

Advanced Psychometric Methods in Cognitive Aging Research

Measuring and Modeling Early Cognitive Decline

Friday Harbor Laboratory
University of Washington
September 13 - 18, 2015

Acknowledgements

- Funded in part by Grant R13AG030995 from the National Institute on Aging
- The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services; nor does mention by trade names, commercial practices, or organizations imply endorsement by the U.S. Government.

Meeting Structure

- Monday
 - Scientific symposium – Early cognitive decline and the aging brain
 - Workgroup organization
- Tuesday- Thursday AM – workgroups
- Wednesday afternoon – Free (weather?)
- Thursday PM – Workgroup presentations, wrap up, planning

Meeting Goals

- Promote collaborative science
- Build networks of collaborators
- Train and broaden skill sets of new and established investigators
- Promote advanced psychometric and statistical methods
- Methods in service of **SCIENCE**

Meeting Expectations

- Learn something new and have fun doing it
- Conceptualize and develop collaborative projects in small workgroups
- Initiate literature review
- Plan and initiate data analysis
- Establish investigator teams and plan to complete projects and manuscripts
- Publish scientific findings

Datasets

- Alzheimer's Disease Neuroimaging Initiative
- Framingham Heart Study
- Rush ADRC
 - Religious Orders Study
 - Memory and Aging Study
 - Minority Aging Research Study

Workgroups

- Dynamic sequencing of disease related brain changes and cognition
- Differentiate normative and pathological aging cognitive trajectories
- Identify best cognitive predictors of brain changes associated with diseases of aging
- Examine how measurement methods and psychometric characteristics affect test validity

Acknowledgements

- Alzheimer's Disease Neuroimaging Initiative (ADNI)
 - Mike Weiner and many, many others
- Rush ADRC
 - David Bennett, Bryan James, and many, many others
- Framingham Heart Study
 - Sudha Seshadri, Rhoda Au and many, many others

Acknowledgements

- UC Davis Alzheimer's Disease Center
 - Charles DeCarli, Jayne Lagrande

Organizing Committee

- Paul Crane
- Laura Gibbons
- Maria Glymour
- Alden Gross
- Rich Jones
- Jennifer Manly
- Dan Mungas

Logistics, Administration, Management

- Shelly Allocco
 - Pre and post-conference
- Pega Davoudzadeh
 - Onsite

Dataset Creation and Dissemination, Software Installation

- Laura Gibbons
- Elizabeth Sanders

Compliance Division

Completion of Lecture and Conference Evaluations

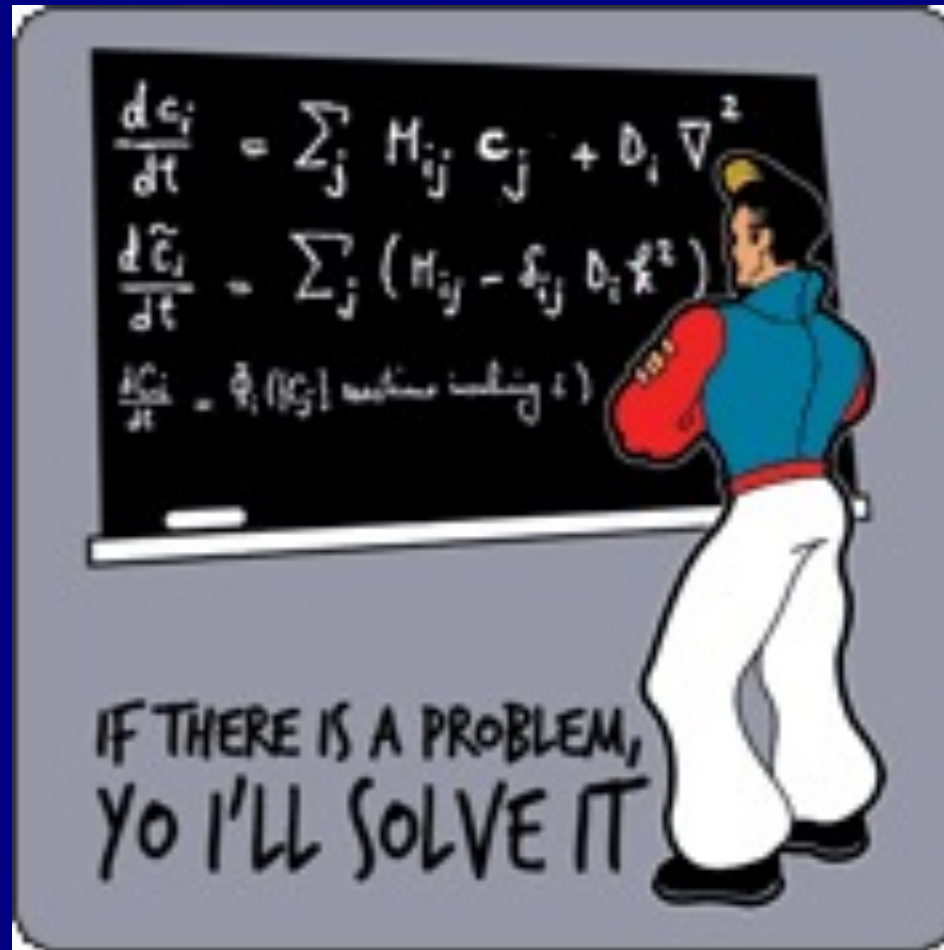
- Jennifer Manly

Introductions

Questions to Answer

- Introduce yourself
 - Who are you
 - Where are you from
 - What would you like people to know about you
- If all cell phones disappeared tomorrow
 - Would your life be better or worse
 - What would you miss the most

Conference Slogan Competition - 2010



2010 Conference Slogan Contest

It's the thought that counts

2010 Conference Slogan Contest

ICCs: The not so slippery slopes

2010 Conference Slogan Contest

I know it's only latent growth but
I like it

2010 Conference Slogan Contest

Friday Harbor Psychometrics:
... but we go to 11

2010 Conference Slogan Contest

Friday Harbor Psychometrics:
Theta is not a 4 letter word.

2011 Competition - Best Quote

- Rules
 - Must be something somebody actually said
 - Can be related in some way to science, neuroimaging, genetics, Alzheimer's disease, cognition, psychometric methods, data analysis
 - Extra points if it has appeared on the Colbert Report

Examples (already taken)

“What a waste it is to lose one’s *mind*,
or not to have a *mind* as being truly wasteful.
How true that is.”

--Dan Quayle

“Essentially, all models are wrong, but some are useful.”

--George Box

“The scientist is not a person who gives the right answers, he's one who asks the right questions.”

--Claude Lévi-Strauss

“Some scientists work so hard there is no time left for serious thinking.”

--Francis Crick

“If everything seems under control you’ re
just not going fast enough.”

--Mario Andretti

“Tact is taking time to think before saying
nothing.”

--sign posted outside of a church

“When an idea is lacking, a word can always
be found to take its place.”

--from W. E. Deming who attributed it to Goethe

“A professor is someone who talks in
someone else’s sleep.”

--from W. H. Auden

“Confidence: The feeling you have just before you understand the situation.”

--from Our Daily Bread, July 10, 2010

“... discreet cosines.”

--from Charles DeCarli

What happens in Friday Harbor stays in Friday Harbor!

"The Alzheimer's Association is well-endowed thanks to the Weiner App."

--undisclosed source, Friday Harbor, 6/7/11

“If the model doesn't converge, you're toast.”

--Laurel Beckett

Who says we're not on the front line!

"It's a firehose of data."

--Paul Crane

Definite first-responder theme!

“Ladies and gentlemen, start you engines.”

--Indy 500 Starter

Stay off the wall on the last lap!

“My legs are sore.”

--anonymous

“We don’ t need computers, we just need a
rock.”

--Alden Gross



“You don’ t know Jack.”

--folk saying

“Don’ t lose your head to gain a minute. You need your head. Your brains are in it.”

--Burma Shave sign