SOCIAL CRISIS AND INDIVIDUAL GROWTH: The Long-Term Effects of the Great Depression

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ABSTRACT: This longitudinal study examines the effects of the Great Depression on the social and psychological development of 81 white women and 39 white men from Berkeley, California, born around the turn of the century. Analyses showed that respondents who were classified as relatively wise in old age (in 1968/69) were as likely to experience economic hardship during the Great Depression as those considered low on wisdom in their later years. However, wise older men and women who suffered from economic deprivation during the Depression years became on average psychologically more healthy between 1930 and 1944. By contrast, psychological health scores of elders with relatively low wisdom scores who went through similar Depression hardship experiences tended to decline during the same time period. Since wisdom and psychological health are empirically and theoretically related, these results add support to the claim that wisdom may be acquired through the successful resolution of crises and hardship.

The last decade has seen a renewed interest in research on wisdom and old age (Assmann 1994; Sternberg 1990). One reason for this may be that wisdom is one of the few personal strengths that is believed to increase rather than decline with age, given the proper conditions (Baltes and Smith 1990; Holliday and Chandler 1986; Kekes 1983). Furthermore, wisdom in old age seems to be strongly related to psychological well-being, independent of the objective circumstances that elders encounter (Ardelt 1997; Baltes, Smith, and

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Staudinger 1992; Bianchi 1994; Clayton 1982; Thomas 1991). Apparently, wisdom and wisdom-related knowledge enable elderly persons to compensate for mental, social, and physical decline and help them to cope with the inevitable losses of old age (Assmann 1994; Baltes 1993).

Wise individuals seem to be able to accept their present and past life without any major regrets and to be satisfied with what they have accomplished (Thomas 1991; Wrightsman 1988). Instead of despairing over their impending death and missed opportunities of the past, wise elders feel integrated into the natural flow of life through the succession of generations (Erikson 1982, 1980, 1964; Erikson, Erikson, and Kivnick 1986). In the words of Margaret Kuhn, founder of the Gray Panthers, they are the elders of the tribe: “We’re not concerned about our own interests, but about the tribe’s survival and well-being” (Bianchi 1994, p. 101). It is in this sense that wisdom can be interpreted as “... detached concern with life itself in the face of death itself” (Erikson 1964, p. 133).

But how and under which circumstances does wisdom develop? This study examines one of many developmental pathways to wisdom in old age: social change as an opportunity for personal growth. 120 participants of the longitudinal Berkeley Guidance Study who were born around the turn of the century were classified as relatively high or low on wisdom in their later years based on a combination of their cognitive, reflective and affective personality characteristics. Data collection for the Berkeley Guidance Study began in 1928/29, continued every year until 1945, and resumed in 1968/69. Sample members with high wisdom scores in old age are compared to those elders low on wisdom with regard to the social and psychological changes they went through in early and middle adulthood, particularly after the years of the Great Depression.

Wisdom in old age is defined and operationalized as an integration of cognitive, reflective, and affective components (Ardelt 1997; Clayton and Birren 1980; Kramer 1990). It is measured in 1968/69 when the men and women in this study were between fifty-eight and eighty-two years of age.

If one requirement of wisdom is the unconditional acceptance of one’s life course, one might argue that only individuals who had a successful and rewarding life and were spared from major crises and hardship can achieve wisdom in old age. However, if this were true, wisdom would be as unattainable as a life without any adversity. The secret of wisdom is less likely to lie in what one experiences during one’s life than in how one deals with these events (Holliday and Chandler 1986). It is hypothesized that older people with a relatively high degree of wisdom managed to grow psychologically through crises and hardship at earlier points in their life while elders with a low degree of wisdom failed to benefit from these events.

THE PATH TO WISDOM

A number of studies suggest that people who successfully overcome crises and obstacles in their lives and use these negative experiences as an opportunity for further growth and development are more likely to acquire higher levels of wisdom (Bianchi 1994; Clayton and Birren 1980; Giesen and Datan 1980; Park, Cohen, and Murch 1996). By contrast, individuals who are easily defeated by crises and hardship and tend to blame unfavorable circumstances rather than their way of approaching these events for the difficulties they
encounter are unlikely to gain anything through a crisis. This means that for some people negative experiences may have the positive effect of stimulating the growth of wisdom (Taranto 1989), whereas for others those same events may be devastating to their future life course (Allport 1961; Bianchi 1994). According to Elder (1991, p. 14), hardship experiences can be understood as a "form of apprenticeship... in learning to cope with the inevitable losses of old age."

A social crisis, such as an economic recession or a war, can be viewed as a natural experiment (Elder 1974). In contrast to personal crises, social crises affect many people simultaneously. But not everybody's life is disrupted by a social crisis in the same way, resulting in naturally occurring experimental and control groups.

The negative economic consequences of the Great Depression were most strongly felt at the beginning of 1933 (Elder 1974). By that time, employment in American manufacturing industries had shrunk to 55% of its labor force in 1926 (54% in California). A study performed "... at the University of California estimated that approximately one-third of the normally employed in the United States were unemployed in 1933. By the latter part of 1934, nearly a fourth of this group was still unemployed" (Elder 1974, pp. 18-19). In California, the unemployment rate was around 30% in 1932.

Another indication of the economic collapse resulting from the Great Depression is the decline in median family income from 1929 to 1933. Although exact statistics on family income were not collected prior to 1935, according to rough estimates the median family income in the U.S. decreased from $2300 in 1929 to $1500 in 1933, which represents an average reduction in income by 35% (Elder 1974). This decline is comparable to the income loss experienced by the men and women in the longitudinal Berkeley Guidance Study. For those 64 women and 34 men in the longitudinal study for which income data is available at both points in time, the median family income was $2740 and $2800, respectively, in 1929 and $1830 and $2080, respectively, in 1933. This means that the women in the sample experienced a drop in family income by 33% and the men by 26%. Although the "survivors" in the longitudinal study had a median family income that was higher than for the nation as a whole or even the original sample whose figures are very close to the U.S. average ($2400 in 1929 and $1620 in 1933), they suffered comparable losses in their income between the years 1929 and 1933.

By contrast, the unemployment rate of the men or husbands of the sample women seems to be lower than for the rest of the nation or California. "Only" 19% of the men in the original sample and 18% of the men/husbands in the longitudinal sample were unemployed between 1930 and 1935. Even though we do not have any data on the unemployment rate of the women in the sample which may increase the number slightly, the figures suggest that the sample men who were at the prime of their lives during this time may have had a certain advantage in the labor market compared to very young or older workers.

In their research, Caspi and Elder (1986) also examined the long-term effects of the Great Depression on the lives of the women from the Berkeley Guidance Study. They found that for middle-class women in 1930, the experience of Depression hardship during the 1930s tended to have a positive impact on their psychological well-being almost 40 years later, in 1968/69. Even though Caspi and Elder controlled for the intellectual ability and emotional health of these women in 1930 as well as for their social involvement in old age, on the average, middle-class women who had to endure economic deprivation during
the Depression years scored higher on the Life Satisfaction Rating (LSR) scale (Neugarten, Havighurst, and Tobin 1961) in 1968/69 than their more "fortunate" counterparts.

Working class women, on the other hand, did not benefit from hardship experiences. Those who were affected by the Great Depression were more likely to be less satisfied with their lives in old age than those who were spared, holding constant intellectual ability and emotional health in young adulthood and social involvement in old age.

One possible explanation for the positive influence of economic deprivation during middle adulthood on emotional well-being of elderly women from the middle class might be found in their entry into the labor market during the Depression years. According to Caspi and Elder (1986), 41% of middle class women from deprived homes were part of the paid labor force in the later 1930s (1936–1939) compared to only 10% of the middle class women from non-deprived families. By contrast, non-deprived lower status women were almost as likely to work as their deprived counterparts (43% vs. 49%). While for many higher class women Depression hardship resulted in a profound change in their social roles by entering the paid labor force, the same experience merely increased already existing economic pressure for working class women.

Apparently, the necessity to supplement their family income provided an opportunity for many middle-class women to broaden their horizon and to become more autonomous from their husbands and from the traditional social role as a housewife. This experience together with their newly gained skills apparently increased not only their confidence and self-esteem but also gave a new meaning to their lives. In contrast to women from the working class, middle class women probably had a higher chance to find better paying and interesting jobs that were not only a source of additional family income but also one of personal satisfaction. Caspi and Elder (1986, p. 23) conclude:

Middle-class women's entry into the Depression labor market represents one indication of their resourcefulness at the time, and perhaps in subsequent crises that called for independence, initiative, and managerial skills. It is possible that the intellectual skills, self-confidence, and autonomy of these women were further bolstered by challenging jobs and work settings . . . [These jobs] . . . placed women on their own and provided skills that may have fostered successful aging.

But working-class women are not necessarily excluded from psychological growth. Giesen and Datan (1980) investigated the competence of older working-class women (age 43 to 68) in a rural community in West-Virginia. As children, all nine women in this qualitative study were required to support their families by performing various household chores and as adults, they had to supplement their husbands’ income in addition to being a homemaker and a mother. The successful accomplishment of these tasks gave them a sense of competence that did not vanish or decline with age. On the contrary, most of them believed “. . . that they were now more able to deal effectively with their lives than previously. [They] . . . believed that they had increased their abilities to cope with and solve problems, and in addition, had acquired other qualities such as patience, consideration, and reflectiveness” (Giesen and Datan 1980, p. 63). The women attributed these skills to the fact that they had grown wiser over the years by learning from problems and everyday experiences.

One woman reported that 'I can understand a lot of things better now than I could when I was younger . . . life in general is easier to see’ while another woman said, ‘I think you
learn to think things through, you know, before you jump to a conclusion,' and still
another woman stated that, 'after you get a few years older, you get a few years wiser.
. . . I mean I stop and think more . . . where years back I might just fly to pieces . . . . I
think after you get a little older you get more sense' (Giesen and Datan 1980, pp. 63–64).

Bianchi (1994, p. 6) who interviewed over 100 “creative” older people observes that
these elders “. . . are grateful not only for the benefits of the past, but also for the lessons
they learned through hardships.” They learned to accept both the positive as well as the
negative aspects of life which made them more patient, humble, tolerant, understanding,
and compassionate toward others. Moreover, negative experiences prompted them “. . . to
look deeper for the truth of things” (Bianchi 1994, p. 145) and to gain “. . . insights into
human needs and motivations” (p. 151).

The above research indicates that hardship experiences are a likely source (although nei-
ther necessary nor sufficient) for the development of wisdom. During a crisis, routines or
habits are often ineffective. The normal world is disrupted and adaptations are required to
move on with one’s life (Bianchi 1994; Kobasa 1979; Park, Cohen, and Murch 1996). But
not all people interpret or react to a crisis in the same way (Frankl 1963; Lowenthal and
Chiriboga 1973). Some are able to perceive it as a challenge for personal growth, as an
opportunity to reflect upon and reevaluate one’s priorities in life, and to make the appro-
priate changes that ensure a more meaningful and satisfactory life (Bianchi 1994; Lehr 1978;
Marris 1986; Park, Cohen, and Murch 1996; Taylor 1983). Others dwell on their misfor-
tune and unhappiness and refuse to question their way of living. Thus, a crisis can either
result in psychological growth or psychological deterioration (Bianchi 1994; Allport
1961). People who are unable to learn the appropriate lesson from these events are likely
to feel defeated and weakened through the encounter of hardship whereas those who do
may come out stronger and wiser than before. They may have an enhanced feeling of mas-
tery which may make it easier for them to handle future crises, such as the physical and
emotional losses of old age.

DEFINITION OF WISDOM

Although the concept of wisdom has been used to describe the psychologically and spiri-
tually advanced members of societies for more than 2000 years (Clayton and Birren 1980),
its definition is anything but clear (Dittmann-Kohli and Baltes 1990; Kramer 1990; Taranto
1989). Modern researchers of human development who have rediscovered the analytic
value of this ancient but neglected concept (Chandler and Holliday 1990) emphasize dif-
ferent aspects of wisdom, depending on their own scientific background.

For example, Paul Baltes and colleagues at the Max Planck Institute of Human Develop-
ment in Berlin (e.g., Baltes and Smith 1990; Baltes et al. 1990) who are among the most
influential wisdom researchers define wisdom as “a form of advanced cognitive function-
ing” (Dittmann-Kohli and Baltes 1990, p. 54) and “expert knowledge in the domain, fun-
damental pragmatics of life” (Smith and Baltes 1990, p. 501). Others perceive wisdom as
the art of questioning (Arlin 1990) or the awareness of ignorance (Meacham 1990). Achens-
baum and Orwoll (1991) have constructed an elaborate two-dimensional model that covers
the intrapersonal, interpersonal, and transpersonal aspects of wisdom within the domains of personality, cognition, and conation.

This study follows the approach by Clayton and Birren (1980) who define wisdom as an integration of cognitive, reflective, and affective qualities based on a multidimensional scaling analysis of 12 wisdom attributes. All three components have to be simultaneously present for a person to be considered wise. This basic characterization of wisdom seems to be compatible with most modern as well as ancient descriptions of this concept (Manheimer 1992; Sternberg 1990) and has the additional advantage of being relatively parsimonious.

The *cognitive component* of wisdom refers to the ability to perceive reality as it is without any distortions (Ilart 1987). A wise person does not merely know certain facts but understands the personal significance and deeper meaning of phenomena and events (Assmann 1994; Chandler and Holliday 1990; Kekes 1983). Hence, the acquisition of wisdom requires specific cognitive skills such as objectivity, concentration, and the ability to intellectually understand and logically analyze phenomena and events.

But a thorough comprehension of life is only possible through reflection, particularly self-reflection. The *reflective component* focuses on one's ability to look at phenomena and events from different perspectives to obtain a broader view of the issues involved and to avoid self-serving attribution biases, i.e., the tendency to contribute successes to one's abilities and to blame failures on other people or circumstances (Bradley 1978; Green and Gross 1979; Riess, Rosenfeld, Melburg, and Tedeschi 1981; Sherwood 1981). This practice will gradually lead to the transcendence of one's subjectivity and projections which are the major obstacles in the discovery of a deeper, more objective truth (Chandler and Holliday 1990; Clayton 1982; Csikszentmihalyi and Rathunde 1990; Dittmann-Kohli and Baltes 1990; Kramer 1990; Orwoll and Achenbaum 1993; Taranto 1989).

Being able to reflect on one's behavior and becoming aware of one's projections is a dialectical process. On the one hand, one can only perceive one's subjectivity through reflective thinking. But on the other hand, reflective thinking is not possible as long as one is totally unaware of one's tendency to interpret the world only in reference to one's own person, i.e. one's fears, passions, and desires. However, reflective thinking is likely to emerge once one becomes aware of one's self-centeredness and subjectivity. This, in turn, will reveal other projections which will strengthen one's reflective thinking, and so forth.

The question remains how one becomes aware of one's projections in the first place. Kramer (1990) posits that crises and obstacles in one's life have the potential to produce this effect. Very often, crises and conflicts can only be solved and obstacles only be removed after one looks at the problem from a different point of view. This change in perception makes one aware of one's projections and fosters reflective thinking. The resolution of crises, conflicts, and obstacles is often accompanied by a reduction or even elimination of certain projections which diminishes one's self-centeredness and results in a more mature and integrated personality (Kramer 1990).

The *affective component* of wisdom is defined as the expression of sympathy and compassion for others. The combination of reduced self-centeredness and increased insight into one's own and others' motives and behavior is likely to make individuals more caring, empathic, and compassionate towards people in general (Csikszentmihalyi and Rathunde 1990; Pascual-Leone 1990).
The search for wisdom and, hence, human development is a never ending process (Assmann 1994) since the complete transcendence of one's subjectivity and projections is rarely achieved. But the development of wisdom at an earlier life stage is likely to facilitate the acquisition of deeper wisdom at a later period of life (cf., Heath 1991). By contrast, if people do not give up their ego-centered views early in life, the acquisition of wisdom may be very difficult at later life stages. Possible exceptions may be initiated through the experience of a major crisis that forces the individual to restructure his or her life as a whole (Bourque and Back 1985; Kobasa 1979; Marris 1986) and thereby offers a new chance for wisdom to emerge (Park, Cohen, and Murch 1996).

**HYPOTHESES**

The study tests the following two hypotheses:

1. People who score high on wisdom in old age were as much affected by economic hardship during the Great Depression as elders who score relatively low on wisdom. It is not expected that wise older people lived a sheltered live. They were as likely to experience crises and obstacles in their lives as the relatively low wisdom group.

2. Individuals who were categorized as relatively wise in old age were better able to overcome the negative consequences of the Great Depression (such as persistent economic deprivation, unemployment, demotion, and a decline in social status and psychological health) and more likely to grow psychologically through economic hardship than people with low wisdom scores in their later years.

People who become more reflective through crises and hardship tend to reduce their self-centeredness and to overcome certain projections. The transcendence of their subjectivity and projections, in turn, enables them to see reality more objectively and, therefore, act in accordance with the requirements of the situation instead of re-acting to the situation as a result of their projections and impulses (Hart 1987). Thus, the wiser people become, the easier it will be for them to deal with crises and obstacles in an effective way because their actions will not be tainted by fears, passions, or desires.

By contrast, a low wisdom score in old age signifies that the person is unable to accept reality and does not express sympathy and compassion for others. These characteristics may be the result of unresolved crises earlier in life. According to Erikson (1982, 1980, 1964), the virtues of the last stages of life, care and wisdom, can only be achieved after all previous psychosocial crises are resolved. A social crisis, such as the Great Depression, may make the mastery of those developmental tasks even more challenging or may even jeopardize the successful resolution of earlier tasks, such as the crises of industry vs. inferiority and identity vs. identity confusion. Hence, an inability to come to terms with the negative consequences of a social crisis may lead to a reversal in psychosocial growth and a deterioration in psychological health.
METHOD

Sample

Originally, the sample consisted of every third white family in Berkeley, California, who experienced the birth of a child between January 1928 and June 1929, a total of 248 married couples (Eichom 1981). Researchers at the Institute of Human Development in Berkeley conducted semi-structured interviews with the respondents at the beginning of the study between 1928 and 1931, periodically during the following 18 years, and again in 1968/69 when the remaining 81 women and 39 men were between fifty-eight and eighty-two years of age (Maas and Kuypers 1974; Macfarlane 1966). 122 of the original sample families were control cases for which data collection was less extensive. Because of this, almost half of the cases are missing for some of the variables in the present study.

The death of a former participant was the major reason for sample attrition in the forty-year follow-up study. Of the 175 families who remained on the Guidance Study roster in 1968, 34 women and 58 men had died, 19 couples declined to participate, 7 could not be located, 16 moved out of the area, and 18 women and 21 men could not be interviewed for a variety of other reasons.

As can be expected, the "surviving" sample members in 1968/69 were a privileged group with regard to health, financial situation, and socioeconomic status compared to the original sample in 1930/31. In addition, Maas and Kuypers (1974) decided to exclude the few widowers from the 1968/69 sample out of methodological reasons which means that all men in this study are married to a sample woman for a period of over 40 years. As a consequence, male and female cases are not independent of each other and, therefore, are analyzed separately. Although the resulting subsets are relatively small, this procedure adds confidence to those outcomes that are supported by the analysis of both subsamples.

Procedure

The initial purpose of the Guidance Study was to follow the development of a representative group of children born in 1928/29 in Berkeley, California. Shortly after the birth of the study child, an interviewer visited the families to inquire about their socioeconomic background (Macfarlane 1966). The topics covered included biographical data of each member of the household, education and occupation of the respondent and his or her spouse, use of leisure time, income, investments, and expenses, and detailed information about the house the family lived in. The interview took at least two hours. After the initial assessment, socioeconomic data were rechecked each year (Eichorn 1981).

When the study child was 21 months old, the parents were interviewed about habits and behavior of the study child, their discipline techniques, and their family background (education, finances, occupation, physical surroundings, health, marital adjustment, parental similarities and dissimilarities in background and personality, etc.; Macfarlane 1966). The minimum time required to obtain a complete history of the family was three hours. Similar interviews were conducted each year until the study child's eighteenth birthday.

In 1968/69, the remaining 120 parents were interviewed about various areas of living, such as "... home and neighborhood, work and retirement and leisure activities, parenting, grandparenting, brothers and sisters (family of origin), marriage, friendship, formal organizational memberships (including church and citizenship roles in the political arena),..."
health, death, and perspectives on past life called ‘life review’” (Maas and Kuypers 1974, pp. 9–10). These conversations took about four hours during which the clinically experienced interviewers made inferences about the respondents’ salient personality characteristics and their ability to cope with the aging process. The transcripts of the interviews were then rated independently by at least two qualified clinicians (different from the interviewers) who first practiced on training cases from pilot interviews. “Only after interrater agreement was reached on the meanings of particular items and on test cases were the parent cases subject to their final rating procedures” (Maas and Kuypers 1974, p. 219).

**Measurement**

All variables used in this study are based on the semi-structured interviews conducted between 1928/29 and 1968/69 which were rated by clinically trained coders (Maas and Kuypers 1974; Macfarlane 1966).

**WISDOM IN OLD AGE**

Based on an earlier study by Clayton and Birren (1980), wisdom in old age is measured as the average of cognitive, reflective, and affective indices derived from the 1968/69 interviews. The items that are used to construct these indices stem from Haan’s (1969) Ego Ratings and the California Q-sort deck (Block 1971).

The Ego Ratings assess how people react to life events while the Q-sort ratings are designed to describe a person’s typical behavioral and personality characteristics. The Ego Ratings are measured on a scale ranging from 1 (minimal or absent) to 5 (strongly present or high) and the Q-sort ratings on a scale from 1 (most uncharacteristic of the person) to 9 (most characteristic of the person). For the purpose of this study, all Q-sort items are transformed into scores ranging from 1 to 5 to make them compatible to the Ego Ratings.

The items that were used to construct the three dimensions of wisdom are listed in Table 1. The **cognitive** component of wisdom is measured as the simple average of four items from the Ego Rating scale (objectivity, intellectuality, logical analysis, and concentration) and one item from the Q-sort (Is able to see to the heart of important problems.). Three Ego Rating items (e.g., tolerance of ambiguity) and six Q-sort items (e.g., Has insights into own motives and behavior.) are averaged to compute the **reflective** indicator of wisdom. Finally, the mean of one Ego Rating item (empathy) and ten Q-sort items (e.g., Has warmth; is compassionate.) represents the **affective** element of wisdom. Cronbach’s alpha for the 69 women (35 men) for which complete information on all the items is available is .88 (.85) for the cognitive, .86 (.86) for the reflective, and .93 (.92) for the affective component of wisdom. To avoid the loss of almost 16% of all female and over 10% of all male cases in the sample, the constructed indices are the average of all non-missing items for the respondents.

Confirmatory factor analyses in LISREL VII (Bollen 1989; Jöreskog and Sörbom 1988) corroborate that the three components can be regarded as effect indicators of the latent variable wisdom. The construct validity of this measure is reported elsewhere (Ardelt 1997). As can be expected from the previous theoretical discussion, wisdom was highly related to life satisfaction in old age but, unlike life satisfaction, uncorrelated with indicators of objective life conditions, such as physical health, socioeconomic status, financial situation, physical environment, and social involvement. This means that relatively wise people were
TABLE 1
Measures of the Three Components of Wisdom*

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<th>Components of Wisdom</th>
<th>Source</th>
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| Cognitive Component  | Ego Ratings | • Objectivity  
|                      |          | • Intellectuality  
|                      |          | • Logical Analysis  
|                      |          | • Concentration  
|                      | Q-Sort   | • Is Able to See to the Heart of Important Problems.  
| Reflective Component | Ego Ratings | • Tolerance of Ambiguity  
|                      |          | • No Denial  
|                      |          | • No Projection  
|                      | Q-Sort   | • Is Introspective.  
|                      |          | • Has Insight into Own Motives and Behavior.  
|                      |          | • Is Not Thin-Skinned; Not Vulnerable to Anything That Can be Construed as Criticism or an Interpersonal Slight.  
|                      |          | • Is Not Extrapunitive; Does Not Tend to Transfer or Project Blame.  
|                      |          | • Does Not Tend to Project His Own Feelings and Motivations onto Others.  
|                      |          | • Does Not Feel Cheated and Victimized by Life.  
| Affective Component  | Ego Ratings | • Empathy  
|                      |          | • Behaves in a Giving Way Toward Others.  
|                      |          | • Behaves in a Sympathetic or Considerate Manner.  
|                      |          | • Tends to Arouse Liking and Acceptance in People.  
|                      |          | • Has Warmth; is Compassionate.  
|                      |          | • Appears Straightforward, Forthright, Candid in Dealings With Others.  
|                      |          | • Is Not Negativistic; Does Not Tend to Undermine and Obstruct or Sabotage.  
|                      |          | • Is Not Guileful and Deceitful, Manipulative, Opportunistic.  
|                      |          | • Has No Hostility Toward Others.  
|                      |          | • Is Basically Not Distrustful of People in General; Does Not Question Their Motivations.  
|                      |          | • Does Not Create and Exploit Dependency in People.  

Note: * Based on Ardelt (1997), Table 1.

not more likely to encounter superior objective circumstances in old age than elders who scored low on wisdom.

The arithmetic average of the three indicators correlates very highly with the factor score estimates of the latent variable wisdom (Bollen 1989) with a Pearson's r of .99 for the women and .88 for the men. To maintain the original scale and to give equal weights to the three indicators, wisdom in old age is measured as the simple average of the cognitive, reflective, and affective indices (not the individual items) rather than as a latent variable. Cronbach's alpha for this construct is .87 for the women and .83 for the men. To form high and low wisdom groups wisdom in old age is divided at the midpoint of its scale. A wisdom score of 3 or above is considered high, a score below 3 is defined as low.
Since we do not know how high a person needs to score to be judged as "wise" by an outside observer, the division of the groups at the midpoint of the wisdom scale is arbitrary. However, one justification for this decision is that individuals whose average ratings indicate that cognitive, reflective, and affective qualities are not present or are not characteristic of the person should not belong to the high wisdom group.

**SOCIAL CHARACTERISTICS**

The Hollingshead Social Class Index is used to measure the family social class score and social class in 1929, 1939, and 1945. The variable *family social class score* is created as the sum of the weighted categories of the Hollingshead Education Scale (multiplied by 4 with a score of 1 = professional training to 7 = under seven years of school) and Occupation Scale (multiplied by 7 with a score of 1 = higher executives, proprietors of large concerns and major professionals to 7 = unskilled employees) of the head of household. The final score is subtracted from 77, the maximum score, so that higher values indicate a higher social class position. *Social class* is a dichotomous variable. Families with a minimum score of 34 are labeled "1 = middle class and above," all others "0 = working class."

*Experience of economic deprivation* is also a dichotomous variable. Families that lost 35% or more of their income between 1929 and 1935 were classified as economically deprived, all others as non-deprived (Caspi and Elder 1986). *Absolute change in yearly income between 1929 and lowest year* is measured in dollars. *Persistent economic deprivation* is another dichotomous variable. A score of 1 means that the respondent's total family income in 1929 was $1200 or less and remained at this level through 1939.

The *number of years women worked* is computed for 1930–1935, 1936–1939, and 1940–1945. Women's *average occupational position* for these time periods are assessed through the reversed unweighted mean scores of the Hollingshead Occupational Scale.

Complimentary to women's employment, the *number of years men were unemployed* is calculated for the period of 1930–1935 and 1936–1939. Men's *job mobility* is measured on a scale ranging from 1 (two or more levels down) to 5 (two or more levels up) and men's *progression in worklife between 1929 and 1945* on a scale from 1 (decline) to 3 (progression).

**PSYCHOLOGICAL CHARACTERISTICS**

*Marital quality* in 1930/31 is computed as the simple average of five items measured on a 5-point scale: marital adjustment (1 = extreme conflict; 5 = exceptionally happy adjustment), closeness of relationship husband to wife and wife to husband, (1 = no attachment or interest; 5 = extremely close relationship) and friendliness of husband to wife and wife to husband (1 = extreme hostility or distrust; 5 = exceptionally friendly).

*Psychological health* in 1930–1931, 1933–1935, 1936–1938, 1939–1941, and 1942–1944 is assessed as the simple average of three 5-point items: nervous stability (1 = personality that interferes with social functioning, psychotic episodes or equivalents; 5 = markedly above average), absence of irritability (1 = very quickly irritable or explosive; 5 = extremely even-tempered, never irritable), and not tense or worrisome (1 = extremely worrisome, agitated; 5 = relaxed, passive or indifferent). For each item, the mean of the yearly ratings for the above time periods is taken to keep the loss of cases at a minimum (Elder, Liker, and Jaworski 1984).
The high and low wisdom groups are first compared with respect to various social and psychological characteristics of the respondents at the beginning of the study in 1928/29 and up to the year 1945, bridging the years of the Great Depression. The variables are selected to test the hypothesis that the high wisdom group in 1968/69 was as much affected by economic hardship experiences during the Great Depression as the low wisdom group. However, as stated in Hypothesis II, it is expected that individuals who were categorized as relatively wise in old age were more likely to grow psychologically through these hardship experiences and were more successful in overcoming the negative consequences of the Great Depression (such as persistent economic deprivation, unemployment, demotion, and a decline in social status and psychological health) than people who scored low on wisdom in their later years.

Approximately two thirds of the respondents have scores above the midpoint of the wisdom scale (50 of the 81 women and 27 of the 39 men). This result may reflect a positive selection bias. Sample attrition was especially high for original participants with poorer health and lower socioeconomic status and the main cause for non-participation in the forty-year follow-up study was the death of a sample member (Maas and Kuypers). Hence, the surviving members "... may well have constituted a more strongly selected subgroup in which wisdom proved related to longevity" (Labouvie-Vief 1990, p. 79).

The mean wisdom score for the high wisdom group is 3.56 for both men (SD = .31) and women (SD = .26) while the average score for those low on wisdom is 2.53 for women (SD = .33) and 2.71 for men (SD = .19). The difference between the two wisdom groups as estimated by the T-test is highly statistically significant (p < .001) for both subsamples.

The first part of Tables 2 to 4 compares the unadjusted means of the variables for the high and low wisdom groups using the T-test. As shown in Tables 2 and 3, a person's degree of wisdom in old age is positively and significantly related to his or her social class position in 1929. Since social class in 1929 has a significant effect on all variables in Tables 2 and 3 except on absolute change in income, persistent economic deprivation, number of years mother worked between 1930 and 1935, and men's progression in work-life between 1929 and 1945, the second part of Tables 2 to 4 displays the means of the variables for the low and high wisdom groups controlled for the family social class score in 1929. These adjusted means were obtained through analysis of covariance procedures.

If the means are adjusted for initial social class position in 1929 the only significant differences between elderly women with a high and low degree of wisdom as measured by the univariate F-test are the lower social class scores of relatively wise elderly women in 1939 and their higher likelihood of having belonged to at least the middle class in 1945 (see Table 2). The two groups do not differ significantly with respect to the number of years worked or their occupational status between 1930 and 1945 which means that the women's work experiences cannot account for their different degree of wisdom in old age as assumed.

Relatively wise elderly men, by contrast, were clearly socially privileged after the Depression years in comparison to the low wisdom group (see Table 3). Only 5% of the wise elderly men experienced persistent economic deprivation during the Depression years compared to 57% of the low wisdom group. On the average, wise elderly men were only .15 years unemployed between 1930 and 1939 in contrast to elderly men low on wisdom
### TABLE 2
Social Characteristics in Early and Middle Adulthood of Elderly Women by Degree of Wisdom; T-test and Analysis of Covariance
Adjusted for Family Social Class Score in 1929

<table>
<thead>
<tr>
<th>Social Characteristics</th>
<th>Low Mean (n)</th>
<th>High Mean (n)</th>
<th>Significance of Difference T-value</th>
<th>Degree of Wisdom</th>
<th>Low Mean (n)</th>
<th>High Mean (n)</th>
<th>Analysis of Covariance F-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Social Class Score 1929</td>
<td>38.94 (31)</td>
<td>44.22 (50)</td>
<td>-1.36</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Social Class Score 1939</td>
<td>40.52 (31)</td>
<td>42.84 (50)</td>
<td>- .59</td>
<td>43.04</td>
<td>40.32</td>
<td>3.87*</td>
<td></td>
</tr>
<tr>
<td>Family Social Class Score 1945</td>
<td>42.10 (31)</td>
<td>44.96 (50)</td>
<td>-.76</td>
<td>44.45</td>
<td>42.61</td>
<td>1.54</td>
<td></td>
</tr>
<tr>
<td>Social Class 1929 (1 = middle+)</td>
<td>.61 (31)</td>
<td>.80 (50)</td>
<td>-1.86*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Class 1939</td>
<td>.61 (31)</td>
<td>.78 (50)</td>
<td>-1.63</td>
<td>.66</td>
<td>.73</td>
<td>.84</td>
<td></td>
</tr>
<tr>
<td>Social Class 1945</td>
<td>.65 (31)</td>
<td>.86 (50)</td>
<td>-2.14**</td>
<td>.69</td>
<td>.82</td>
<td>3.43*</td>
<td></td>
</tr>
<tr>
<td>Economic Deprivation (1 = yes)</td>
<td>.35 (31)</td>
<td>.48 (50)</td>
<td>-1.10</td>
<td>.33</td>
<td>.50</td>
<td>2.21</td>
<td></td>
</tr>
<tr>
<td>Change in Income 1929–Lowest Year</td>
<td>-857 (23)</td>
<td>-1173 (30)</td>
<td>1.08</td>
<td>-901</td>
<td>-1129</td>
<td>.56</td>
<td></td>
</tr>
<tr>
<td>Persistent Economic Deprivation (1 = y)</td>
<td>.26 (23)</td>
<td>.17 (30)</td>
<td>.83</td>
<td>.20</td>
<td>.23</td>
<td>.10</td>
<td></td>
</tr>
<tr>
<td>Years Worked: 1930–1935</td>
<td>1.19 (31)</td>
<td>.78 (50)</td>
<td>1.02</td>
<td>1.15</td>
<td>.83</td>
<td>.61</td>
<td></td>
</tr>
<tr>
<td>Years Worked: 1936–1939</td>
<td>1.10 (31)</td>
<td>.88 (50)</td>
<td>.60</td>
<td>1.03</td>
<td>.95</td>
<td>.06</td>
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</tr>
<tr>
<td>Years Worked: 1940–1945</td>
<td>2.32 (31)</td>
<td>1.88 (50)</td>
<td>.82</td>
<td>2.18</td>
<td>2.02</td>
<td>.11</td>
<td></td>
</tr>
<tr>
<td>Years Worked: 1930–1945</td>
<td>4.61 (31)</td>
<td>3.54 (50)</td>
<td>.93</td>
<td>4.36</td>
<td>3.79</td>
<td>.26</td>
<td></td>
</tr>
<tr>
<td>Occupational Status: 1930–1935</td>
<td>3.31 (13)</td>
<td>3.40 (10)</td>
<td>-.16</td>
<td>3.41</td>
<td>3.30</td>
<td>.06</td>
<td></td>
</tr>
<tr>
<td>Occupational Status: 1940–1945</td>
<td>3.90 (20)</td>
<td>3.86 (22)</td>
<td>.09</td>
<td>4.05</td>
<td>3.71</td>
<td>.88</td>
<td></td>
</tr>
</tbody>
</table>

Note: * .10 > p ≥ .05; ** p < .05.
TABLE 3
Social Characteristics in Early and Middle Adulthood of Elderly Men by Degree of Wisdom; T-test and Analysis of Covariance Adjusted for Family Social Class Score in 1929

<table>
<thead>
<tr>
<th>Social Characteristics</th>
<th>Low</th>
<th>High</th>
<th>T-value</th>
<th>Low</th>
<th>High</th>
<th>F-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree of Wisdom</td>
<td>Low</td>
<td>High</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean (n)</td>
<td>Mean (n)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Social Class Score 1929</td>
<td>36.67 (12)</td>
<td>47.26 (27)</td>
<td>-1.80*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Social Class Score 1939</td>
<td>36.08 (12)</td>
<td>47.81 (27)</td>
<td>-1.99*</td>
<td>41.11</td>
<td>42.79</td>
<td>.71</td>
</tr>
<tr>
<td>Family Social Class Score 1945</td>
<td>41.92 (12)</td>
<td>48.33 (27)</td>
<td>-1.20</td>
<td>46.33</td>
<td>43.92</td>
<td>1.10</td>
</tr>
<tr>
<td>Social Class 1929 (1 = middle+)</td>
<td>.67 (12)</td>
<td>.85 (27)</td>
<td>-1.32*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Class 1939</td>
<td>.58 (12)</td>
<td>.80 (27)</td>
<td>-1.90*</td>
<td>.66</td>
<td>.81</td>
<td>1.93</td>
</tr>
<tr>
<td>Social Class 1945</td>
<td>.75 (12)</td>
<td>.89 (27)</td>
<td>-1.10</td>
<td>.81</td>
<td>.83</td>
<td>.03</td>
</tr>
<tr>
<td>Economic Deprivation (1 = yes)</td>
<td>.50 (12)</td>
<td>.33 (27)</td>
<td></td>
<td>.97</td>
<td>.43</td>
<td>.03</td>
</tr>
<tr>
<td>Change in Income 1929–Lowest Year</td>
<td>-864 (7)</td>
<td>-707 (19)</td>
<td>-51</td>
<td>-837</td>
<td>-735</td>
<td>.10</td>
</tr>
<tr>
<td>Persistent Economic Deprivation (1 = y)</td>
<td>.57 (7)</td>
<td>.05 (19)</td>
<td>2.48**</td>
<td>.52</td>
<td>.11</td>
<td>8.91***</td>
</tr>
<tr>
<td>Years Unemployed: 1930–1935</td>
<td>.83 (12)</td>
<td>.15 (26)</td>
<td>1.86*</td>
<td>.74</td>
<td>.24</td>
<td>2.94*</td>
</tr>
<tr>
<td>Years Unemployed: 1936–1939</td>
<td>.36 (11)</td>
<td>.00 (27)</td>
<td>1.30</td>
<td>.32</td>
<td>.05</td>
<td>2.43</td>
</tr>
<tr>
<td>Years Unemployed: 1930–1939</td>
<td>1.17 (12)</td>
<td>.15 (27)</td>
<td>2.65**</td>
<td>1.03</td>
<td>.28</td>
<td>7.64***</td>
</tr>
<tr>
<td>Job Mobility: 1929–1945</td>
<td>3.50 (12)</td>
<td>3.11 (27)</td>
<td>1.00</td>
<td>3.42</td>
<td>3.20</td>
<td>.63</td>
</tr>
<tr>
<td>Progress. in Worklife: 1929–1945</td>
<td>2.42 (12)</td>
<td>2.33 (27)</td>
<td>.38</td>
<td>2.44</td>
<td>2.30</td>
<td>.37</td>
</tr>
</tbody>
</table>

Note: * .10 > p ≥ .05; ** .05 > p ≥ .01; *** p < .01.
who were out of work for 1.17 years. However, in spite of their privileged position, the high wisdom group of older men was not more likely to avoid economic hardship during the Great Depression than the low wisdom group.

Although relatively wise elderly women were not spared from economic deprivation and were even hit, on average, slightly harder by Depression hardship than the low wisdom group, they were again overrepresented in the middle to higher social classes as early as in 1945. Although social class is determined by the education and occupation of the head of household, primarily the husband, it may be that women with high in contrast to those with low wisdom scores in old age were more encouraging and emotionally supportive of their husbands during these economically difficult times. This might have had a positive effect on their husbands’ endeavor to find a higher status job after 1939.

One indication for this hypothesis is the degree of marital support at the onset of the Depression period which was significantly stronger for the high than for the low wisdom group (see Table 4). Furthermore, relatively wise elderly women managed to stay at least as psychological healthy from 1933 to 1944 as the low wisdom group. Similarly, relatively wise elderly men scored somewhat higher on marital quality and all psychological health measures between 1930/31 and 1944 than the low wisdom group. However, the difference between the two groups is only statistically significant for psychological health in the years 1930/31 and 1942–44.

If relatively wise elderly men and women were able to grow psychologically through Depression hardship experiences whereas the low wisdom group failed to do so, we would expect that the psychological health of relatively wise elders improved and the health of the low wisdom group declined in the years after the Great Depression. By contrast, the same improvement and decline in psychological health scores is not expected for the high and low wisdom groups who were spared from economic hardship during the Depression years.

To test this hypothesis, I divided the sample into groups with and without economic deprivation experience and compared the psychological health scores between 1930/31 and 1942–44 for elders with high and low wisdom scores within each group using repeated measures analysis of variance procedures. Because of the high number of missing cases, due to incomplete longitudinal data, the resulting subgroups are relatively small (especially for the men) so that a separate analysis of the male and female samples is not feasible. Hence, for the following analyses, the two subsamples are combined. It should be noted, however, that the data pattern is very similar for women and men.

Figure 1 shows the psychological health scores from 1930/31 to 1942–44 for high and low wisdom groups with and without Depression hardship experience. Consistent with the above stated hypothesis, on the average, the scores of the psychological health measures improved considerably over the years for relatively wise elders who experienced economic deprivation during the Great Depression, particularly when the initial and last scores are compared. Conversely, psychological health scores of the low wisdom group tended to decline from 1930/31 to 1942–44 after an initial improvement in psychological health from 1930/31 to 1933–35 which may be due to a reduction in economic pressure after the peak of the Great Depression and, therefore, a momentary emotional uplift. A quite different picture emerges for elders who were spared from economic hardship during the Depression years. On the average, respondents with a high degree of wisdom in old age started out with
TABLE 4
Psychological Characteristics in Early and Middle Adulthood of Elderly Women and Men by Degree of Wisdom; T-test and Analysis of Covariance Adjusted for Family Social Class Score in 1929

<table>
<thead>
<tr>
<th>Psychological Characteristics</th>
<th>(1)</th>
<th>Significance of Difference</th>
<th>(2)</th>
<th>Degree of Wisdom</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>High</td>
<td>T-value</td>
<td>Low Adjusted Mean</td>
</tr>
<tr>
<td>Women</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital Quality: 1930/31</td>
<td>3.28 (23)</td>
<td>3.68 (30)</td>
<td>-1.81*</td>
<td>3.28</td>
</tr>
<tr>
<td>Psychological Health: 1930/31</td>
<td>2.78 (23)</td>
<td>2.68 (30)</td>
<td>.40</td>
<td>2.73</td>
</tr>
<tr>
<td>Psychological Health: 1933-1935</td>
<td>2.95 (23)</td>
<td>3.09 (28)</td>
<td>-.68</td>
<td>2.94</td>
</tr>
<tr>
<td>Psychological Health: 1936-1938</td>
<td>2.94 (22)</td>
<td>3.18 (24)</td>
<td>-1.19</td>
<td>2.94</td>
</tr>
<tr>
<td>Psychological Health: 1939-1941</td>
<td>2.86 (22)</td>
<td>3.00 (25)</td>
<td>-.88</td>
<td>2.88</td>
</tr>
<tr>
<td>Psychological Health: 1942-1944</td>
<td>2.93 (20)</td>
<td>3.13 (22)</td>
<td>-1.09</td>
<td>2.90</td>
</tr>
<tr>
<td>Men</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital Quality: 1930/31</td>
<td>3.51 (7)</td>
<td>3.72 (19)</td>
<td>-.69</td>
<td>3.48</td>
</tr>
<tr>
<td>Psychological Health: 1930/31</td>
<td>2.73 (7)</td>
<td>3.20 (19)</td>
<td>-1.08</td>
<td>2.59</td>
</tr>
<tr>
<td>Psychological Health: 1933-1935</td>
<td>3.17 (7)</td>
<td>3.32 (18)</td>
<td>-.39</td>
<td>3.09</td>
</tr>
<tr>
<td>Psychological Health: 1936-1938</td>
<td>3.09 (6)</td>
<td>3.14 (15)</td>
<td>-.10</td>
<td>2.98</td>
</tr>
<tr>
<td>Psychological Health: 1939-1941</td>
<td>3.05 (6)</td>
<td>3.18 (17)</td>
<td>-.35</td>
<td>2.98</td>
</tr>
<tr>
<td>Psychological Health: 1942-1944</td>
<td>2.22 (3)</td>
<td>3.29 (12)</td>
<td>-2.71**</td>
<td>2.19</td>
</tr>
</tbody>
</table>

Note: * .10 > p ≥ .05; ** p < .05.
Hardship Experience

Degree of Wisdom
- Low (n = 9)
- High (n = 17)

Psychological Health: Mean

Year

1930/31 1933-35 1936-39 1942-44

1.8 2.3 2.8 3.3 3.8

Degree of Wisdom x Year: \( F = 4.94 \) (\( P = .001 \))

Psychological Health 1930/31 to 1942-1944 by Depression Hardship Experience and Degree of Wisdom

No Hardship Experience

Degree of Wisdom
- Low (n = 14)
- High (n = 15)

Psychological Health: Mean

Year

1930/31 1933-35 1936-39 1942-44

1.8 2.3 2.8 3.3 3.8

Degree of Wisdom x Year: \( F = .79 \) (\( P = .536 \))

Hardship Experience x Degree of Wisdom x Year: \( F = 4.28 \) (\( P = .002 \))

FIGURE 1
Psychological Health 1930/31 to 1942-1944 by Depression Hardship Experience and Degree of Wisdom
a higher psychological health score at the beginning of the Great Depression than the low wisdom group and their psychological health scores remained higher throughout the years.

The three-way within-subject interaction effect between hardship experience, degree of wisdom, and psychological health from 1930/31 to 1942–44 is highly statistically significant (p = .002), even though the number of cases for which complete information is available is relatively small. As can be seen in Figure 1, the difference between the developmental pathways of elders with a high versus a low degree of wisdom is only statistically significant for those who encountered economic deprivation during the Depression years.

It is interesting to note that the wisdom scores of elderly respondents with and without Depression hardship experience do not differ significantly although their developmental pathways do. This signifies that it is important to examine the life course of people if we want to understand their social and psychological situation in old age. Cross-sectional aging studies may be very misleading if they ignore the various paths that can lead to a certain social or psychological outcome during the later years of life.

DISCUSSION

The previous analyses give some support to the hypothesis that one path to wisdom is the successful resolution of crises and hardship (Bianchi 1994; Clayton and Birren 1980; Gadamer 1960; Giesen and Datan 1980; Park, Cohen, and Murch 1996). It is in this way that a social crisis can lead to personal growth.

Relatively wise elders were not more likely to avoid economic hardship during the Depression years than older people with a relatively low degree of wisdom. But as early as 1945 wise older women were again overrepresented in the middle and higher social classes and wise elderly men were less likely to endure persistent economic deprivation and to be unemployed for longer periods of time between 1930 and 1939 than the men and women who scored low on wisdom in later life. Furthermore, the psychological health of respondents who experienced economic deprivation during the Great Depression increased from 1930/31 to 1942–1944 for wise elders whereas it decreased for men and women with a low degree of wisdom in old age. By comparison, the psychological health of respondents who escaped Depression hardship did not change profoundly during this period, though wise elderly men and women were psychologically healthier at each point in time than elders with low wisdom scores.

Could it be that stable personality traits are responsible for these patterns? McCrae and Costa (1982) suggest that an individual's personality at the age of 30 is a good predictor of his or her personality at age 80, especially in the domains of Neuroticism, Extraversion, and Openness to Experience (Costa, McCrae, and Arenberg 1983). It is conceivable that Neuroticism is negatively and Openness to Experience positively related to wisdom. Furthermore, it is likely that people who score high on Neuroticism and low on Openness to Experience were least able to cope with the economic and emotional crises accompanying the Great Depression which, in turn, may have deteriorated their psychological health. But this line of reasoning cannot explain the remarkable increase in psychological health after the experience of Depression hardship for those men and women with high wisdom scores in old age. Individuals who score low on Neuroticism and are open to new experiences may
not suffer any adverse psychological consequences from a crisis but personality theory does not explain why their psychological health should improve as the result of such an event.

To examine the actual stability of the respondents' personality traits, Pearson's correlation coefficients of five personality items were computed ("Self-assurance/poise," "Openmindedness," "Frankness in discussion," "No restlessness," and "No worry") that were identically measured in 1931/32 and again in 1968/69 for the women in the study. Unfortunately, the 1931/32 items were not available for the sample men. Only one of the item pairs, "Frankness in discussion," was statistically significant at the .05 alpha level with a correlation of \( r = .28 \). All other correlations between identical early and late personality characteristic items remained below .20.³

One possible explanation for this outcome is that personality is more stable during a short period of time but that it can change profoundly over the whole course of the adult life span. In fact, many researchers who find negligible change in the personality traits of individuals have followed their subjects for only about 10 years or less (Costa, McCrae, and Arenberg 1983; Grombach 1979; Siegler, George, and Okun 1979). Studies who cover a longer period of time in the life of their participants reveal instead a decline in the stability of personality characteristics (Haan 1981). Moos and Susman (1980, p. 591) who review several longitudinal studies of personality development observe that "... as the time interval between measurement increases, the evidence of stability decreases."

We do not know the actual level of wisdom among these adults during and after the years of the Great Depression. However, by noting that wisdom and psychological health or maturity seem to be highly related to each other (Allport 1961; Heath 1991; Jahoda 1958; Kramer 1990; Pascual-Leone 1990), this analysis suggests that wise elders were able to mature psychologically through the experience of a severe economic crisis while the psychosocial development of men and women who faced the same challenge but scored low on wisdom in old age tended to regress after 1935.

However, success in coping with crises and hardship by itself should not be equated with wisdom. Rather, successful coping may lead to stress-related growth which is likely to foster the emergence of wisdom (Park, Cohen, and Murch 1996). The difference between these three concepts is that successful coping can occur without the development of sympathy and compassion for others and that stress-related growth is only one possible pathway to wisdom.

The study also illustrates the importance of a life course approach in contrast to crosssectional aging research. In old age, the respondents' degree of wisdom did not differ significantly by their experience of Depression hardship although their developmental pathways varied considerably.

But are these findings equally valid for persons from, for example, other cohorts and a different socioeconomic, ethnic, and national background or are they restricted to white, urban Americans from Berkeley, California, born around the turn of the century? This question can only be answered through a replication of the study with a more diverse and representative data set.

One drawback of longitudinal studies is their vulnerability to sample selection bias. In the present research, a person's degree of wisdom is likely to be positively related to his or her probability of participating in the 1968/69 follow-up study. However, if this is true, the
variance of the wisdom scores will be smaller than expected. This means that the differences between the high and low wisdom groups are likely to be even more pronounced if all original participants were included in the present study.

Unfortunately, the number of available longitudinal studies that span the adulthood years to old age is extremely limited. Even fewer contain measures of the cognitive, reflective, and affective components of wisdom. Hence, researchers who wish to examine the psychosocial development of contemporary older adults across the life course are presently restricted to the few existing panel studies that incorporate the necessary psychosocial items and variables.

This study gives some quantitative support to the pervasive anecdotal evidence that wisdom is acquired through the successful resolution of crises and obstacles in one’s life (Bianchi 1994; Giesen and Datan 1980; Thomas 1991). The following example, summarizes the essence of a wise person, as defined in this study: an integration of cognitive, reflective, and affective personality characteristics.

An obituary for Morris S. Schwarz in the Social Psychological Newsletter of the American Sociological Association reveals that Schwarz lost his mother in early childhood “... an event he often credited with helping him to be the compassionate, gentle soul that he was” (McGann 1996). At the age of 78, when he was aware that he was dying of ALS, he still tried to gain wisdom from this process for his own benefit and that of others: “A classic exercise in immersion and reflexivity, Morrie was both inside his own dying and outside it looking back in an attempt to analyze his particular process of death for more general principles: What is this an instance of? What can I learn from this? What might I teach others as a result of these events?” (McGann 1996).

However, the present research also shows that crises and hardship do not automatically lead to wisdom (Bianchi 1994). What may enable some people to gain wisdom from these events whereas others fail to learn anything positive? To answer this question, a follow-up study is needed that analyzes in detail the semi-structured qualitative interviews that were conducted with the respondents between 1930 and 1944. This qualitative research may allow us to understand the process by which wisdom is achieved and applied for the benefit of the individual and to identify the causal conditions that help or hinder people to grow psychologically through the experience of an (economic) crisis. Are these conditions primarily internal (e.g., personality characteristics and personal resources), external (e.g., welfare and counseling programs, new opportunities through economic development, etc.), or a combination of both (e.g., family relationships, social support, etc.)? Because of the small sample size for the high and low wisdom groups with and without Depression hardship experience these questions could not be pursued further in the present quantitative study.

If wisdom develops through life experiences, then older people have a higher chance to be wise than younger ones (Baltes and Smith 1990; Kekes 1983; Kramer 1990; Taranto 1989). However, life experiences will only expand one’s wisdom when one is able to deal successfully with these events (Erikson 1982, 1980, 1964; Erikson, Erikson, and Kivnick 1986). Merely becoming old is not enough for the acquisition of wisdom. As Kekes remarks (1983, 286), “one can be old and foolish, but a wise man is likely to be old, simply because such growth takes time.”
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NOTES

1. The arithmetic mean is 3.17 for the women and 3.30 for the men.
2. Since the male and female cases are not completely independent of each other, the analyses were repeated for only the women (n = 40). The results were basically the same. Both the three-way interaction term and the interaction between wisdom and psychological health from 1930/31 to 1942-44 for women with hardship experience were statistically significant with F-values of 2.40 (p = .05) and 3.49 (p = .01), respectively.
3. To take measurement error into account, the items "Open-mindedness" and "Frankness in discussion" were used as indicators for the latent variables "Openness in early adulthood" and "Openness in late adulthood" in a confirmatory two-factor analysis in LISREL VII. The correlation between the two latent variables did not reach statistical significance and was with .33 only slightly higher than the simple correlation of the item pair "Frankness in discussion."

REFERENCES


