

BENEFITS OF SOLITUDE

Naturalistic studies have shown that adult humans spend approximately 29% of their waking time alone (Larson, Csikszentmihalyi, & Graef, 1982); and, if the magazine articles, public opinion surveys, and leisure studies research discussed above are indicative, many people want even more time alone. This raises the question: What do people gain—or believe they gain—from spending time in solitude? According to Suedfeld (1982), early psychiatric practitioners, such as Rush, Mitchell, and Janet, believed that one benefit of solitude was that it warded off the potential perils of overstimulation. Though this may be an important benefit for some people (e.g., those suffering from schizophrenia—cf. McReynolds, 1960), the benefits afforded by solitude are much broader than that.

Freedom

Solitude provides opportunities not offered by our usual social environment to engage in activities or thoughts we find intrinsically interesting. For example, when asked to identify some positive effects of their own previous solitude experiences, separate samples of backpackers (Hammitt, 1982) and of university students (Long, 2000) indicated that freedom of choice with respect to actions and thoughts was among its most important benefits.

To say that freedom is a benefit of solitude might seem trivially obvious. We emphasize it here, however, for two reasons. First, freedom is a precondition for many of the other benefits described below; and, second, the meaning of freedom is far from obvious. Clearly, this is not the place to enter into a discussion of the many meanings of freedom (cf. Dennett, 1984). A twofold distinction between “negative” and “positive” freedom will suffice for our purposes (Berlin, 1969). Negative freedom is *freedom from* constraints; positive freedom is *freedom to* engage in desired activities—not because of the absence of constraints but because of the presence of necessary resources, whether internal (e.g., education) or external (e.g., financial).

Koch (1994) offers a good example of one type of negative freedom afforded by solitude. The mere presence of other people, he notes, obliges us to coordinate our experience with theirs, thereby diminishing the scope of our actions. As one’s experience of viewing a painting in a museum changes when another person walks up, our subjective experience is influenced by the slightest interaction with another person. We become conscious not only of the object we are viewing, but also of ourselves as viewers. Solitude can minimize such intrusive self-consciousness by reducing the immediate demands of experiencing ourselves as the object of another person’s thoughts and actions.

Consistent with Koch’s analysis, studies using the Experience Sampling Method (ESM) have shown decreased self-consciousness when a person is alone (Larson et al., 1982; Larson, 1990). (In ESM studies, researchers send signals to electronic pagers worn by participants, and these signals direct the participants to complete a report of what they were doing and how they felt at the moment the signal was received. To provide a representative sample of participants’ activities, the signals are sent at random times throughout normal waking hours.) In the field of leisure studies, it has also been found that people seek recreational solitude to optimize their freedom of choice with respect to their thoughts and actions, rather than simply to get away from other people (Hammitt, 1982; Hammitt & Madden, 1989). Often traveling in groups, recreationists seek autonomy and privacy, not necessarily absolute aloneness, in nature.

The increased (negative) freedom afforded by solitude does not come without cost, as the research by Larson and his colleagues also suggests (Larson et al., 1982; Larson, 1990). When alone, people often report a more negative mood than when they are with other people. Invoking solitude’s close relation with

loneliness, Larson et al. warn that “to take advantage of the opportunities afforded by solitude, a person must be able to turn a basically terrifying state of being into a productive one” (p. 52). Stated differently, the (positive) *freedom* to engage in a particular activity requires more than simply a *freedom from* constraint or interference: it also requires the resources or capacity to use solitude constructively. We will return to this issue shortly.

Creativity

Freedom is often considered a prerequisite for creative activity (Amabile, 1983). To the extent, then, that solitude affords freedom, it should also facilitate creativity. Indeed, the link between creativity and solitude is so ubiquitous that it has become almost a cliché: the scientist alone in a laboratory, the writer in a cabin in the woods, or the painter in a bare studio. On a more mundane level, Csikszentmihalyi (1996) has found that adolescents who cannot tolerate being alone often fail to develop their creative talents because such development usually relies on solitary activities, such as practicing one’s musical instrument or writing poetry in one’s journal.

Creativity consists of forming associations between previously unrelated ideas and giving expression to those associations in ways that are useful or valuable to the self or others. We consider here two ways in which solitude can facilitate creativity—first, by stimulating imaginative involvement in multiple realities and, second, by “trying on” alternative identities, leading, perhaps, to self-transformation. These, and creativity more generally, could not occur without a loosening—deconstruction and subsequent reconstruction—of cognitive structures, which we will also discuss briefly.

Imaginative Involvement in Multiple Realities. In his analysis of multiple realities, Schutz’s (1945) described various cognitive styles (e.g., specific sense of time, specific experience of self, specific form of sociality, etc.) characteristic of particular modes of consciousness. Adopting Schutz’s perspective, one could argue that the cognitive characteristics associated with solitude (e.g., limited sociality, limited intersubjectivity, personal time perspective) offer opportunities for transition from the social “world of work” to the potentially creative worlds of “phantasy” and/or scientific theorizing. Taking advantage of the creative potential of solitude requires openness to this transition between workaday sociality and imaginative involvement in other realities.

The experiences of an Antarctic research team illustrates the way solitude facilitates such imaginative involvement (Barabasz, 1991). Some members of the team were exposed to three weeks of almost complete isolation doing field research; another group was part of a nine-person party who spent the winter staffing a largely deserted research station. Following their Antarctic solitude,

members from both teams made such comments as “[I] could make my own stories, live them in my mind as if they were real life,” “I could block things out easier”; “More vivid daydreams”; “Concentrate on what was there better and get absorbed in it better” (Barabasz, 1991, p. 213). Additionally, whether they were in the field or the research station, team members scored significantly higher than a control group of students and a pre-isolation sample of team members on Tellegen and Atkinson’s (1974) absorption scale, which contained items like “I like to watch cloud shapes change in the sky” and “While watching a movie . . . , I may become so involved that I forget about myself and my surroundings . . .”

Self-transformation. Alternative realities imply alternative selves, that is, creative changes in a person’s self-concept (and hence in related thoughts, feelings, and actions). Otto Rank (1936/1978), an artist and early disciple of Freud, made such self-transformation central to the psychotherapeutic process (see, also, Maslow, 1971). More recently, Storr (1989) has argued that, by separating us from our usual social and physical environments, solitude can remove those people and objects that define and confirm our identities. The people we see and the places we frequent reinforce our identities as students, parents, police officers, or whomever. Storr suggested that, by extracting us from our customary social and physical contexts (or at least altering our experience of them), solitude facilitates self-examination, reconceptualization of the self, and coming to terms with change. Koch (1994) has also discussed how solitude facilitates self-attunement and reflection. On a more empirical level, studies have shown that people often use solitude for contemplation of concerns both internal and external to the self (Long, 2000; Long, Seburn, Averill, & More, in press; Pedersen, 1997, 1999); these same studies suggest that people often gain from solitude a new understanding of themselves and their priorities.

Reconstitution of Cognitive Structures. Imaginative involvement, self-transformation, and creativity involve the emergence of new conceptual associations and combinations. The daily environment of most people is highly structured. If environmental influences are radically reduced or altered, mental structures, too, may be disrupted, thus allowing thought to become more fluid and differently organized.

Based on his sensory deprivation research, Suedfeld (1982) points out that, when levels of stimulation drop significantly below the optimum, the person may “begin to generate (or perceive more sensitively) internal stimuli,” such as physical sensations, daydreams, distorted thoughts, and shifting emotions (p. 64). As during sensory deprivation, the mind in solitude may be better attuned to, or more likely to generate, the daydreams, shifting emotions, and the novel thoughts and associations that contribute to creativity.

Needless to say, most solitude experiences do not approach the extreme levels of sensory deprivation studied by Suedfeld (1982). However, the solitude of a

sensory deprivation chamber and solitude in more familiar environments share certain features in common; most important, perhaps, are the relative novelty of the situation, the relative absence of externally imposed structure, and increased salience of internally generated thoughts and feelings. This is an issue about which we will have much more to say in a subsequent section on theoretical interpretations. For now, there are two other benefits of solitude that deserve brief discussion, namely intimacy and spirituality.

Intimacy

At first, it might seem paradoxical to speak of intimacy as a benefit of solitude; the paradox, however, is more apparent than real. Though solitude usually denotes aloneness, many people experience feelings of intimacy while in solitude. The poet Lord Byron (1812/1996) described solitude as the place “where we are least alone” (p. 445); similarly, during his stay at Walden, Thoreau (1854/1981) wrote, “I have a great deal of company in the house, especially in the morning when nobody calls” (p. 206); and in *Paradise Lost*, Milton (1667/1991) observed that “solitude sometimes is best society” (p. 529). Observations such as these are more common than might be expected. Based on interviews, examples from novels and popular songs, and analysis of dictionary definitions, Nisenbaum (1984) found that solitude often involves feelings of connection with another person. In an elaborate study, Oliver (1991) tracked a group of Antarctic winter-over personnel and found that their MMPI Dependency and Paranoia scale scores decreased significantly as the winter progressed, indicating that personnel became more self-sufficient and trusting. In addition, on the Personal Orientation Inventory (Shostrom, 1964), a scale related to Maslow’s (1962) concept of a self-actualizing person, participants’ Existentiality scores and Capacity for Intimate Contact scores increased over time. These scores indicate that the winter-over personnel experienced increases in their ability to react to situations without rigid adherence to rules and in their motivation and capacity for intimacy.

Although empirical research on the phenomenon is sparse, several theorists have attempted to explain the association between solitude and intimacy. As will be described more fully in a subsequent section on life-span development, Winnicott (1958) contended that, as an infant, one must learn to be alone in the presence of a caregiver in order to develop the capacity to be alone as an adolescent or adult. To avoid later loneliness and anxiety, one must take the supportive environment provided by the caregiver and introject it, or build it into one’s personality structure. For this reason, Winnicott argued that the person who has developed the capacity to be alone is never truly alone. Rather, a presence unconsciously equated with a parental, caregiving context is always available. (One can view many children’s use of such transitional objects as teddy bears and blankets as an attempt to physically render such a caregiving presence.)

Building on Winnicott's (1958) framework, Modell (1993) noted that the person in solitude can be sustained by the introjected presence of a real or imagined person. For example, a lover might rely upon the supportive presence of his or her beloved, whereas a poet might rely upon the supportive presence of an imaginary muse. Because Modell believed that one's passionate interests could take on the psychological significance of a lover, he would explain that the poet's muse might arise as a result of the poet's passionate interest in poetry. The solitary person can therefore avoid loneliness, anxiety, and boredom by relying either on his or her relationship to a supportive person or upon the absorbing nature of some passionate interest or commitment.

Addressing these issues from a philosophical perspective, Koch (1994) pointed out that the social disengagement of solitude does not preclude all other types of engagement. One's consciousness in solitude is not limited to self-focus or inward direction. He described certain outer-directed solitude experiences as "engaged disengagement," involving "*indirect* or *substitutive* engagement" with others (p. 57). These indirect, substitutive engagements can occur when we project our concerns onto objects in our environment, as when a certain sight, smell, or sound brings to mind an old friend or lover. Koch notes that we often engage with objects by personifying them, as when Thoreau (1854/1981) spent a few hours observing a battle between opposing ants and contemplating the ants' patriotism and heroism. Resonant with Winnicott's position (1958), Koch also contends that we avoid loneliness by experiencing solitude against the background of our social relations. That is, highlighting the essentially social character of positive solitude, loneliness can be kept at bay as long as we are aware in some way that we have meaningful connections to other people. If we become so habitually withdrawn into solitude that our relationships become severed or strained, then we must confront anxiety and alienation.

Spirituality

Enhanced spirituality is one of the benefits most popularly associated with solitude. A wide range of groups have reported spiritual experiences in solitude, including tribal cultures who have incorporated a solitary quest for a higher level of consciousness into their adolescents' rites of passage; solitary wanderers who have recounted feelings of unity with God, the universe, or nature; and major religious figures who have reported divine communion in solitude, including, as mentioned in the introduction, Moses, Jesus, Mohammed, and the Buddha, as well as many prophets and mystics who came after them (e.g., Suedfeld, 1982). Today, as for the last several thousand years, monks and nuns of various religious persuasions cloister themselves in collective devotional solitude, and solitary meditation plays a part in many spiritual regimens (e.g., France, 1997; Merton, 1956).

In his essay on religious solitaries, France (1997) examined the connection between solitude and spirituality from different cultural perspectives. For example, he noted that Taoists value solitude because it replaces the distorting pressures of society with the healing power of nature. In presenting the perceived function of solitude among early Christian hermits, he relates a story of a monk who was attempting to explain to fellow monks the significance of solitude for spiritual development. The monk “poured some water in to a vase and said: ‘Just look at this water.’ They did, and it was murky. A little later he said to them: ‘See now how the water is cleared.’ And they could see their faces in it like a mirror. And he said to them: ‘This is like the man who lives among other men and because of their turbulence cannot see his own sins, yet when he lives alone, especially in the desert, he can see his failings’” (p. 27).

Similar to the philosophy of the Taoists, the mystical experiences of the solitary voyagers, and the tribal solitary rites of passage, the clarification of the water in the monk’s vase depicts the belief that solitude facilitates not only spiritual insight, but also the kind of freedom and creative self-transformation discussed earlier. When experiencing the relative social freedom and lowered inhibitions of solitude, one’s freedom to focus on spiritual concerns may increase. From the perspective of many spiritual traditions, solitude enhances one’s ability to contemplate one’s place in the universe and one’s own thoughts and desires. Likewise, one’s freedom to search for one’s spiritual essence (e.g., one’s *atman*, soul, etc.) is augmented by solitude.

Spirituality is also closely related to feelings of intimacy or connectedness to others and to the world. When in solitude, whether in a forest, monastery, or home, one can withdraw into the intimacy of a spiritual encounter with oneself, one’s environment, or one’s God. For instance, again highlighting the social nature of solitude, Pedersen (1999) found that undergraduates at his church-affiliated university indicated that confiding was an important function of solitude, and when asked in whom they confided while in solitude, many of these participants’ responses involved prayer or some other spirituality-related activity. In summary, whether for confiding, connection, or insight, followers of a wide range of spiritual traditions have used solitude to enhance their spiritual pursuits.

CONDITIONS THAT FACILITATE SOLITUDE

Considering the potential benefits of solitude, one might expect that social scientists would have devoted considerable research to the conditions that facilitate its experience. That is not the case. Yet, there is sufficient research to warrant some tentative conclusions. In this section, we review research, first, with respect to the physical settings that are most conducive to solitude and, second, with respect to personality correlates.

Environmental Settings

Using the ESM procedure to obtain direct information on participants' daily experiences of time alone, Larson and colleagues concluded that, for people of all ages, a majority of time spent alone occurs in the home (Larson et al., 1982; Larson, 1990). In a questionnaire study by Long (2000), 39% of the undergraduate students who described a positive experience of solitude said that it occurred in their home or room. The second most frequently mentioned setting for positive solitude was outdoors in a natural environment (27% of the participants). However, when undergraduates in the same study were asked to describe the ideal place for seeking solitude, the majority (67%) indicated some aspect of the natural environment. Specifically, going to a beach was endorsed by 26% of participants, a mountaintop was endorsed by 18%, a river or lake by 17%, and a forest or woods by 6%.

As noted earlier, the Wilderness Act of 1964 (U.S. Public Law 88-577) mentions solitude as one of the benefits to be provided by wilderness areas. The U.S. Congress's intention in this regard seems to be consistent with the ideals of most people. As just noted, however, most episodes of solitude occur in the home, not in nature. What accounts for this discrepancy between the actual and the ideal? A difference in base rate is one obvious factor: More time is spent at home than in nature, and therefore it is to be expected that more episodes of solitude would occur at home. Other factors, however, may be more theoretically significant. In Long's (2000) study, when positive experiences of solitude were compared with negative solitude experiences, 75% of the negative episodes occurred at home versus 39% of positive episodes. When comparisons were limited to the episodes that took place at home, the primary differentiating factor between positive and negative episodes was whether or not the person *wanted* to be alone at the time (i.e., whether or not they were actively seeking solitude at the time of the episode). The voluntariness of the episode is perhaps the single most important factor distinguishing between positive and negative experiences of aloneness. People seldom find themselves in nature except by choice, and hence are less likely to experience loneliness or boredom in that setting.

Several researchers in leisure studies and forestry management have investigated how solitude is experienced in natural settings. In one such program, a survey of backpackers showed that 54% felt that solitude was "extremely" or "very" important to their wilderness experience, whereas only 6% felt that it was unimportant (Patterson & Hammitt, 1990). Indicating that their mean maximum tolerable backpacking party size was between three and four people, participants in this study were willing to include others in their recreational solitude. A related study demonstrated that wilderness recreationists who valued solitude were more likely to engage in privacy-enhancing behaviors, such as camping out of sight of other people or using less-traveled trails (Hammitt & Patterson, 1991).

Often traveling in groups, recreationists seek autonomy and privacy, not necessarily absolute aloneness, in nature.

To summarize briefly, the voluntariness or degree of control a person has in a situation may be the most important factor that tips the balance between an experience of positive solitude and an experience of loneliness. This is hardly surprising in light of our earlier discussion of freedom as one of the major benefits of solitude.

Positive solitude is also associated with places described as beautiful or awe-inspiring, places most often found in nature. Beyond these few generalizations, it is not possible to specify more precisely the environmental settings most conducive to positive solitude. The reason is not simply a lack of relevant research, though that is certainly an issue. The reason is, rather, that almost any environment can be conducive to solitude, or not, depending on the needs, expectations, and self-perceived capabilities of the person at the moment. We therefore turn to some of the personal characteristics associated with solitude.

Personality Correlates

In the same way that there is a wide range of settings in which one can experience solitude, there are wide individual differences in preference for, and tolerance of, solitude. Attempting to measure some of these individual differences, Burger (1995) constructed the Preference for Solitude Scale (PSS), a 12-item scale designed to assess a person's preference to spend time alone. Each item forces respondents to choose between spending time in a particular hypothetical situation either alone or in social interaction with others. Studies have shown that the PSS is related to the amount of time people spend in solitude (Burger, 1995; Long, 2000). But what accounts for the preference? One way to address this question is by examining the correlates of the PSS with other personality variables.

Among the "Big Five" personality traits, the PSS is strongly correlated with introversion ($r = .56$; Burger, 1995) and more modestly with neuroticism ($r = .37$; Burger, 1995). The PSS is also related to loneliness ($r = .42$ in Burger, 1995; and $r = .27$ in Cramer & Lake, 1998), as measured by the UCLA Loneliness Scale (Russell, Peplau, & Cutrona, 1980). The relations between the PSS, on one hand, and the UCLA Loneliness Scale and neuroticism, on the other hand, deserve a brief digression. Burger (1995) suggests that these relations may reflect the positive quality of aloneness for people who feel excessively anxious and/or unsuccessful with respect to social interaction. That is a reasonable hypothesis with respect to one subset of people—or one kind of benefit (i.e., freedom from social pressure). It does not, however, apply to everyone or to all kinds of benefits.

Long et al. (in press) explored the relation between personality and nine positive and negative outcomes commonly associated with solitude. Factor analysis

suggested that the nine outcomes could be reduced to three dimensions. Factor 1 included such outcomes as problem-solving, self-discovery, creativity, inner peace, and anonymity (freedom from social pressure). Factor 2 was essentially a loneliness dimension; and Factor 3 was defined primarily by intimacy and spirituality. It will be noted that the main benefits associated with Factor 1 (e.g., freedom and creativity, including self-discovery) and Factor 3 (intimacy and spirituality) correspond roughly to those discussed earlier in this article. Our present concern is with the personality correlates of these dimensions.

Factor 1 scores were correlated with the Preference for Solitude Scale (PSS, $r = .32$) and Averill's (1999) Emotional Creativity Inventory (ECI, $r = .32$). (According to Averill, 1999, the ECI assesses the ability to experience unusual emotions, but in an effective and authentic manner; among the "Big Five" personality dimensions, it is most closely related to Openness to Experience.) The ECI, but not the PSS, was also associated with Factor 3 (intimacy/spirituality) scores ($r = .32$).

These findings with respect to the personality correlates of positive solitude are admittedly meager. In contrast to loneliness, the personality correlates of which have been much investigated (see Ernst & Cacioppo, 1999, for a review), little is known about the people who are able to spend time alone in a constructive manner. However, the ability to be creative, especially in the domain of emotion, does seem to be especially important. This is not surprising, given the relationship discussed earlier between solitude and creativity in general as well as that between solitude and spirituality, which is often an emotionally creative experience (Averill, 2002).

Fortunately, there is another way to explore individual differences in the capacity to benefit from solitude—namely, by examining how that capacity develops and changes over the life span.

SOLITUDE ACROSS THE LIFE SPAN

Individual differences in the preference for, and capacity to benefit from, solitude may begin at a very young age. For example, some theorists believe that individual differences in infant-caregiver attachment may have an enduring influence on how time spent alone is experienced. In psychology, attachment implicates the beliefs and expectations about oneself and others that develop out of early childhood relationships with one's caregiver and that, as some researchers contend, impact relationships throughout the lifetime (e.g., Bartholomew & Horowitz, 1991; for a review, see Simpson & Rholes, 1998.) Though attachment research generally concerns relationships between individuals, especially intimate relationships, it also incorporates some consideration of experiences of aloneness. For example, the landmark "strange situation" attachment experiments involved evaluation of an infant's response to separation from his or her mother

(e.g., Ainsworth, Blehar, Waters, & Wall, 1978). Likewise, as extrapolated from “strange situation” paradigm, adult attachment styles can be differentiated with respect to orientation toward solitude. Although we know of no data that bear directly on the topic, it is reasonable to assume that a securely attached adult is likely comfortable with solitude, an anxiously attached adult is likely anxious or afraid to be alone, and an avoidant adult likely selects aloneness over close relationship.

As was the case with attachment theory in general, the relation between attachment and aloneness was initially examined by psychologists who were influenced by the psychoanalytic tradition. Among the most prominent of these examinations was Winnicott’s (1958) claim that a healthy attachment to one’s mother was a prerequisite for realizing the benefits of solitude across the life span and that this healthy attachment should begin during infancy. Through solitary play and exploration in the presence of the mother, an infant must successfully internalize a supportive other in order to endure the distressing experience of physical separation. (Winnicott’s rationale for the existence of an ability to tolerate aloneness has been adopted and adapted by several of the few other psychological theorists who have written about solitude, e.g., Storr, 1989; Modell, 1993.)

From Winnicott’s (1958) perspective, the development of an ability to tolerate aloneness is a developmental milestone most children must pass. Whether or not one agrees with his theorizing, research has shown that solitude is experienced differently at different stages of the human life span. On average, except for the childrearing years, from birth through old age, a person will experience more and more time alone as he or she ages (Larson, 1990). Similarly, on average, from birth to old age, people are better equipped to handle the psychological demands of solitude as they age.

If one were to judge from the present state of psychological research, solitude has not been deemed to play an important part in the average child’s life. Though not often investigated, studies have yet to show childhood solitude as yielding any particular psychological benefits (Larson, 1990). Rather, by middle-childhood, playing in solitude has been seen by peers as deviant and by some psychologists as indicating insecurity (Rubin & Mills, 1988; Younger & Daniels, 1992). Not until preadolescence progresses into adolescence has solitude been shown to be experienced positively.

Among preadolescents and adolescents, ESM studies as well as questionnaire research have shown that adolescents are better equipped to handle solitude than are preadolescents. Specifically, Larson’s (1997) ESM studies showed that the solitude experiences of seventh through ninth graders had a positive effect on their subsequent emotional states, whereas the solitude experiences of fifth and sixth graders did not. Similarly, seventh through ninth graders who spent an intermediate amount of time alone showed better adjustment than did those who spent very little or very much time alone. However, this was not the case for the fifth and sixth graders. Extending these findings in a questionnaire study, Marcoen

and Goossens (1993) found that eleventh graders showed significantly more affinity for solitude than did ninth graders and seventh graders. Here, though they cautioned that this trend is nonlinear in some of their samples, these researchers concluded that affinity for solitude seems to increase as one approaches late adolescence.

As Larson (1997) noted, adolescents may experience solitude more positively than preadolescents because (1) they have developed advanced reasoning skills that allow them to make more constructive use of solitude, (2) their social environment is characterized by increased self-consciousness and conformity pressure, and (3) solitude provides a special opportunity to wrestle with pressing issues of identity formation. Despite their enhanced affinity for solitude, time spent alone is not necessarily pleasant for adolescents. They find solitude more lonely than do adults (Larson, 1990), and, probably due to their age group norm of going out with friends on weekend nights, they find spending Friday and Saturday nights alone to be especially lonely (Larson et al., 1982).

In adulthood, as compared to adolescence, the amount of time one spends in solitude appears to be as much a function of one's social circumstances as it is a voluntary decision. Larson et al. (1982) found that the amount of time adults spend in solitude is associated with their marital status, household size, age, and occupational level. Specifically, adults who were unmarried and had no children spent more time alone than did other adults. Also, adults who had semi-skilled jobs experienced more solitude than did adults in more skilled jobs. As people in semi-skilled jobs spent more time alone at home, at work, and in public than do people in more skilled jobs, the life structure of the skilled worker somehow seems to ensure more social contact than that of the semi-skilled worker. Although studies have shown that adults spend more time alone than do adolescents, research has yet to link adults' psychological well being with spending a regular amount of time in solitude (Larson, 1990).

In old age, people spend still more time alone than they did in adolescence and middle age (Larson, 1990; Larson, Zuzanek, & Mannell, 1985). However, aloneness is not necessarily experienced more negatively by older adults than it is by their younger counterparts. Despite the common stereotype of the lonely old person, increasing loneliness is not simply a function of age (Ernst & Cacioppo, 1999). Rather, loneliness is correlated with illness, immobility, and being unmarried, all of which become more and more likely as one ages (Ernst & Cacioppo, 1999; Larson, 1990). Apart from those risk factors, loneliness actually decreases as one ages (Ernst & Cacioppo, 1999). Developmental milestones of attachment and adolescence notwithstanding, it may be that the capacity to be alone is not fully realized until one has reached older adulthood.

These findings with respect to aging, loneliness, and solitude highlight a number of important challenges for research. It is not enough simply to demonstrate that the capacity to benefit from solitude increases with age. We also want to know how the capacity changes qualitatively; that is, how the types of benefits change

over the life span. According to stereotype, a shift might be expected from an emphasis on freedom and creativity among younger people to an emphasis on intimacy and spirituality among the elderly. However, stereotypes are notoriously misleading. Successful aging is often associated with increased emotional flexibility and a creative attitude toward life (cf., Carstensen, Isaacowitz, & Charles, 1999; Smith & van der Meer, 1997), which, in turn, would suggest that the benefits of solitude are more a function of personality and related variables than of age per se. As we saw in the previous section, however, research on individual differences in the capacity to benefit from solitude is still in its infancy.

DANGERS OF SOLITUDE

Among its potential benefits, solitude provides relief from the pressures involved in interacting with other people. This is a “negative” benefit, that is, a retreat from an unpleasant situation. If the retreat is motivated by social anxiety or depression, as it sometimes is, there is an obvious danger of exacerbating a pre-existing maladaptive condition. (Recall that Burger’s, 1995, Preference for Solitude Scale is moderately correlated with the trait of neuroticism.) Our concern in this review, however, has been with the “positive” benefits of solitude (e.g., creativity, spirituality) that even the most well-adjusted individual might seek. These positive benefits, too, are not without danger. Solitude can be addictive, as many a recluse and hermit might attest.

Regardless of the motivation for solitude, a decrease in immediate social interaction may lead to disengagement from the concerns of others. Therefore, one may posit that spending much time alone could foster ever-increasing disengagement and eventual chronic social withdrawal.

Barabasz’s (1991) study of the Antarctic research team seems to demonstrate the occurrence of such heightened withdrawal as a result of solitude. She found that individual team members would sometimes separate themselves from the others, moving their sleeping equipment to their workspaces and not being seen, except at meals, for up to three days. Team members in the field often elected to set up their one-person tents 20m or more apart from one another. Additionally, in interviews, team members made comments referring to absorption and withdrawal, such as, “After being weathered in, if he was reading a book you’d have to hit him to get his attention” and “The same thing happened to the other guys when reading, it was difficult to get one’s attention. They’d have to call my name two or three times” (p. 213). Though other research has described comparable processes of cognitive withdrawal as a response to conditions of crowding (e.g., Evans, Rhee, Forbes, Allen, & Lepore, 2000), this Antarctic research team was perhaps unlikely to have been feeling crowded: Rather, they were studied after they had spent a number of weeks maintaining an almost deserted research station while the majority of the station’s personnel left for the winter.

We do not wish to leave the impression that the tendency toward withdrawal observed by Barabasz (1991) is a dominant or permanent influence in the lives of Antarctic team members. Tracking a different group of Antarctic winter-over personnel, Oliver (1991) found that, as the season progressed, members became more self-sufficient, flexible, trusting, and open to intimacy. Oliver did observe some attentional difficulties and sleep disturbance; still, a majority of the personnel she studied described the winter-over stay as one of the best experiences in their lives and expressed interest in coming back for another winter.

Wintering over in Antarctica represents an extreme form of solitude, and the teams studied by Barabasz (1991) and Oliver (1991) comprised highly select groups of volunteers. Solitary confinement among prisoners is another extreme form of solitude, but with a very different population. Despite popular criticism of the practice, Suedfeld, Ramirez, Deaton, & Baker-Brown (1982) found that many prisoners actually considered solitary confinement a welcome respite from the constant demands and perils of the normal prison routine. The prisoners' complaints about solitary confinement were more likely to involve cold food than inadequate stimulation. Whatever one's opinion of solitary confinement and its potential misuse (e.g., as an adjunct to brainwashing), from a prisoner's perspective it may not always be the "cruel and unusual punishment" often depicted.

Turning to more mundane experiences of solitude, ESM studies indicate that the types of solitude encountered in everyday life can be associated with negative states of affairs, even when experienced positively at the moment. For instance, Larson et al. (1982) found that adults who felt in a more positive mood while alone than while with others tended to experience more negative moods across all situations. Likewise, feeling greater ease of concentration while alone was related to feeling more negative moods overall. Stated differently, when affect and attention improve markedly while alone, it may be a sign that a person's interactions with others are suffering. Contrariwise, Larson et al. (1982) found that the people who had the most positive average moods were those who reported feeling the worst while alone.

Findings like these make intuitive sense: Whereas decreased social demands may facilitate creativity and other positive benefits, many theorists argue that social contact helps us maintain our sense of reality and protect our consciousness from descending into chaos (e.g., Csikszentmihalyi, 1997; see Baumeister & Leary, 1995, for a brief review of other consequences of social disconnectedness.) However, other research reviewed by Larson (1990) failed to find any conclusive relation between the amount of time adults spent alone and psychological well being.

To summarize, although the data are often conflicting, solitude is not without its dangers, even when—or particularly when—the immediate benefits are experienced positively. That is, solitude can serve as an attractive contrast to distraction and anxiety for those finding it difficult to thrive in their particular social environments. However, save for an eremitic few and people suffering

from social anxiety, solitude does not appear to be habit-forming; for most individuals, its potential benefits far outweigh its dangers.

DISCUSSION AND CONCLUSION

The research and theory cited throughout this paper notwithstanding, one purpose of the present paper has been to underline a paradox: Solitude offers many advantages to the individual, and it has played a vital role in the history of societies; yet, social theorists have largely neglected solitude as a topic worth considering. There are at least two reasons for this neglect. First, to the extent that solitude connotes aloneness, it is treated as a nonsocial (and therefore somehow less important) phenomenon; second, to the extent that solitude has negative consequences, particularly loneliness, it is treated as pathogenic. Both views, we believe, are mistaken. Solitude may occur at the edges of society, but it has meaning only within a social context; moreover, its benefits, for the individual and society, may far outweigh harm of loneliness. We have sought to document both of these points in the present paper. Along the way, we have also suggested some theoretical interpretations of solitude. In this section, we bring together and add to those interpretations. We begin with a few observations related to conceptualizing solitude.

Solitude is best conceptualized as a state of relative social disengagement, usually characterized by decreased social inhibitions and increased freedom to choose one's mental and physical activities. Unlike the anonymous disinhibition of a large group of people (e.g., an angry or celebratory mob), solitude reduces the need for impression management without imposing a pattern of behavior to which one feels pressure to conform. Though solitude seems particularly suited to facilitate contemplation, spirituality, creativity, and even intimacy, it can be spent in many different types of activities. In contrast to loneliness, which by definition involves a negative emotional script, solitude is a more open-ended experience.

How, then, should theorists make sense of solitude? As this review has demonstrated, it is not a unitary experience. If we were to draw an analogy, it would be with time: Events are experienced *in* time, but time itself is not an experience. Similarly, events are experienced *in* solitude, but solitude itself is not an experience.

Focusing on situational or contextual variables, Larson et al. (1982) have described solitude as an "ecological niche" (p. 40). As a true ecological niche offers both opportunities and dangers, either of which may be realized depending on the characteristics of the particular creature who faces the task of thriving there, so situations of solitude present possible benefits and detriments, either of which may be realized depending on the characteristics of the person who faces the task of thriving there. As discussed earlier, to make best use of solitude, a person must have achieved certain age-related capabilities, chief among them

being (a) the successful negotiation of attachment processes in infancy, (b) the development of advanced reasoning skills, and (c) the development of the propensity for reflexive thought, as influenced by previous social interactions. Likewise, according to personality research mentioned earlier, the person who evidences a stable preference for occasional solitude, and who is open to new emotional experiences, is poised to enjoy the benefits of solitude.

Of course, these developmental and personal characteristics do not in themselves determine the quality of particular solitude experiences. Rather, the solitude niche is captured most fully in the interaction of these characteristics with the attributes of a specific solitary setting. When in a situation of reduced social stimulation, the person whose characteristics facilitate feelings of comfort and control over his or her particular surroundings is more likely to find solitude rewarding than is the person prone to feel at the mercy of that specific environment. To be sure, the relative importance of personal characteristics versus environmental characteristics depends upon the context: Many famous solitaries have mastered bleak and difficult physical environments, and countless experiences of loneliness occur daily in mundane settings.

A thorough understanding of solitude will have to take into account not only situational and individual variables, but also the biological and social history that makes solitude an important part of human life. With regard to our biological (evolutionary) past, group living is one of the major adaptations of the human species—indeed, of most primate species. Group living confers many advantages and, not surprisingly, has been the object of much research and theorizing (as illustrated, for example, by the recent *Handbook of Attachment*, Cassidy & Shaver, 1999). But solitude, too, has its advantages, although these have been virtually ignored by sociobiologically oriented theorists. For example, although the group provides protection from predators, it makes concealment difficult and hence predation easier; and, although the group allows the location of resources, it also facilitates their more rapid depletion. Moreover, group living can itself be a source of stress in its own right (e.g., as members vie for a place in a dominance hierarchy). The list could be expanded indefinitely. Biological adaptations typically involve compromise among competing needs. Group living is no exception. Not surprisingly, then, species differ in the balance they reach between social and solitary modes of existence (e.g., among the great apes, orangutans are more solitary than chimpanzees). The important point is that the need for sociality and for solitude probably co-evolved—sometimes in conflict (as when solitude leads to feelings of loneliness) but sometimes complementing one another (as when solitude leads to feelings of intimacy).

Differences between species could not arise were it not for differences among individuals within a species; that is, some individuals (whether, for example, orangutans or chimpanzees) have a greater preference for, or tolerance of, solitude than do others. Similar considerations undoubtedly apply to human beings: Biology has provided a need or preference for solitude, and some of us need or

prefer more solitude than do others. Be that as it may, the benefits of solitude reviewed earlier, such as creativity and spirituality, presume capacities (e.g., for symbolic thought) not found among other primates. We must therefore turn to factors other than biology to explain human solitude. Chief among these is society. Put differently, the solitude encouraged by some societies, and pursued by some individuals, exceeds anything that can be explained in terms of individual reproduction, kin selection, reciprocal altruism, and related biological mechanisms.

Humans are capable of “ultrasociality” (Campbell’s, 1983, phrase); it is matched only by the social insects—although the evolutionary route to human ultrasociality is far different than that traversed by insect societies. Extending Campbell’s line of analysis, we could say that human beings are also capable of “ultrasolitude,” and that this capability is primarily a product of social, not biological, evolution.

Societies differ in the extent to which they encourage solitude; however, systematic analyses of such societal differences are lacking. One potential distinction that might at first seem relevant is that between collectivist and individualistic societies (Triandis, 2001). Superficially, it might be assumed that individualistic societies would encourage (or at least tolerate) solitude more readily than would collectivist societies. We know of no evidence to suggest that such an assumption is generally true; on the contrary, anecdotal accounts suggest that collectivist societies (e.g., East Asian) prize and encourage solitude as much as do individualistic (e.g., Western) societies. To take but one illustration, Buddhism has a long tradition of monastic life—beginning with the Buddha himself.

Societies may also institutionalize a solitary life, as in the case of monasticism, for a variety of reasons. Monastics—East and West—may perpetuate cultural traditions through examples of sacrifice and spiritual devotion, as well as by more substantive accomplishments, such as scholarly pursuits. Institutionalized solitude may also serve as a social defense mechanism, for example, by accommodating the needs of individuals who do not “fit” within the confines of normal society (Spiro, 1965). For reasons such as these, we postulate that the degree to which a society encourages solitude will be independent of the degree to which its cultural orientation is individualist or collectivist.

The institutionalization of solitude is a topic of considerable interest in its own right. Our concern in this paper, however, has been with the role that solitude plays in the everyday lives of ordinary people. Among the benefits we have discussed are the freedom to engage in intrinsically motivated activities, creativity (including self-transformation), intimacy, and spirituality. To explain all the varied psychological benefits of solitude, no single mechanism is sufficient. However, if we were to choose one mechanism from those we have discussed, it would be the opportunity that solitude provides for a loosening and subsequent reconstitution of cognitive structures. Without input from interaction with others, people are more free to construct and transition among multiple cognitive “realities,” similar to those described by Schutz (1945). However, solitude is unlikely

to be equally nourishing for all individuals. After all, cognitive transformations can be threatening rather than liberating. At the very least, in order to benefit from solitude, the individual must be able to draw on inner resources to find meaning in a situation in which external supports are lacking. This perhaps explains why many people, when alone, engage in distracting rather than productive activities (Long, 2000).

Regardless of the mechanisms underlying its benefits, solitude would seem to present a practical problem. If we take popular literature as our guide, many people desire more solitude than they have. On the other hand, if Storr's (1989) analysis is correct, people in modern industrialized Western societies may have lost the capacity to use constructively the freedom that being alone affords. In a similar vein, Suedfeld (1982) has contended that solitude can be particularly stressful for members of technologically advanced societies, who have been trained to believe that aloneness is to be avoided and who therefore are relatively unprepared for its effects.

The point may be well taken; however, an experience of unease when alone is hardly limited to technologically advanced societies. For example, Fiske (2002) notes that people in many West African cultures have a strong sense of privacy when it comes to revealing personal affairs, yet they "have no desire to work, eat, relax, or sleep alone and they often invite a companion to come along and stay in the vicinity when they go off into the bushes to urinate or defecate" (p. 83).

The observation that people claim to want more solitude and yet often experience solitude negatively is not as contradictory as it might seem. People often idealize conditions that, if realized, they would find intolerable. But despite potential difficulties associated with solitude, the research and theory reviewed in this article suggest that achieving a capacity for positive solitude is a desirable goal. While personality characteristics (e.g., openness to novel emotions) and developmental milestones (e.g., attachment capabilities, identity-related achievements) bolster one's chances to make use of time spent alone, one's construal of the solitude experience and one's "internal conversations" surely make a difference as well. In an environment of decreased social input, one's inner life (e.g., one's memories, interests, self-related beliefs) will reach its maximum responsibility for the content of one's immediate experience. If the solitary person is able to rely upon her or his beliefs to maintain sufficient feelings of control as well as security in her or his connection to society, then she or he can use the freedom of solitude for any of a range of potentially beneficial purposes. However, if the person's solitude-related beliefs and memories result in anxiety with respect to lack of volition or to social disconnection, then she or he will likely retreat into loneliness or, if available, into the sociality (or pseudo-sociality) of mass media or communication technology.

In his meditation on solitude, Thoreau (1854/1981) wrote that he had three chairs in his little house at Walden Pond: "One for solitude, two for friendship, and three for society" (p. 208). Many researchers and theorists have devoted

their energies to developing compelling analyses of the processes involved when the second or third chairs are occupied. But as the present review has demonstrated, much fascinating work remains for researchers and theorists who seek to understand the factors involved when only the first chair is in use.

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