

John M. (Jack) Digman

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Jack Digman spent most of his boyhood in Cincinnati, Ohio; he attended Ohio State University, where he obtained his BA in 1948 and his PhD in 1951, both in experimental psychology. From 1951 to 1991, he taught in the Psychology Department at the University of Hawaii, where he served as president of its faculty senate in 1966–1967. He was an early member of the Society of Multivariate Experimental Psychology, and served as its president in 1978–1979. Upon his retirement from the faculty in Hawaii, he became a research scientist at the Oregon Research Institute in Eugene, Oregon, where he worked with the two authors of this biography.

Digman was hugely influential in popularizing the five-factor model of personality structure, in part through his own seminal work on teachers' ratings of child temperament, in part through his creative re-analyses and syntheses of other studies of personality structure, and in part because of his influential essays on the history of the five-factor model. Digman left another invaluable legacy in the form of the teachers' ratings of child personality traits which became available for use by others, and which were used to form the childhood database for the ongoing Hawaii Personality and Health Longitudinal Study.

From 1959 to 1967, Jack persuaded 88 elementary school teachers on the Hawaiian islands of Oahu and Kauai to rank-order each of their students on around 50 personality traits at the very end of the school year. The resulting detailed descriptions of over 2,400 children forms one of the most comprehensive collections of children's personality traits ever obtained. For information about the exact methods and the specific traits used in each of his six samples, see Goldberg (2001).

In preliminary analyses of portions of this rich data-set (Digman & Takemoto-Chock, 1981; Digman & Inouye, 1986), Jack became convinced of the usefulness of the five broad personality factors (Digman, 1989) that would later be labeled by Goldberg (1990) as the Big Five factor structure. Digman's findings from these preliminary analyses, plus the findings from analyses of other data sets by Goldberg, led Costa and McCrae to expand their initial three-factor NEO inventory to include the five-factor structure included in the

NEO-PI-R. With a Russian colleague, Digman explored the structure of temperament and personality in Russian children (Digman & Shmelyov, 1996). In one of Jack's final publications (Digman, 1997), he espoused a higher-level two-factor structure that has become a useful addition to the five-factor models. In addition, his historical accounts of the development of the Big Five model (Digman, 1990, 1996) have been widely cited.

Over the years, Jack's colleagues encouraged him to conduct a follow-up of the participants in his studies of childhood personality traits, so as to be able to study the stability of the Big Five personality traits from childhood to adulthood and their relation to life outcomes. By the mid-1990s, there was an additional motivation. Howard Friedman and his colleagues had recently published their remarkable findings from the Terman Life-Cycle study, showing that conscientiousness at age 11 predicted longevity (Friedman, Schwartz, Tomlinson-Keasey, Tucker, Martin, Wingard, & Criqui, 1995). A follow-up of Digman's childhood samples would enable the study of the processes by which childhood personality traits influenced health and mortality. Together, these arguments proved persuasive, and in 1998 he was awarded a research grant from the National Institute of Mental Health to find the members of the original childhood samples, by then in their 40s, and recruit them for new studies. Tragically, Jack Digman died shortly after receiving this award.

Despite this setback, others took up the program of research he envisioned. This study, now known as the Hawaii Longitudinal Study of Personality and Health, has continued for the past 20 years and is ongoing. When Digman collected the childhood personality data, he had no plans to maintain contact with the children over the long-term. Consequently, the effort to find the members of his childhood samples, now adults, was limited to first and last names and their elementary schools as a starting point. Nevertheless, over 80% of the original children have now been located and over 70% of those agreed to take part in follow-up studies (Hampson, Dubanoski, Hamada, Marsella, Matsukawa, Suarez, & Goldberg, 2001). The participants are representative of the ethnic and cultural diversity of classrooms back in the 1960s, providing a rare opportunity to study minorities such as Native Hawaiians, Part-native Hawaiians, and Japanese Americans. Follow-up research, using questionnaires and in-person medical and psychological assessments, has yielded a number of contributions to topics in personality psychology, two of which are highlighted here: personality stability and personality and health.

Personality stability is a basic assumption of trait theory. Yet, the degree of stability of personality over the lifespan, and particularly over important development periods, such as from childhood to adulthood, has been controversial. The Hawaii study, with comprehensive Big Five measurement in childhood and Big Five factors assessed 40 or more years later using self and observer reports, is well-placed to examine personality stability across the lifespan. Contrary to previous conclusions, the Hawaii study demonstrated that the Big Five traits are not all similarly stable (Hampson & Goldberg, 2006; Edmonds, Goldberg, Hampson, & Barckley, 2013). Whereas extraversion and conscientiousness exhibited substantial stability, emotional stability exhibited virtually no stability at all.

Among longitudinal studies of personality and health, the detailed childhood personality assessments obtained by Digman, and the length of follow-up of living participants, are unparalleled. With these data, the Hawaii study has advanced knowledge on

a number of fronts. The association between childhood conscientiousness and longevity demonstrated in the Terman Life-Cycle study suggested that a corresponding association with middle-aged health would be observed; more conscientious individuals should be in better health than those who are less conscientious. The Hawaii study supported this hypothesis, using both self-reported health and objective clinical biomarkers obtained at a medical examination (Hampson, Edmonds, Goldberg, Dubanoski, & Hillier, 2013). None of the other childhood Big Five factors predicted subsequent health status. Participants provided repeated assessments of their health-enhancing and health-damaging behaviors such as physical activity, dietary choices, and smoking. Their health-damaging behaviors mediated the association between childhood conscientiousness and middle-aged health status, along with educational attainment and cognitive ability (Hampson, Edmonds, Goldberg, Dubanoski, & Hillier, 2015). This finding added to existing support for a health-behavior model to explain associations between personality and health, and demonstrated apparently far-reaching effects of childhood personality on these behaviors over the lifespan.

A challenge for any longitudinal study is to anticipate which measures will prove useful in the future. The Hawaii study continues to benefit from Digman's perspicacity in appreciating the importance of a comprehensive childhood personality assessment. The study also benefits from the collection of a wide range of self-report and biological data, without necessarily knowing where such data may lead. A telling case in point was the decision early on to obtain dried blood spots for future genetic analyses. DNA was extracted from these samples and assayed for leukocyte telomere length, a marker of cellular aging. Less conscientious children were more likely to have higher body mass and to smoke, and these mediators were associated with shorter telomere length, indicating greater cellular aging (Edmonds, Hampson, Côté, Hill, & Klest, 2016). Without the comprehensive childhood personality assessments obtained by Digman, these far-reaching influences of childhood personality would not have been discovered. In the future, this study will provide insights into cognitive and physical resilience as participants enter their seventh and eighth decades.

Jack Digman died on May 25, 1998 of a cerebral hemorrhage; he was anticipating his 75th birthday on June 14th. As a scientist, Jack was most interested in the personality dimension labeled Conscientiousness, but as a human being he personified the factor of Agreeableness. We know of no one in the world who was so universally viewed as considerate, warm, kind, gentle, good-natured, peace-loving, helpful, conciliatory, good-hearted, modest, patient, tolerant, sympathetic, co-operative loyal, and agreeable. In a world that includes snakes and vultures, Jack Digman was one of the rare panda bears.

See Also

Big Five

Conscientiousness

Longitudinal Research

Personality Development Across the Lifespan

Personality Stability and Change Over Time

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