

SLS NEWSLETTER

NEWS FROM THE SEATTLE LONGITUDINAL STUDY

THE PENNSYLVANIA STATE UNIVERSITY

SUMMER 2004

ANOTHER SEVEN YEARS HAVE PASSED

In 2004 we will begin the NEXT follow-up of the Seattle Longitudinal Study (SLS). Participants include adults who were part of one of the previous waves of the study (the last one in 1997/1998). We will try to reassess as many persons as possible to determine changes in cognitive abilities over the past 7 years.

The Seattle Longitudinal Study (SLS) was begun in 1956 by Dr. K. Warner Schaie in cooperation with Group Health Cooperative of Puget Sound (GHC). The purpose of the research is to study the many influences that affect psychological development during the adult years. Five hundred Group Health members participated in the first study. They were randomly selected from the Group Health membership and ranged in age from the early 20s to the late 60s. The study has been continued in seven-year intervals: 1963, 1970, 1977, 1984, 1991, and 1998. At each interval all persons who had previously participated in the study were asked to continue. At each seven-year interval, a new group of persons randomly selected from the membership was also added. Approximately 6000 persons have now participated at some time in this study. Of the original participants, 38 persons remain who have now been in the study for 45 years. Current participants range in age from 22 to 101 years. In addition to the main study, we have collected data in 1989/90, 1996/97 and in 2003/04 from many adult children as well as sisters and brothers of our main study

participants to examine family similarity in mental abilities and other psychological characteristics. In 2001 we added grandchildren of our long-term participants

The Seattle Longitudinal Study is considered to be one of the most extensive psychological research studies of how people develop and change through adulthood. Dr. Schaie and his colleagues have written two monographs and over 100 articles and chapters in scientific publications on findings from this study. Dr. Schaie has testified before congressional committees regarding findings from the study, and study results have been used in legal proceedings on age discrimination in employment as well as in policy discussions regarding mandatory retirement practices in the United States and Canada.



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Age and Gender Differences in Personality

Participants in both the Seattle Longitudinal Study and those in the Family Similarity Study were sent a Personality Questionnaire. The Personality Questionnaire contained a large number of statements regarding different personality traits (e.g., cooperative, anxious, energetic, etc). Participants indicated the extent to which they thought each statement represented themselves.

We have examined whether the strength of various personality traits differed by age or by gender. For example, are older adults more likely to perceive themselves as being cooperative than younger adults? Or, are women more likely to think of themselves as anxious than men? Since the Personality Questionnaire has only been given once to SLS participants, it was not possible to study change in personality with age. The findings only indicate how folks at various ages differ in the strength of personality characteristics or how men and women differ.

Age differences.

Young adults reported themselves to be more concerned, self-conscious and prone to worry than did middle age or older adults. In addition, young adults reported that they had a greater appreciation for aesthetics, novelty and new ideas and views compared to the reports of middle age and older adults. In contrast, older adults perceived themselves to be more philanthropic, trusting and cooperative, while younger adults perceived themselves to be lower on these characteristics. Likewise, older adults reported being more comfortable with traditional and familiar contexts. Finally, young adults tended to see themselves as more confident, energetic and cheerful, preferring exciting and stimulating experiences - while older adults tended to see themselves as more reserved and independent, needing little excitement for contentment.

Gender differences

In addition to differences between young and old adults, men and women also reported differences in how much various personality traits were perceived to represent themselves. True to stereotypes, women reported feeling a greater appreciation for aesthetics, novelty and new ideas and views, compared to reports of men. Women also perceived themselves as more philanthropic, trusting and cooperative than men perceived themselves. Men, however, perceived themselves to be more calm, relaxed and less prone to

excessive worry, compared to the reports of women. Men believed that they were more likely to make decisions based on facts, rather than emotions, and believed that they were more quick to defend their own interests and beliefs, compared to women's reports.

Influence of childhood environment

In the SLS we have also obtained information on participants' perceptions of their childhood family environment. For example, to what extent did participants think that their childhood family involved a lot of conflict, intellectual stimulation, or fostered achievement motivation? We have examined whether participants' perceptions of their childhood family environment were related to their personality traits

Overall, there were stronger associations between perceptions of childhood family environment and personality traits for young and middle age participants than for older adult participants. These age differences in associations may reflect generational differences in family environment and personality traits. Alternatively, it may reflect age differences in recollections of one's childhood family environment.

Individuals who reported that their childhood family fostered achievement motivation also perceived themselves to be high on personality traits such as being reliable, strong-willed, meticulous, and goal oriented. Adults who recalled their family environment to be one represented by cohesion, conflict or expressivity were more likely to report themselves to be calm, relaxed and even-tempered. Finally, individuals that recalled their childhood family as emphasizing intellectual and cultural issues perceived themselves to be higher on traits such as preference for novelty, appreciation for aesthetics, and eager to consider and debate new ideas.

New Edition of Textbook

Our textbook *Adult Development and Aging* by K. Warner Schaie and Sherry L. Willis has recently been revised and a 5th Edition is now available published by Prentice-Hall. The book was recently translated into Spanish, Chinese and Serbo-Croatian. A Japanese translation is in preparation.

The SLS is supported by Research Grant R37 AG08055 from the National Institute on Aging. K. Warner Schaie, Principal Investigator; Sherry L. Willis, Co-Investigator.

Generational Similarities in Health Behaviors

Parents attempt to socialize or educate their young children about many things. Sometimes parents attempt to directly teach their children certain behaviors or skills. More often, children learn through observing their parents' behaviors and the values and beliefs reflected in parents' behaviors. One important area of behavior in which parents try to influence their children is with respect to health behaviors - such as nutrition, exercise, and safety precautions.

Most studies of the association between behaviors of parents and their offspring have examined only young children - the period in which parents and children are living in the same household, and hence parents have a strong influence on their children. In the Family Similarity Study we have begun to examine whether there are similarities in behaviors between parents and their adult children - when it may have been many years since parents and their offspring lived in the same household. Are there still associations between the behaviors of older parents and their young adult or middle age offspring? Specifically, we have examined whether there were similarities in health behaviors between parents and their adult children. Domains of health behaviors examined included: Nutrition, exercise, dental care, regularity of medical check-ups and risk behaviors, such as alcohol, smoking, and seat belt usage

One of the most consistent associations between parents and adult children was found in terms of nutritional practices - such as frequency of eating meats (e.g., lamb, pork), cholesterol products (e.g., egg yolks, fat), sodium intake, and attention to nutritional labels. Adult children and parents reported similar nutritional practices. We further examined whether these associations were found between same-sex versus different-sex parent and offspring pairs. Some research suggest that parents and adult children of the same sex (e.g., mother-daughters) may be more similar in behaviors. However, similarity in nutritional practices was found for all types of parent-offspring pairs (mother-daughter, father-son, mother-son, and father-daughter).

Other similarities in health behaviors varied by the particular parent-offspring type. Mothers and sons reported similar types of exercise behavior patterns. Fathers and sons reported similar seat belt behaviors. Finally, fathers and daughters

reported similar health behaviors in terms of dental and medical check-up routines.

In future research, we will examine what factors might influence these similarities between parents and adult children in health behaviors. For example, does more frequent contact between parents and adult children impact similarity of health behavior?. Are certain characteristics of the childhood family environment (e.g., cohesion, expressivity) more likely to be associated with similarity in health practices?

Using Strategies in Cognitive Training

Since 1984 over 500 participants in the Seattle Longitudinal Study have been involved in cognitive training. There have been three waves of cognitive training with new participants being trained in 1984, 1991, and 1998. In addition, some participants received booster training sessions in 1991 and/or 1998. Participants were trained on one of two abilities, inductive reasoning and spatial orientation ability. These two abilities show relatively early age-related decline beginning in the mid-sixties, on average. Over two-thirds of participants had significant improvement on tests of the ability on which they were trained. In addition, approximately forty-percent of participants who had shown previous decline improved as a result of training to the extent that their performance after training was equal to or greater than their performance fourteen-years previously. Finally, when participants were reassessed seven-years after training, there were some residual effects of training!

We have recently been examining what specific factors were associated with training improvement. One important factor seems to be using the cognitive strategies that were emphasized during training. On inductive reasoning ability, this involved making marks on the problem that helped one to identify the pattern used to solve the task; one made slashes, tic marks, and underlined parts of the problem. In spatial training, one practiced turning the paper to study the spatial orientation of the drawing and then tried to do this mentally, rather than physically turning the page. One also gave a name to the drawing.

We have found that participants who received training on one of the abilities were much more

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Using Strategies in Cognitive Training (Continued from page 3)

likely to use the strategies for that ability than participants trained on another ability - use of strategies increased as a result of training. More importantly, increased use of strategies was related to improving one's performance on the ability trained. Participants who used the strategies more frequently also showed greater improvement on tests of the ability. So using cognitive strategies does help in doing cognitive tasks and older adults can be taught to use these strategies. Some adults think that doing difficult mental tasks involves sheer brain power, like muscle strength. However, both in physical and mental training, there are "tricks" or strategies that can be learned to improve one's performance physically and mentally. It's smart to use cognitive strategies!

Honorary Degree for Dr. Schaie

The project director for the Seattle Longitudinal Study, Dr. K. Warner Schaie, was conferred the honorary Doctor of Science degree by West Virginia University at their convocation on December 6, 2002. The degree was awarded in recognition of Dr. Schaie's long-term research career in the study of cognitive aging with special mention of the Seattle Longitudinal Study.

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