

Conceptual Models for Understanding the Health Benefits of Performing Arts Programs for Older Adults

Linda S. Noelker, Ph.D.
Benjamin Rose Institute on Aging
Cleveland, Ohio

Melissa Castora-Binkley, M.A.
University of South Florida
Tampa, Florida

Miriam Rose, M.Ed.
Benjamin Rose Institute on Aging
Cleveland, Ohio

Presented at the annual meeting of the Gerontological Society of America, Boston, Massachusetts, November 20, 2011.

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Models Used for Research on Benefits of Physical Activity

Belief and Attitude Models

Theory of Planned Behavior (TPB)

Behavior change: directly predicted by intention which is influenced by attitude (beliefs about exercise & outcomes) and by subjective norms (beliefs of significant others/motivation to comply)

Perceived Behavioral Control: directly affects intention and thus behavior change when perceived and actual control over the behavior are aligned

Theory of Planned Behavior Findings

- Some evidence regarding relationships between attitude and perceived control on intention, but these have weaker relationships to behavior change
- Unidirectional model
- Focused only on perceptions as predictors

Models Used for Research on Benefits of Physical Activity

Competence-based Models

Self-Efficacy Theory

Behavior Change: affected by self-efficacy beliefs and outcome expectations

The latter two are influenced by:

- mastery experiences (behavioral),
- modeling (cognitive),
- verbal persuasion (social), and
- interpretation of emotional & physiological arousal (physiological)

Self-Efficacy Findings

- One of the more successful theories
- Self-efficacy more powerful than outcome expectations
- Self-efficacy added to other models (e.g., Trans-theoretical Model)

Models Used for Research on Benefits of Physical Activity

Control-based Models

Self-Determination Theory

Behavior Change: affected by intrinsic and extrinsic motivation

- Extrinsic Motivation: external regulation (must do), internal regulation (guilt, approval seeking), identified regulation (wants to rather than ought to)
- *Intrinsic Motivation: enjoyment, fun of the activity itself*
- Relative Autonomy Index: higher scores for identified regulation and intrinsic motivation
- Evidence supports the important role of perceived autonomy in exercise motivation

Control-based Models: Trans-theoretical Model

Behavior Change: incorporates cognitive (decision making), behavioral (processes) and temporal (stages of change) aspects

Posits stages of change (time dimension along which behavior changes occur with relapses to earlier stage common) : pre-contemplation, contemplation, preparation, action, maintenance

Posits processes of change (strategies for progression): 1) experiential (e.g., information seeking, emotional expression); 2) behavioral (e.g., use social support, reward new behavior)

Decisional balance: pros (approval & instrumental gains) of change and cons (disapproval & losses) of change

Evidence for Trans-theoretical Model

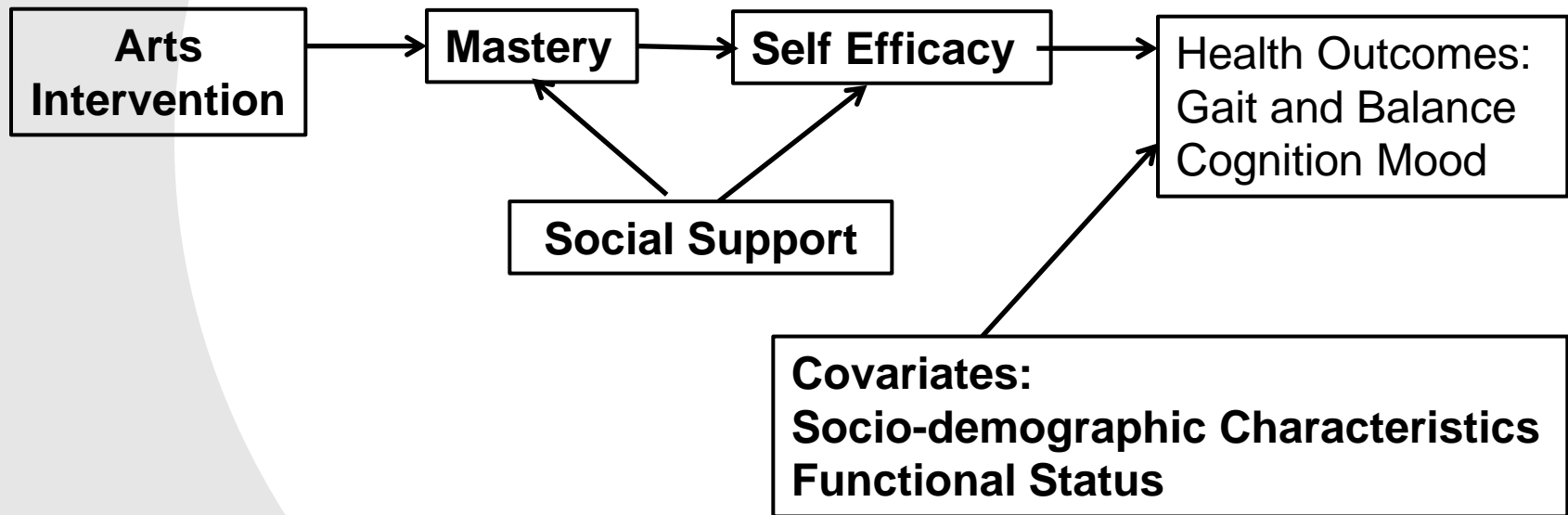
- Pros increase and cons decrease across the stages
- Measures developed & validated; used in research on a variety of health behaviors
- Inclusion of concrete strategies for interventions at each stage appeals to practitioners
- Incorporation of self-efficacy into model with evidence of increased efficacy across stages

Self-Efficacy and Older Adults

- Some research shows the relationship between self-efficacy and behavior change is indirect, operating through functional limitations
- Mastery informs efficacy beliefs: participant skill building, feedback to & between participants, modeling of desired behaviors by respected person, mastery of smaller components of activity, social support, and guidance in self-management of the activity
- High self-efficacy associated with more positive outcome expectations, higher goals, and use of coping skills to overcome barriers

Conceptual Model for Health Benefits of Performing Arts Participation

Social Cognitive Model for the Health Benefits of Performing Arts



Older Adults' Participation in Performing Arts Programs

- Types: dance, theatrical training, chorales
- Populations: Parkinson's disease, breast cancer survivors, arthritis, community-dwelling "well" elderly
- Unique components: artistic expression, mastery of sequenced movements, recall of steps, movements & script, social integration, escape from stress, music as external cue to facilitate movement, teaches movement strategies (e.g., moving backward)
- Advantages: higher intrinsic motivation (encourages fun and enjoyment), culturally-specific forms, no expensive equipment needed, performed in a variety of settings, should include trainer's manual and program guide

Consequences of Unique Components and Advantages

- Promote uptake, retention and continued participation (*Reach, Efficacy, Maintenance*)
- Promote *Adoption*
- Facilitate *Implementation* (manuals and guidebooks)
- Lends itself to *Reinvention*

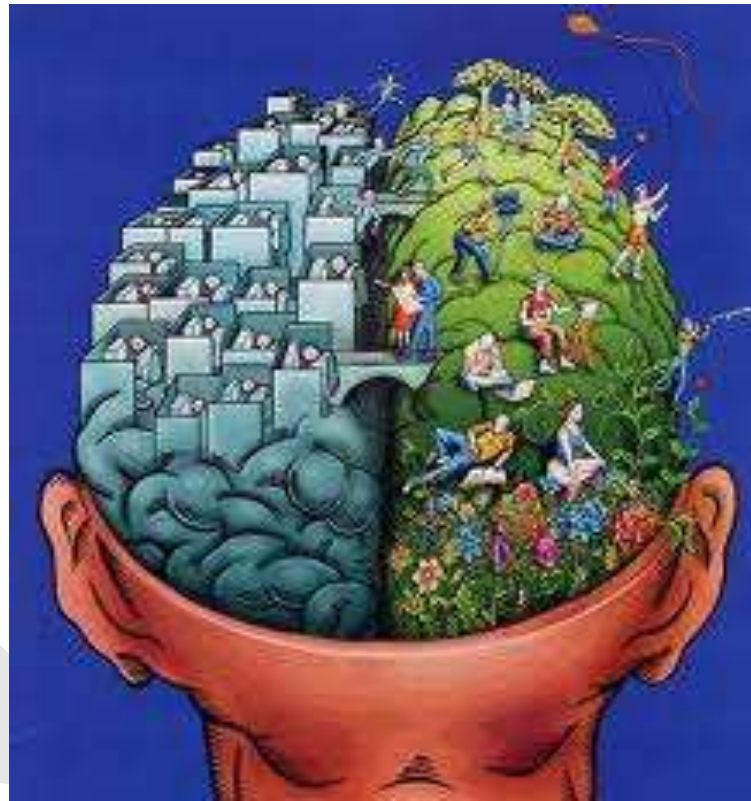
Health and Well-being Benefits

- Static and dynamic balance, gait, walking speed, aerobic power, muscle endurance, strength, lower body flexibility
- Mood, anxiety, depression
- Cognitive functioning: immediate and delayed recall; way finding, verbal fluency

Cognitive Compensation

HAROLD:

Hemispheric Asymmetric Reduction
in OLDer adults

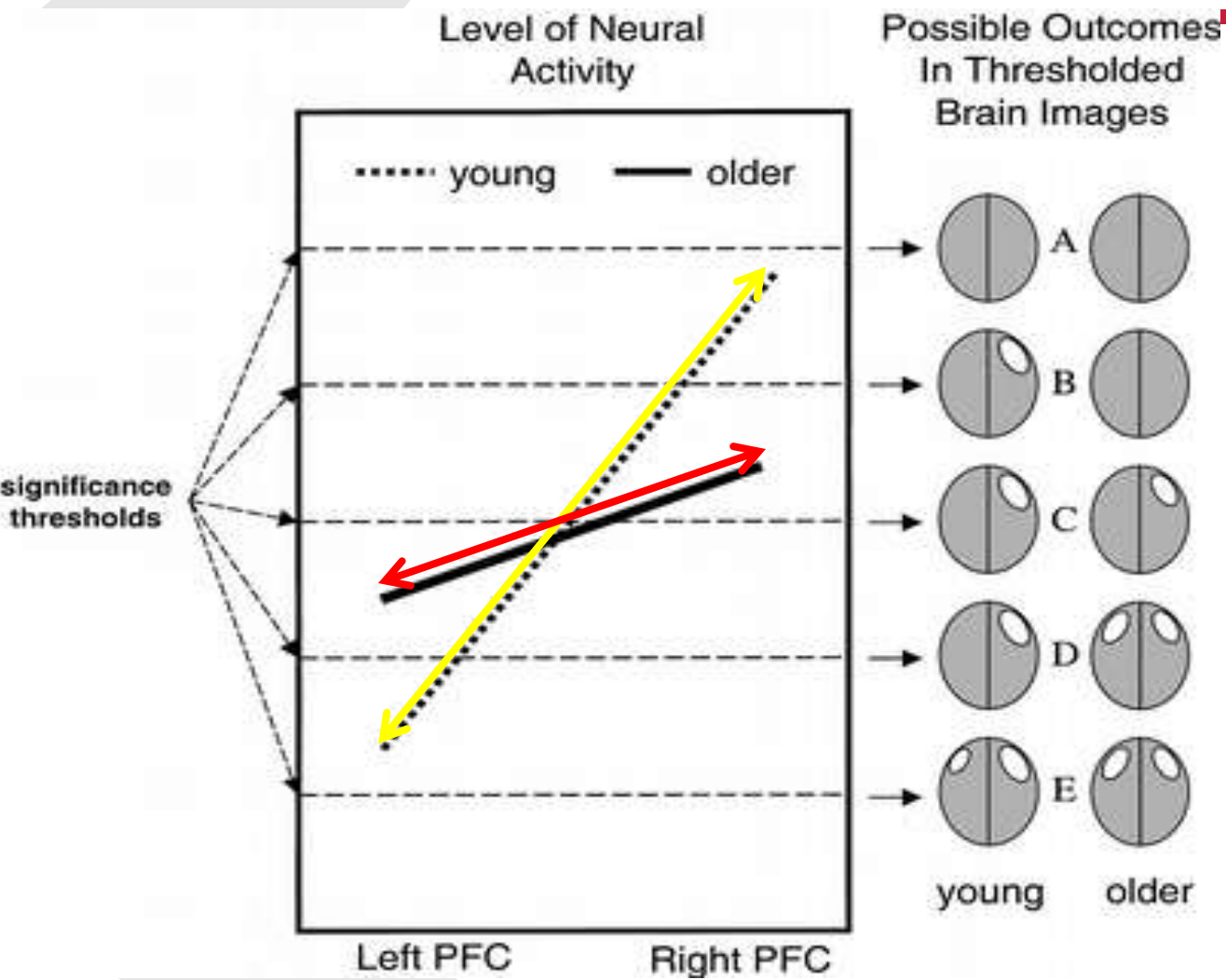


Neuro-plasticity

- **Alternate networks utilized**
- **Compensatory scaffolding model**
 - Frontal recruitment
 - Neuro-genesis
 - Distributed processing
 - Bi-lateralization



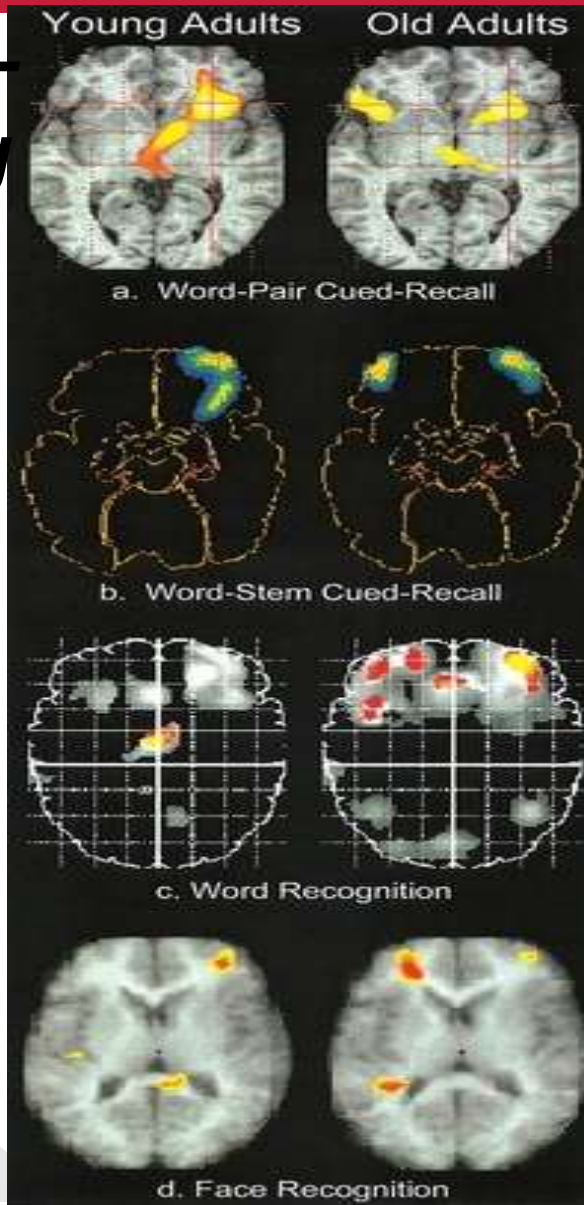
HAROLD



Simulated data that represents hemispheric asymmetric reduction in older adults and right lateralized activity in younger adults (Cabeza, 2002).

HAROLD

Functional neuroimaging of young and old adults: Evidence of hemispheric asymmetric reduction (Cabeza, 2002).

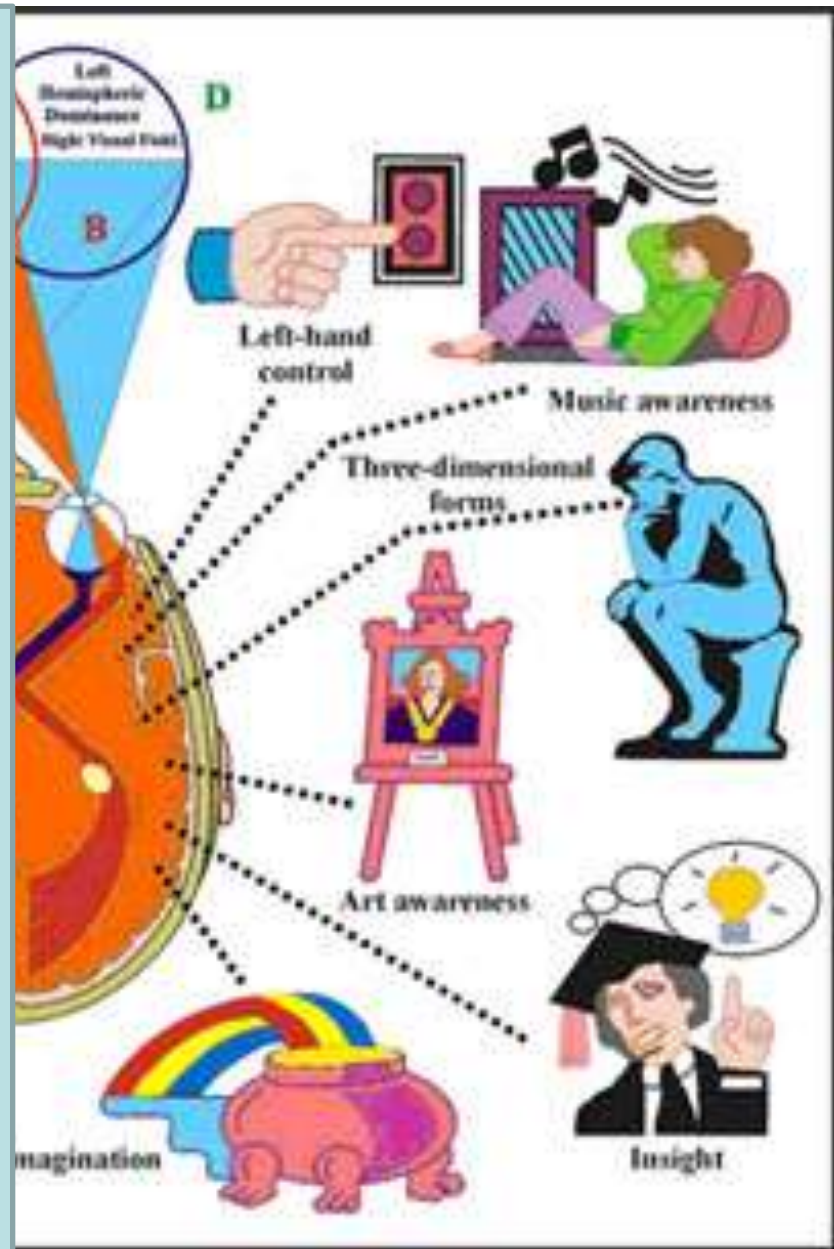


HAROLD



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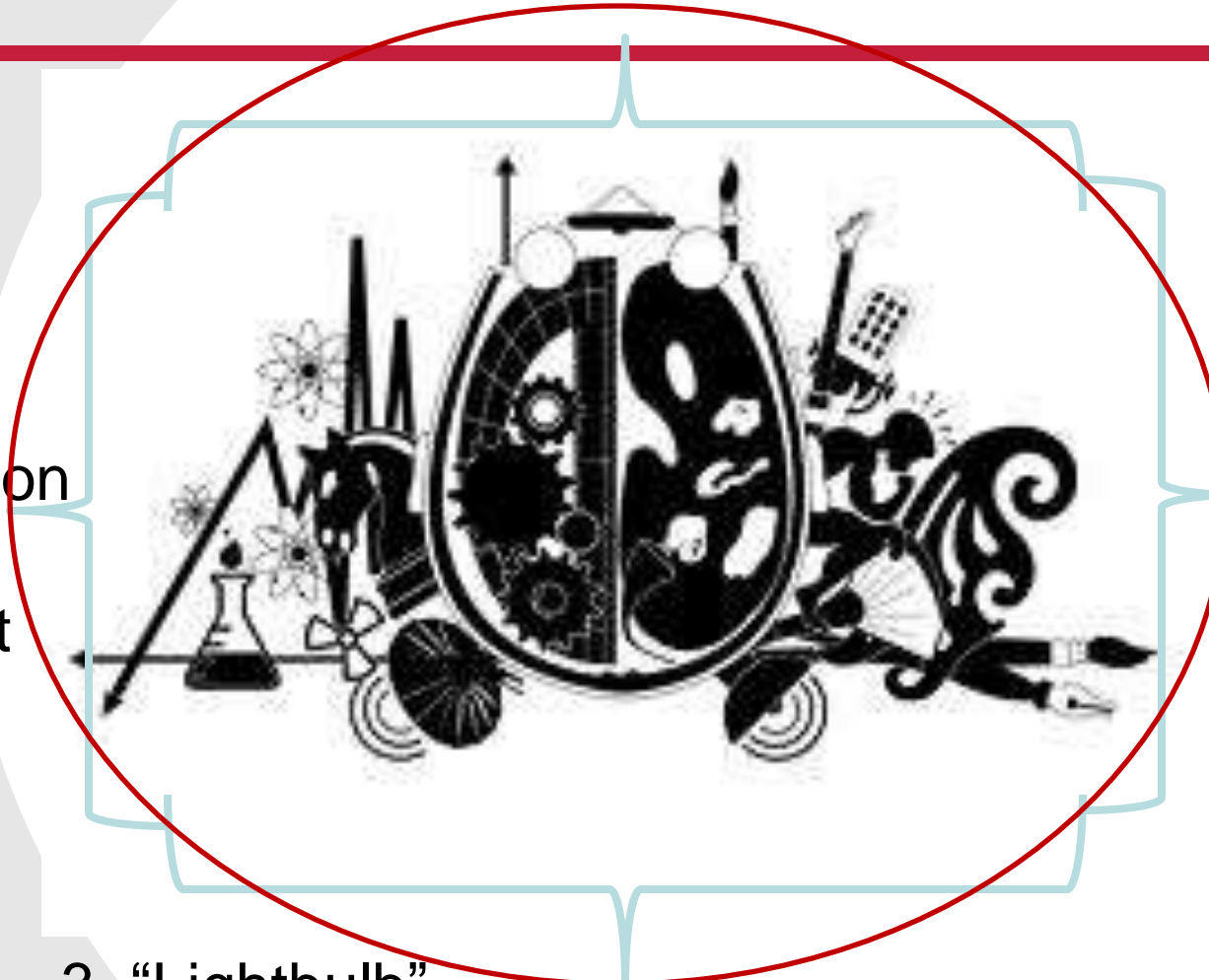
Creativity





1. Preparation (broad neural processing with left emphasis)

4.
Organization
and
refinement



2.
Incubation
(right
emphasis)

3. “Lightbulb”
(inter-hemispheric communication via
corpus collosum)

HAROLD



CREATIVE CAPACITY

Age
(Innovators,
Experimentalists, Late-life
beginners)

Brain
(Left hemisphere emphasis,
right hemisphere emphasis,
bilateralized functioning)

HAROLD
(age * brain)

Enhanced /
Initial Creative
Capacity in
Late Life

Thank you!

Questions or comments?

www.benrose.org

Inoelker@benrose.org

mrcbinkley@gmail.com