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OCA PAD INITIATION - PROJECT HEADER INFORMATION

08/12/88

Active

Project #: G-42-609
Center #: R6002-3A0

Cost share #:
Center shr #:

Rev #: 0
OCA file #:
Work type : RES
Document : GRANT
Contract entity: GTRC

Contract#: 5 K04 AG00335-04
Prime #:

Mod #:

Subprojects ? : N
Main project #:

Project unit: PSYCH
Project director(s):
HERTZOG C K PSYCH

Unit code: 02.010.154

Sponsor/division names: DHHS/PHS/NIH
Sponsor/division codes: 108

/ NATL INSTITUTES OF HEALTH
/ 001

Award period: 880801 to 890731 (performance) 891031 (reports)

Sponsor amount	New this change	Total to date
Contract value	59,550.00	59,550.00
Funded	59,550.00	59,550.00
Cost sharing amount		0.00

Does subcontracting plan apply?: N

Title: INDIVIDUAL DIFFERENCES IN ADULT COGNITIVE DEVELOPMENT (RCDA)



PROJECT ADMINISTRATION DATA

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894-4820

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GRANTS MANAGEMENT OFFICE, NIH/NIA
BETHESDA, MD 20892

Security class (U,C,S,TS) :

Defense priority rating :

Equipment title vests with: Sponsor
NONE AUTHORIZED

ONR resident rep. is ACO (Y/N): N
supplemental sheet
GIT

Administrative comments -

INITIATION. 4TH YEAR OF GRANT RECOMMENDED FOR SUPPORT FOR 5 YEARS.

GEORGIA INSTITUTE OF TECHNOLOGY
OFFICE OF CONTRACT ADMINISTRATION

NOTICE OF PROJECT CLOSEOUT

Closeout Notice Date 03/27/90

Project No. G-42-609 _____

Center No. R6002-3A0 _____

Project Director HERTZOG C K _____

School/Lab PSYCH _____

Sponsor DHHS/PHS/NIH/NATL INSTITUTES OF HEALTH _____

Contract/Grant No. 5 K04 AG00335-04 _____ Contract Entity GTRC

Prime Contract No. _____

Title INDIVIDUAL DIFFERENCES IN ADULT COGNITIVE DEVELOPMENT (RCDA) _____

Effective Completion Date 890731 (Performance) 891031 (Reports)

Closeout Actions Required:	Y/N	Date Submitted
Final Invoice or Copy of Final Invoice	Y	900314
Final Report of Inventions and/or Subcontracts	N	_____
Government Property Inventory & Related Certificate	N	_____
Classified Material Certificate	N	_____
Release and Assignment	N	_____
Other _____	N	_____
CommentsANNUAL REPORT SUBMITTED WITH CONTINUATION PROPOSAL. _____		

Subproject Under Main Project No. _____

Continues Project No. _____

Distribution Required:

Project Director	Y
Administrative Network Representative	Y
GTRI Accounting/Grants and Contracts	Y
Procurement/Supply Services	Y
Research Property Management	Y
Research Security Services	N
Reports Coordinator (OCA)	Y
GTRC	Y
Project File	Y
Other _____	N
_____	N

Progress Report Summary

1. Brief Summary of Plans

My plans are simple: (1) complete data collection activity on my remaining funded research project (R01 AG06123), (2) write empirical research articles reporting data from both research projects (R01 AG06162 and R01 AG06123), and (3) develop a new grant proposal to begin after completion of the RCDA.

2. Description of Studies

During the funded period we completed analysis of several studies associated with AG06162, a project studying metamemory and memory functioning in adults conducted in collaboration with R. A. Dixon and D. F. Hultsch, University of Victoria, Canada. A study of metamemory, performance predictions, and memory task performance was completed, reported at the Gerontological Society Meeting, and submitted for publication. The major findings were (1) performance predictions are associated with general memory self-efficacy beliefs, (2) the accuracy of performance predictions increases with exposure to memory tasks, (3) there were no age differences in accuracy of predictions, (4) there are large age differences in memory task performance that are consistent with age differences in memory self-efficacy and memory task predictions. Data from a replication study was coded, and analysis has begun. Data on a new performance prediction experiment is currently being collected.

The validation study of the two major metamemory questionnaires continued, with additional evidence regarding the relationship between metamemory and depressive affect. A study showed that measures of depression and affective states (including the CES-D depression screening instrument) had acceptable measurement properties in age-heterogeneous samples. We then analyzed relationships of depressive affect to metamemory. There was a significantly greater relationship of depressive affect to ratings of frequency of forgetting, as measured by the MFQ questionnaire, than to general statements regarding quality of memory, as measured by the MIA questionnaire.

An intraindividual panel study of elderly women was completed, and data analysis begun. Seven women, age 67 and older, participated for approximately two-years by completing questionnaires and taking memory tests once a week. Data analysis of a text recall performance showed marked differences in patterns of change over the two-year period, with some individuals increasing, some decreasing over time. The study employed 25 structurally equivalent stories as texts to be recalled. There were significant

differences in recall, with stories that included female protagonists and feminine sex-role appropriate thematic material recalled better by the women than other stories. Thematic relevance of the material to be remembered may ultimately prove to influence estimated age differences in text recall.

An additional study, accepted as a paper presentation for the upcoming American Psychological Association meeting, examined two-year longitudinal data on metamemory and memory performance. There were no changes over time in mean levels of metamemory scales, and individual differences in metamemory were highly stable, suggesting that memory self-efficacy beliefs do not change markedly over two years. Additional data analysis of changes in memory performance will be completed for the presentation.

A set of studies associated with the other project (AG06123, Cognitive Correlates of Intelligence) were completed and are being written for publication. Briefly, we extended previous work on mental rotation by examining our data for outliers and unusual patterns of the function relating RT and error rates to Angle of rotation. We found (1) skewed RT parameter distributions for young and old subjects, with much greater skew for old (suggesting small number of old persons with very long intercepts and slopes), (2) larger number of older subjects with low coefficients of determination, indicating either flat or nonlinear functions, and (3) influence of both factors on size of estimated age differences. These results were reported at the Psychonomic Society meetings last November.

Debra Grover and I conducted analyses relating perceived intellectual control, as measured by Lachman's PIC scale, with intelligence test performance. Age reduced internal intellectual control beliefs and increased external control beliefs. Reliance on others for intellectual functioning correlated with psychometric test performance, even after partialling chronological age. Cross-lagged correlations in two-year longitudinal data suggested an influence of intelligence test performance on control beliefs, but not vice versa.

Several other analyses are in progress on this data set.

Human Subjects

Human subjects protocols did not change during the proposed period.

4. Not Applicable.

5. Publications.

The following citations were published, accepted, or submitted for publication during the current funding cycle:

Journals

Dixon, R. A., Hultsch, D. F., & Hertzog, C. (1988). The Metamemory in Adulthood (MIA) questionnaire. Psychopharmacology Bulletin, 24, 671-688.

Lerner, J. V., Hertzog, C., Hooker, K., Hassibi, M., & Thomas, A. (1988). A long-term longitudinal study of negative emotional/behavioral states and adjustment. Child Development, 59, 356-366.

Hertzog, C. (in press). The influence of cognitive slowing on age differences in intelligence. Developmental Psychology.

Hertzog, C., Hultsch, D. F. & Dixon, R. A. (in press). Evidence for the convergent validity of two self-report metamemory questionnaires. Developmental Psychology.

Hertzog, C., Van Alstine, J. L., Usala, P., Hultsch, D. F., & Dixon, R. A. (in press). Measurement properties of the Community Epidemiological Studies - Depression scale (CES-D) in older populations. Psychological Assessment: A Journal of Consulting & Clinical Psychology.

Book (Chapters)

Dixon, R. A., & Hertzog, C. (1988). A functional approach to metamemory development in adulthood. In F. Weinert & M. Perlmutter (Eds.), Memory development: Universal changes and individual differences (pp. 293-330). Lawrence Erlbaum Associates.

Hultsch, D. F., Hertzog, C., Dixon, R. A., & Davidson, H. (1988). Memory self-knowledge and self-efficacy in the aged. In M. L. Howe & C. J. Brainerd (Eds.), Cognitive development in adulthood: Progress in cognitive development research (pp. 65-92). New York: Springer.

Hertzog, C. (1989). Using confirmatory factor analysis for scale development and validation. In M. P. Lawton & A. R. Herzog (Eds.), Special research methods for Gerontology (pp. 281-306). New York: Baywood Press.

Hertzog, C. (in press). On the utility of structural regression models for developmental research. In P. B. Baltes, D. L. Featherman, & R. M. Lerner (Eds.), Life-span development and behavior (Vol. 10). Hillsdale, NJ: Lawrence Erlbaum Associates.

Hertzog, C., & Schear, J. M. (in press). Psychometric considerations in testing the older person. In T. Hunt & C. J. Lindley (Eds.) Testing the older person. Kansas City, MO: Test Corporation of America.

Unpublished Manuscripts

- Hertzog, C. (1989). Repeated measures analysis in developmental research: What our ANOVA text didn't tell us. Draft chapter under review.
- Hertzog, C., Dixon, R. A., & Hultsch, D. F. (1989). Relationships between metamemory, memory predictions, and memory task performance in adults. Manuscript under review.
- Hultsch, D. F., Hertzog, C., Dixon, R. A. (1989). Ability correlates of memory performance in adulthood and aging. Manuscript under review.
- Usala, P., & Hertzog, C. (1989). Measurement of affective states in adults: Evaluation of an adjective rating scale instrument. Manuscript under review.

Book Reviews

- Hertzog, C. (1988). Adult cognition and aging: Developmental changes in processing, thinking, and knowing (J. M. Rybash, W. J. Hoyer, & P. A. Rodin). Gerontologist, 28, 133.
- Hertzog, C. (in press). Structural equation modeling with LISREL: Essentials and advances (L. A. Hayduk). Journal of Marketing Research.

6. Research Development.

I have spent time working with John C. Cavanaugh and Jack Feldman at Georgia Tech developing ideas for applications of social cognitive perspectives to understanding questionnaire responses, such as with measures of memory self-efficacy.

I traveled twice to Victoria, British Columbia, to work with my colleagues Hultsch and Dixon on journal manuscripts and future research plans.

I gave papers at the Cognitive Aging Conference (Atlanta, GA), American Psychological Association (Atlanta), Psychonomic Society (Chicago), and the Gerontological Society (San Francisco). I will present a paper at the upcoming International Congress of Gerontology (Acapulco, June 1989), and will serve as a workshop instructor in June and July (see below).

7. Other Activities

I have devoted myself to full-time work on my research, except for some duties as a departmental citizen. I did chair the Student/Faculty Relations committee.

I have also served as a member of a study section grant review panel for the National Institute of Mental Health, and have done a fair amount of work as a member of several

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editorial boards, ad hoc grant reviews for NSF and NIH, and some consulting relationships.

In June I will serve as an instructor in a workshop on causal modeling to be given at the Woods Hole Summer Institute (sponsored by the MacArthur Foundation). In July I will give an intensive advanced workshop on structural modeling at the Pennsylvania State University. While there I will work with John R. Nesselroade and Phillip Wood learning more about dynamic factor analysis models that can be applied to my intraindividual panel study data.

8. Research Development/Next Year

I will continue to work closely with colleagues at Georgia Tech to refine my methodological skills and knowledge of aging research. My main goal is to generate journal articles and book chapters reporting the wealth of results from my current research projects.

9. Sponsor's Report. (Please see attached sheet).