

Relationships Between Attentional Traits and Media Multitasking Behavior

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Goal

Determine how media multitasking relates to other behaviors, personality traits, and characteristics

Previous Work

- **Media Multitasking:** Consuming more than one source of media at a time (e.g., reading while watching TV)
- Heavy Media Multitaskers are more impacted by visual distraction than Light Media Multitaskers:
 - More slowed by distractors presented between cues and targets in N-back and AX-CPT paradigms (Ophir et al., 2009)
 - More errors due to irrelevant distractors in a change detection task (i.e., smaller working memory span; Ophir et al., 2009)
 - Slower at withholding planned responses in a stop-signal task (Cain et al., Psychonomics 2010)
 - More distracted by color singletons that were known to be irrelevant (Cain et al., In press)

Regression Methods

- Variables were divided categorically into 4 models
 - Pastimes, Demographics, Personality, and Clinical
- Separate regressions were performed for each model
 - Outliers in two or more models were removed from all models
- Significant factors ($p < .05$, uncorrected) were combined into a *Composite Model* to compare relative predictive power of each factor
- Seven factors were significant in the composite model

Composite Model

Measures	Std. β	t	p
Watching TV/Movies	0.212	3.76	<0.001
Listening to Music	0.211	3.74	<0.001
Gender	0.207	3.41	0.001
Sports/Racing Video Games	0.195	3.24	0.001
ADHD Symptoms	0.163	2.86	0.005
Age	0.146	2.57	0.011
Attention Switching (ASQ)	-0.125	-2.23	0.026
Handedness Preference	-0.060	-1.07	0.287

Females multitasked media more often than males did

Expertise with Sports & Racing games—but not other genres—predicts media multitasking behavior

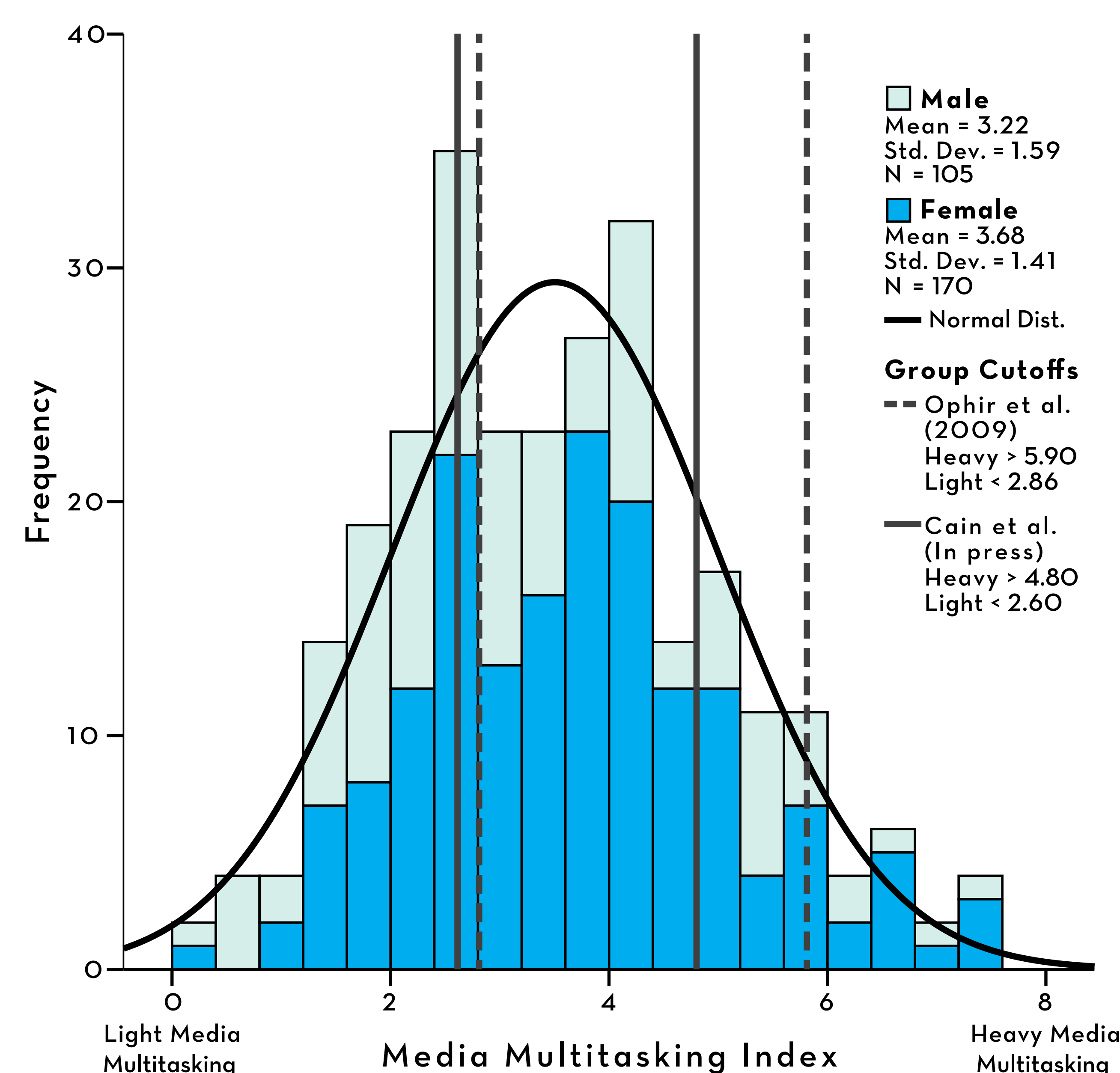
Stronger ADHD symptoms predicted more media multitasking

Individuals who are better able to switch tasks are more likely to media multitask

Media Multitasking Index

How often *multiple* media are consumed, normalized by total media consumption, based on questionnaire responses about 12 different media (Ophir et al., 2009)

- 275 Duke community members
 - 18-58 years old (Mean=21.3)
- Media Multitasking Index: Mean=3.50; Stdev=1.49



Pastimes

Adjusted $R^2=0.124$ $p < 0.001$

Measures	p
Video Game Expertise:	
Action/Platformer	0.460
Dexterity/Rhythm	0.957
Fighting	0.713
First-/Third-Person Shooter	0.639
Logic/Puzzle	0.700
Roleplaying/Real-time Strategy	0.971
Sports/Racing	0.007
Pastimes (hrs/wk)	
Reading	0.784
Watching TV/Movies	0.002
Listening to Music	<0.001
Playing Video Games	0.506
Exercising/Sports	0.443
Playing an Instrument/Singing	0.337

Demographics

Adjusted $R^2=0.061$ $p < 0.001$

Measures	p
Age	0.003
Gender	0.006
Handedness Preference	0.048

Personality Factors

Adjusted $R^2=-0.013$ $p < 0.928$

Measures	p
Revised NEO Personality Inventory:	
Neuroticism	0.726
Extraversion	0.685
Openness	0.471
Agreeableness	0.955
Conscientiousness	0.506

Clinical Symptoms

Adjusted $R^2=0.065$ $p=0.084$

Measures	p
ADHD Symptoms	0.049
Eating Attitudes Test	0.258
Autism Spectrum Questionnaire	
Social Skill	0.602
Attention Switching	0.015
Attention to Detail	0.804
Communication	0.458
Imagination	0.391
Barratt Impulsiveness Scale	
Attentional	0.727
Motor	0.384
Non-Planning	0.779

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