

PROJECT ADMINISTRATION DATA SHEET



ORIGINAL



REVISION NO. _____

Project No. G-42-611 (R6002-0A0)

GTRC/OT

DATE 8 / 22 / 85Project Director: C. K. HertzogSchool XXX

Psychology

Sponsor: DHHS/PHS/NIH/NIAType Agreement: Grant 1 K04-AG00335-01Award Period: From 8/1/85 To 7/31/86 (Performance) 10/31/86 (Reports)

Sponsor Amount:

This ChangeTotal to DateEstimated: \$ _____ \$ 52,366Funded: \$ _____ \$ 52,366Cost Sharing Amount: \$ _____ Cost Sharing No: G-42-314Title: Individual Differences in Adult Cognitive Development

ADMINISTRATIVE DATA

OCA Contact John Schonk x4820

1) Sponsor Technical Contact:

Matilda W. RileyNational Institute of HealthNational Institute on AgingAssociate DirectorBethesda, MD 20205

2) Sponsor Admin/Contractual Matters:

Ruth McClureNational Institute of HealthNational Institute on AgingGrants ManagementBethesda, MD 20205Defense Priority Rating: N/AMilitary Security Classification: N/A(or) Company/Industrial Proprietary: N/A

RESTRICTIONS

See Attached NIH Supplemental Information Sheet for Additional Requirements.

Travel: Foreign travel must have prior approval - Contact OCA in each case. Domestic travel requires sponsor approval where total will exceed greater of \$500 or 125% of approved proposal budget category.

Equipment: Title vests with GIT

COMMENTS:

No funds may be expended after 7/31/86.

COPIES TO:

SPONSOR'S I. D. NO. 02.108.001.85.021Project Director
Research Administrative Network
Research Property Management
AccountingProcurement/GTRI Supply Services
Research Security Services
Reports Coordinator (OCA)
Research Communications (2)GTRC
Library
Project File
Other A Jones

SPONSORED PROJECT TERMINATION/CLOSEOUT SHEET

Date 8-25-1987

Project No. G-42-611

School/Dept Psychology

Includes Subproject No.(s) N/A

Project Director(s) Dr. C. K. Hertzog

GTRC / ~~SPX~~

Sponsor DHHS/PHS/NIH/NIA

Title Individual Differences in Adult Cognitive Development

Effective Completion Date: 7/31/1986 (Performance) 10/31/1986 (Reports)

Grant/Contract Closeout Actions Remaining:

- ☐ None
- ☒ Final Invoice or Final Fiscal Report
- ☐ Closing Documents
- ☐ Final Report of Inventions
- ☐ Govt. Property Inventory & Related Certificate
- ☐ Classified Material Certificate
- ☐ Other _____

Continues Project No. _____

Continued by Project No. G-42-619

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Other A. Dubose
R. Embry
D. Hutchison

IV. Progress Report Summary

Publications

The following publications of the Principal Investigator of direct relevance to the grant-related efforts have been published, accepted, or submitted for publication during the grant period (8/1/85 - present). These publications stem in large part from two projects funded by the National Institute on Aging ("Aging and Cognitive Correlates of Intelligence, PHS Grant No. 7-R01-AG06123-01; "Short-term Change in Memory and Metamemory in the Elderly, PHS Grant No. 7-R01-AG06162-01).

- Dixon, R. A., & Hertzog, C. (1986). A functional approach to metamemory development in adulthood. In F. Weinert & M. Perlmutter (Eds.), Memory development: Universal changes and individual differences. Hillsdale, NJ: Lawrence Erlbaum Associates (in press).
- Dixon, R. A., Hertzog, C., & Hultsch, D. F. (1986). The multiple relationships between metamemory and cognitive abilities in adulthood. Human Learning (in press).
- Dixon, R. A., Hultsch, D. F., & Hertzog, C. (1985). A manual of 25 three-tiered structurally equivalent texts for use in aging research. Unpublished Manuscript.
- Hertzog, C. (1986). On pooling covariance matrices for multivariate analysis. Educational and Psychological Measurement. (in press).
- Hertzog, C., Dixon, R. A., Schulenberg, J., & Hultsch, D. F. (1985). On the differentiation of memory beliefs from memory knowledge: The factor structure of the Metamemory in Adulthood Scale. Unpublished Manuscript.
- Hertzog, C., & Nesselroade, J. R. (1986). Beyond autoregressive models: Some implications of the trait-state distinction for the structural modeling of developmental change. Manuscript submitted for a special section of Child Development on structural equation modeling.
- Hertzog, C., Raskind, C. L., & Cannon, C. J. (1986). Age differences in semantic information processing speed: An individual differences analysis. Journal of Gerontology (in press).
- Hertzog, C., & Rovine, M. (1985). Repeated measures analyses in developmental research: Selected issues. Child Development, 56, 787-810.
- Hertzog, C., & Schaie, K. W. (1986). Stability and change in adult

intelligence: I. Analysis of longitudinal covariance structures. Psychology and Aging, 1, (in press).

Hultsch, D. F., Dixon, R. A., & Hertzog, C. (1986). Memory perceptions and memory performance in adulthood and aging. Canadian Journal on Aging (in press).

Schaie, K. W., & Hertzog, C. (1986). Toward a comprehensive model of adult intellectual development: Contributions of the Seattle Longitudinal Study. In R. J. Sternberg (Ed.), Advances in the Psychology of Human Intelligence (Volume 3). Hillsdale, NJ: Lawrence Erlbaum Associates.

Schaie, K. W., Hertzog, C., Willis, S. L., & Schulenberg, J. E. (1985). Effects of training upon primary ability factor structure. Unpublished Manuscript.

Copies of selected articles and manuscripts are provided in Appendix A.

Report

1. General Scientific Goals. The goals of the RCDA remain the same as originally proposed. It is my intent to develop a research career focusing on individual differences in adult cognitive development, using advanced multivariate design techniques for longitudinal and single-subject panel designs to explore individual differences in development and variables that predict such differences.

2. Concise description of studies. The first year of the RCDA was marked by my transition from Pennsylvania State University to the Georgia Institute of Technology. The move has gone well and my research projects are now firmly established in Atlanta.

Most of the progress on the RCDA has centered around the two funded projects listed above ("Aging and Cognitive Correlates of Intelligence" and "Short-term Change in Memory and Metamemory in the Elderly"). Both projects involve use of multivariate research methods to study individual differences in adult cognitive development. Both projects are in progress, and NIA has been provided with detailed progress reports on each project, both in the form of annual reports and as part of competing continuation grant proposals. I will not provide extended reports of these activities. Appendix B provides copies of report sections sent on each project as part of the competing continuation proposals.

I have also continued to collaborate with K. Warner Schaie and Sherry Willis in their longitudinal study of adult intellectual development. My contributions to their work during this last funding cycle of the RCDA included

a structural equation model for their training study. I have also assisted in the training of their staff in principles of data base management, with an eye to creation of data files needed for multivariate analysis of the Seattle Longitudinal Study's last (1984/1985) wave of data.

3. Specific Objectives for the Coming Year. My objectives include a) continued analysis and report of results from the two funded projects that continue until approximately 1 January 1987; b) to obtain funding to do short-term longitudinal retests in both these projects, for such intraindividual change data is critical for assessing individual differences in patterns of change; c) establishment of a large sample longitudinal panel study of cognition in Atlanta; d) continued theoretical work on adult cognition and research methods needed for its study.

I will also engage in two activities designed to enhance my research development: a) during the summer I will spend 3 weeks at the University of Victoria with David Hultsch and Roger Dixon. This visit, as an unpaid consultant to their research project, will enable me to collaborate on analysis of data collected by Hultsch in Canada as part of our joint investigations of metamemory and memory in adulthood. It will also enable me to interact with a number of excellent neuropsychologists and cognitive psychologists on the faculty at the University; b) I will continue to collaborate with K. Warner Schaie in developing multivariate statistical models for his longitudinal data archive. Schaie's data present interesting methodological opportunities and problems that have served as a catalyst for sharpening my skills. I expect my collaboration to continue to foster my research development.

4. Human subjects. The human subjects protocols have not changed. All research being conducted on human subjects as part of this grant are under human subjects approval for the two funded research projects listed above.

5. Research development. In June, I will attend a workshop on Event History Analysis taught by Paul Allison as part of the ICPSR summer workshop series at the University of Michigan. My participation, funded in part by NIA, gives me the opportunity to expand my repertoire of analysis skills in an important way. Event history analysis may prove to be a useful way to analyze changes in panel data covarying with critical life events. I have also been working with colleagues at Georgia Tech in expanding my knowledge and understanding of substantive domains like cognitive style and typological approaches to human development (Mike Mumford) and methodological domains like structural modeling (Stan Mulaik, Larry James). In the past year I attended 3 scientific meetings and gave papers there: American Psychological Association (Los Angeles), Gerontological Society (New Orleans), and West Virginia's Life-span development conference (Morgantown).

6. Other activities. I have devoted myself full-time to the research career, with the blessing of the School Director. I have, on a volunteer basis, taught 3 weeks in the Psychology Proseminar (the section on Developmental Psychology). This stint gave me the opportunity of meeting and recruiting first-year graduate

students to work on my research projects. It also enabled me to get a teaching evaluation for the purpose of tenure review at Georgia Tech (I will be reviewed during the next academic year). I have also taught an informal seminar to my own research group on applied regression analysis, LISREL etc., but this has been for the purpose of training my own research staff. With respect to administrative duties in the School of Psychology, I have been essentially exempted from service. I did participate in the search process for new faculty in adult development and aging, and was instrumental in recruiting Tim Salthouse to come to Georgia Tech. I will also participate in the recruitment of a junior person for next year. We are in the process of building an exciting program in cognitive aging here, and my involvement in this process is essential. During Spring Quarter I have advised the Curriculum Committee on my views regarding graduate training in research design and statistics. I have been an outspoken proponent of enhancing the practical skills training (e.g., mainframe computer exercises) in the first-year training sequence, and hence have, on a volunteer basis, attended some of the curriculum committee meetings. The percentage of time spent in departmental service, teaching the proseminar, etc. has been minimal and inconsistent. During the peak demand in spring quarter I would guess it to be about 5%. It was less than 1% during fall and winter quarters.

I mentioned above that I have spent time collaborating with Warner Schaie, Sherry Willis, and their project. I see this collaboration as important to my research career; it has generated, and will continue to generate, research publications and important scientific data on adult cognitive development. I have also continued to collaborate, at long distance, with other colleagues at Penn State, including John Nesselrode. He and I have written a paper on structural modeling of psychological states, which is an important part of the work I am doing for the project, "Short-term Changes in Memory and Metamemory in the Elderly." I have also served as a member of APA's Division 20 (Adult Development and Aging) Executive Committee, have served as a reviewer of journal articles, etc. All these activities are an important part of the professional role of a scientist, and contribute indirectly to my research career development by fostering a national (and even international) network of colleagues in my own and allied disciplines.