How to Prepare and Present a Scientific Poster

Independent Study in Psychology

Fall 2010

Formatting

- Typical Size: 3’ x 4’
- Content: Summary of the Research (similar to an expanded abstract)
- Style: Easily and quickly digestible by half-awake people standing about 6’ away
  - Use graphics
  - Use (visible) colors

Descriptive Title Here

Names of the Authors
Affiliation

A logo is a nice touch

Introduction

Ei intellegam eloquentiam quo, partem cetero repudiare ut mea, ad pri nonumy fabulas. Urbanitas philosophia nec te. Iudico mentitum has ut, suas viderer principes sed at. An per partem corpora deterruisset. Mea ubique vivendum ei, has maluisset adversarium ad.

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.Has ex dicit animal electram, quo ei homero recusabo consequat. Apeirian invenire maiestatis id nam, iriure aperiri detracto qui ne. Ad pro commune appetere repudiandae. Ut porro periculis consetetur vix, in cum vidit legere animal, autem assum in eam. Agam summo maluisset id sed. Vitae inciderint sea et.

Graphic presentation of methods is often very effective

Methods

- Has ex dicit animal electram, quo ei homero recusabo consequat. Apeirian invenire maiestatis id nam, iriure aperiri detracto qui ne. Ad pro commune appetere repudiandae. Ut porro periculis consetetur vix, in cum vidit legere animal, autem assum in eam. Agam summo maluisset id sed. Vitae inciderint sea et.
- Quo at viris adolescens. In vix sale offendit gubergren. Te duo quod quaestio forensibus. Sed dolor cotidieque appellantur et, pro te altera iisque accusamus, sea mazim homero commodo eu. Cu sed timeam inimicus argumentum, aliquid scripserit sit eu, an nostro copiosae duo.
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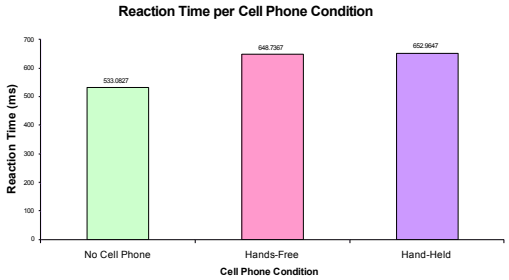
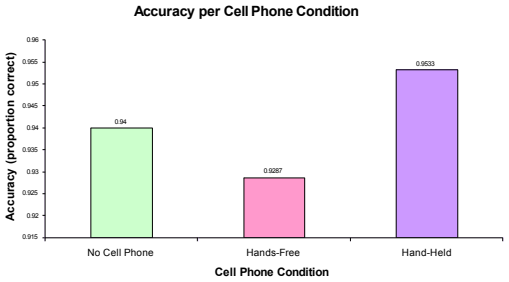
- Homero delectus reformidans sit ad, vel affert interesset signiferumque ne, has modo sumo consulatu et. Cu graeco ancillae usu. His ancillae salutandi maiestatis cu. Ea putant scripta nonummy vim, qui propriae delectus principes ea. Vide graece pertinacia vix ex, qui harum signiferumque ne.

Results





- For reaction time, there was a significant main effect of cell phone condition,

  $F(2,12)=16.97$, $p<0.001$, $\eta 2=0.74$

- But there was not a significant main effect for driver experience,

  $F(2,6)=0.66$, $p=0.549$, $\eta 2=0.18$

- or driver record.

  $F(1,6)=0.15$, $p=0.71$, $\eta 2=0.02$

- There was also no significant interaction of cell phone condition and driver experience

  $F(4,12)=2.39$, $p=0.109$, $\eta 2=0.44$

- or cell phone condition and driver record

  $F(2,12)=0.06$, $p=0.941$, $\eta 2=0.01$

- or cell phone condition, driver experience, and driver record combined

  $F(4,12)=1.31$, $p=0.321$, $\eta 2=0.30$

- Accuracy showed no significant main effects for any variables, or any interaction effects

Conclusions

- Has ex dicit animal electram, quo ei homero recusabo consequat. Apeirian invenire maiestatis id nam, iriure aperiri detracto qui ne. Ad pro commune appetere repudiandae. Ut porro periculis consetetur vix, in cum vidit legere animal, autem assum in eam. Agam summo maluisset id sed. Vitae inciderint sea et.
- Duo principes omittantur accommodare te. Vix quem nisl dolorum ei. Vivendo facilisis argumentum eos ad. Ex qui oratio putent pertinacia, ei libris alienum partiendo ius. Ut exerci habemus oportere vis, et has meliore delectus. Ut nam debet iisque inimicus, mei no quidam epicuri platonem. Mei possit discere eu.

Implications

- Driver safety laws may need to be examined

- Many states have instituted laws against using hand-held cell phones while driving, but allow hands-free devices

- However, our study shows that there is no significant difference in reaction time between these two conditions

Put information about how to contact you down here (small). If you used any references, put the citation down here (also small)

Examining the Work Family Interface Among a Diverse Sample of Mothers

Nicole Silverman, Scripps College
Bettina J. Casad, Claremont Graduate University
Amy Marcus-Newhall and Judith LeMaster, Scripps College

Maternal Employment

- Most mothers today are employed outside of the home (White & Rogers, 2000), thus, women are likely to balance multiple roles as mothers and workers.
- However, mothers who choose to work outside of the home are evaluated negatively (Marcus-Newhall, LeMaster, Casad, & Shaked, 2005)
- In addition, employed mothers often experience role strain, which occurs when multiple roles create incompatible pressures such that participation in one role is made more difficult by participation in another role (Greenhaus, Parasuraman, Granrose, Rabinowitz, & Beutell, 1989).
- The quality of one's roles, rather than the quantity of one's roles, may be more important in determining whether a mother experiences role strain (Barnett & Hyde, 2001)
- Mothers who stay home experience their own challenges, including feeling isolated at home (Lennon, 1998) and being responsible for tasks that are often devalued (Wenk, 1984).
- The majority of research has examined perceptions of employed and stay-at-home mothers, rather than their actual experiences
- What little research has examined the experiences of mothers has focused almost exclusively on White, middle and upper-middle class women

Theoretical Rationale

Social role theory (Eagly & Steffen, 1984, Eagly, Wood, & Diekman, 2000)
- Women have traditionally been the primary caretakers of children and men have traditionally been the primary financial providers
- Because of these roles, women are expected to become mothers and their motherhood role is viewed as a primary aspect of identity, while their worker role is a secondary identity at best
- Women who violate their gender roles are evaluated negatively

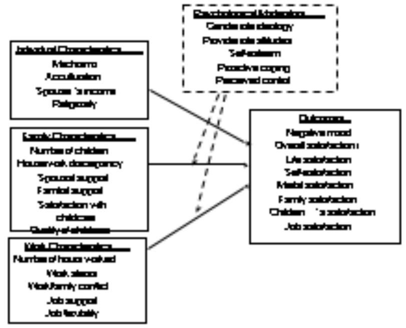
Spillover Theory (Barnett, 1994, Kanter, 1977)
- The work and family domains are not separate spheres as once conceptualized. Rather, each domain effects the other in both positive and negative ways.
- Satisfaction (or dissatisfaction) in one aspect of a mother's life, such as family life, should influence her satisfaction (or dissatisfaction) in another aspect of her life, such as the workplace.
- However, the work-family interface is interactive and affected by psychological moderating variables, such as coping skills, gender role ideologies, self-esteem, and perceived control.

Method

Participants
- 149 adult volunteers were recruited from shopping centers, daycares, published advertisements, telephone listings, and snowball sampling.
- All participants were at least 18 years old, were married, had at least one child under age 6 living in the home, were employed fulltime (at least 30 hours per week) or stayed at home without paid employment, and were African American, Latina, or White.
- Mean age 33.32 (*SD* = 6.58)
- 80 (53.7%) were stay-at-home mothers and 69 (46.3%) were employed mothers
- 24 (16.1%) were African American, 58 (38.9%) were Latina, and 67 (45%) were White

Procedure
- Participants completed a mail survey consisting of several questions measuring variables in the theoretical model on a 7-point Likert-type scale.

An Interactive Model of Work and Family Incorporating Spillover Theory



Results

- Hierarchical multiple regression analyses were computed for employed and stay-at-home mothers to determine the relationships among the variables in the theoretical model.
- Highly correlated variables were combined and all predictors were centered to reduce multicollinearity.

Work Characteristics and Job Satisfaction

Model 1 [a]	r		β	R^2 Change	Adjusted R^2
Job Support	[illegible]		[illegible]	[illegible]	[illegible]
Model 2	r		β	R^2 Change	
Work Stress	[illegible]		[illegible]	[illegible]	
Hours Worked	[illegible]		[illegible]		
Gen. Role X Hours Worked	High [illegible]	Low [illegible]	[illegible]		
Gen. Role X Role Conflict	High [illegible]	Low [illegible]	[illegible]		
Gen. Role X Work Stress	High [illegible]	Low [illegible]	[illegible]		
Gen. Role X Job Flex.	High [illegible]	Low [illegible]	[illegible]		
Provider Role X Role Conflict	High [illegible]	Low [illegible]	[illegible]		
Provider Role X Work Stress	High [illegible]	Low [illegible]	[illegible]		
Provider Role X Job Flex.	High [illegible]	Low [illegible]	[illegible]		
Coping X Role Conflict	High [illegible]	Low [illegible]	[illegible]		
Control X Role Conflict	High [illegible]	Low [illegible]	[illegible]		
Control X Job Support	High [illegible]	Low [illegible]	[illegible]		
Self Esteem X Work Stress	High [illegible]	Low [illegible]	[illegible]		
Self Esteem X Job Flex.	High [illegible]	Low [illegible]	[illegible]		
[a] n = 59. Overall R^2 = [illegible], F [illegible], p < .01. Overall adjusted R^2 = [illegible].					

Note. * p < .10. ** p < .05. *** p < .01. Only significant predictors are reported. Pearson r's for interactions represent the correlation between the IV and DV after a median split on the psychological moderator variable.

Work Characteristics and Negative Mood

Model 1 [a]	r		β	R^2 Change	Adjusted R^2
Role Conflict	[illegible]		[illegible]	[illegible]	[illegible]
Hours Worked	[illegible]		[illegible]		
Model 2	r		β	R^2 Change	
Provider Role X Job Support	High [illegible]	Low [illegible]	[illegible]	[illegible]	
Provider Role X Hours Worked	High [illegible]	Low [illegible]	[illegible]		
Coping X Role Conflict	High [illegible]	Low [illegible]	[illegible]		
Self Esteem X Hours Worked	High [illegible]	Low [illegible]	[illegible]		
Self Esteem X Job Flex.	High [illegible]	Low [illegible]	[illegible]		
[a] n = 59. Overall R^2 = [illegible], F [illegible], p < .05. Overall adjusted R^2 = [illegible].					

Note. * p < .10. ** p < .05. *** p < .01. Only significant predictors are reported. Pearson r's for interactions represent the correlation between the IV and DV after a median split on the psychological moderator variable.

Family Characteristics and Overall Satisfaction of Employed Mothers

Model 1 [a]	r		β	R^2 Change	Adjusted R^2
Spousal Support	[illegible]		[illegible]	[illegible]	[illegible]
Familial Support	[illegible]		[illegible]		
Model 2	r		β	R^2 Change	Adjusted R^2
Provider Role X Family Support	High [illegible]	Low [illegible]	[illegible]	[illegible]	
[a] n = 59. Overall R^2 = [illegible], F [illegible], p < .01. Overall adjusted R^2 = [illegible].					

Note. * p < .10. ** p < .05. *** p < .01. Only significant predictors are reported. Pearson r's for interactions represent the correlation between the IV and DV after a median split on the psychological moderator variable.

Family Characteristics and Negative Mood

Employed Mothers

Model 1 [a]	r	β	R^2 Change	Adjusted R^2
Satisfaction with Child Care	[illegible]	[illegible]	[illegible]	[illegible]
[a] n = 51. Overall R^2 = [illegible], F [illegible], p < .05. Overall adjusted R^2 = [illegible].				

Stay-at-Home Mothers

Model 1 [a]	r	β	R^2 Change	Adjusted R^2
Familial Support	[illegible]	[illegible]	[illegible]	[illegible]
[a] n = 48. Overall R^2 = [illegible], F [illegible], p < .001. Overall adjusted R^2 = [illegible].				

Note. * p < .10. ** p < .05. *** p < .01. Only significant predictors are reported. Pearson r's for interactions represent the correlation between the IV and DV after a median split on the psychological moderator variable.

Family Characteristics and Overall Satisfaction for Stay-at-Home Mothers

Model 2 [a]	r		β	R^2 Change	Adjusted R^2
Gen. Role X Spousal Support	High [illegible]	Low [illegible]	[illegible]	[illegible]	[illegible]
Gen. Role X Familial Support	High [illegible]	Low [illegible]	[illegible]		
Gen. Role X Satisfaction with Child Care	High [illegible]	Low [illegible]	[illegible]		
Provider Role X Satisfaction with Child Care	High [illegible]	Low [illegible]	[illegible]		
Coping X Housework Discrepancy	High [illegible]	Low [illegible]	[illegible]		
Self Esteem X Satisfaction with Child Care	High [illegible]	Low [illegible]	[illegible]		
[a] n = 48. Overall R^2 = [illegible], F [illegible], p < .01. Overall adjusted R^2 = [illegible].					

Note. * p < .10. ** p < .05. *** p < .01. Only significant predictors are reported. Pearson r's for interactions represent the correlation between the IV and DV after a median split on the psychological moderator variable.

Discussion

Support for Spillover Theory
- Results indicate that work characteristics affect overall satisfaction, which includes family and marital satisfaction.
- Results also indicate that family characteristics can affect performance in the workplace through their association with negative mood.

Support for an Interactive Model
- Results clearly indicate psychological moderators are important variables to include when examining the work-family interface. The effects of role strain, work stress, job flexibility, family support, spousal support, job support, hours worked, satisfaction with child care, and housework discrepancy are all moderated by self esteem, gender role ideologies, perceived control, and/or proactive coping skills.
- These results have implications for how families manage the work-family interface and how employers support their employees and their families.

Cellular telephone conversation disrupts attention and decision processes in older and younger adults

Joellen Hartley, Nicole Reece, Amy Jennings, and Janna Stansell

Department of Psychology, California State University, Long Beach, CA 90840

INTRODUCTION

Driving an automobile requires close attention to changes in the visual environment as well as fast and accurate decisions about the appropriate responses when changes are detected. Cellular telephone conversations clearly detract from driving tasks. This research addressed the following questions.

1. Are both attention and decision processes affected by a cellular telephone conversation? If so, does the intensity of the conversation have an effect on either or both of these processes?
2. Are older adults more vulnerable to the negative effects of a cellular telephone conversation? If so, in what processes affected more than the other?

The success of attention capture was measured by latency of simple responses to changes in the visual display on a computer monitor. No choice was required for these responses (a key press for one, a key lift for the other). Decision processes were assessed with both the latency and accuracy of a key press response to changes in the visual display that required one of two possible responses, depending on the nature of the change. We expected to find age-related differences in both processes, and that the differences between age groups would increase as conversation intensity increased.

METHOD

SCREENING CRITERIA:

MMSE > 26	Normal color vision
Current driver	Normal (or corrected to normal) hearing
	No psychoactive drugs

INDEPENDENT VARIABLES:

- **AGE**

  Young; $M = 22.1$, $n = 18$
  Old; $M = 71.4$, $n = 14$

- **CONVERSATION INTENSITY**

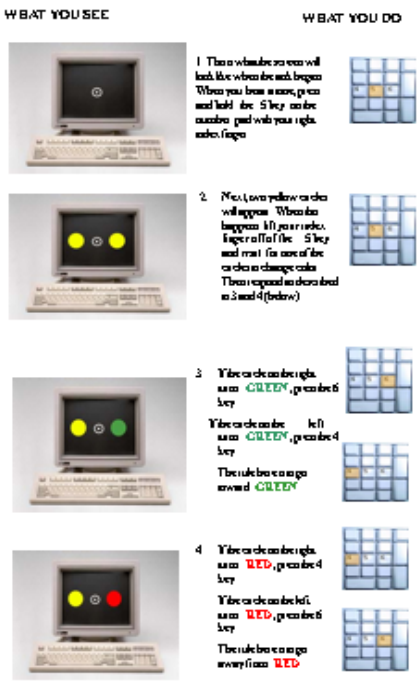
Control	*No conversation*
Low Intensity (Casual chat)	*How long have you lived in California?* *How do you like it?* *Have you lived in any other places?* *Where?*
High Intensity (Retrieve & manipulate information)	*Name the states that begin with the letter "M"* *Now name them from east to west.* *Spell "Massachusetts" backwards.*

PROCEDURE:

Practice
- 1 familiarization sets of 8 trials
- 4 practice blocks of 36 trials

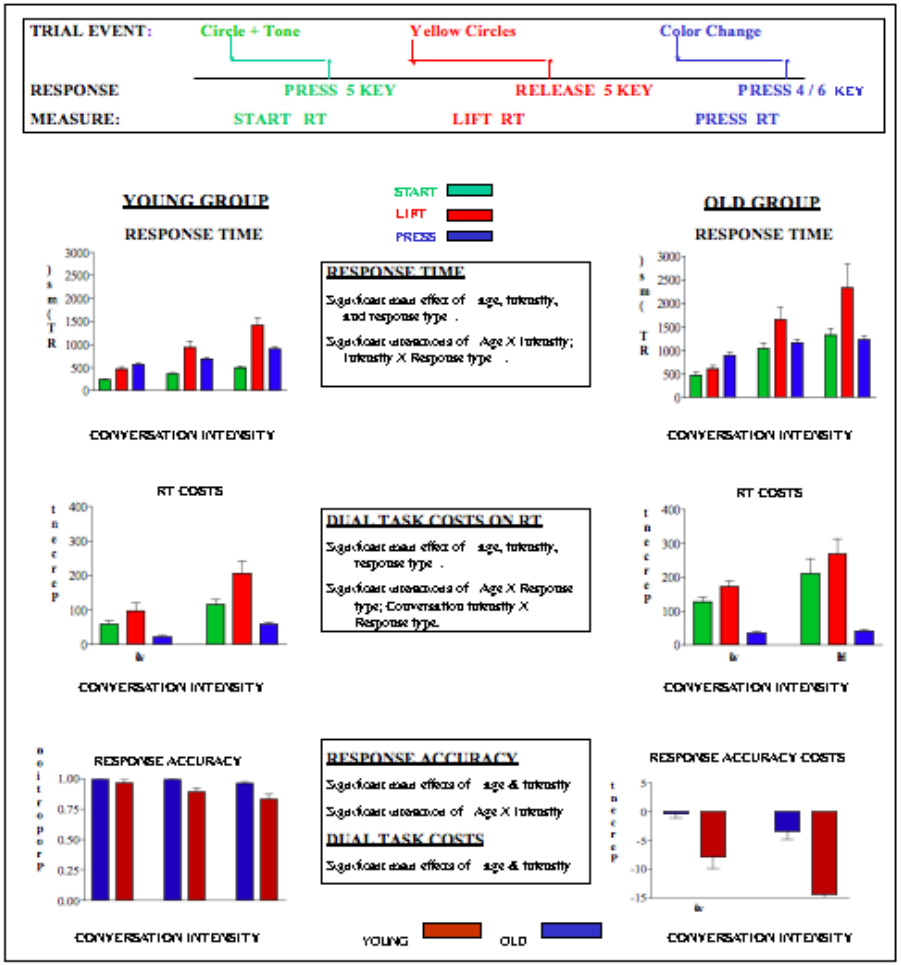
Experiment
- 48 trials in each of the low and high intensity conditions in counterbalanced order
- 36 trials in Control condition final block of trials
- Motorola phone with hands-free device worn for all 3 experimental conditions (no manipulation of phone buttons)
- All manual responses used right index finger

EXPERIMENTAL TASK:



Between each trial you will hear a tone. As soon as you hear it, quickly put your finger back on the 5 key and wait for the next color change to occur. Remember, the idea is to go toward GREEN and away from RED. Respond as quickly and accurately as possible.

RESULTS



CONCLUSIONS

➢Both attention and decision processes were affected by the intensity of a cellular phone conversation and this was true more for older adults than for younger adults. These data suggest that:

➢Older adults will be more impaired than younger adults when reacting to changes in the visual environment while driving. The more intense the cell phone conversation, the slower the reaction for older adults.

➢Older adults will make decision errors about the appropriate response to the visual environment more often than younger adults, and the errors will increase as conversation intensity increases.

➢***CAUTION!*** These conclusions are based on a cross-sectional design. Cohort differences in experience with cell phones while "driving" may account for some of the differences that we attribute to age in these analyses.

Independence of Syntactic Processing and Verbal Working Memory

Deann Del Rio and Alan Hartley

UC Berkeley and Scripps College

INTRODUCTION

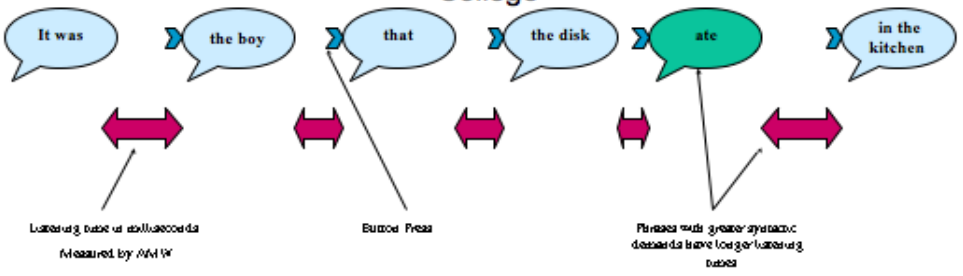
Some propose that processing a sentence requires the resources of conventional verbal working memory, while others claim that syntactic processing uses its own resources independent of verbal working memory (VWM). A concurrent load design, with subjects performing a VWM task and a syntactic processing task simultaneously, had yielded data suggesting the independence of syntactic processing and VWM. A replication of this concurrent load design was undertaken, and older adults were added to the participant pool. Older adults are known to have reduced VWM capacities, and this phenomenon was exploited in order to further explore the relationship between VWM and syntactic processing.

HYPOTHESES

The concurrent load design will replicate the results of Waters et al. (2002) for the young subjects. Furthermore, the aging factor should not affect syntactic processing abilities as long as VWM and syntactic processing are independent and syntactic processing resources do not deteriorate with age.

METHODS

The concurrent load design consisted of a VWM task and a syntactic processing task. Each task was manipulated to create several levels of difficulty. The VWM task required subjects to remember a string of digits, and each subject received three levels of digit load. The syntactic processing task required subjects to listen to and process a sentence presented via the Auditory Moving Windows (AMW) format (Ferreira et al., 1996). Each participant received two levels of the syntactic processing task: simple and complex sentences.



Schematic of AMW Measure

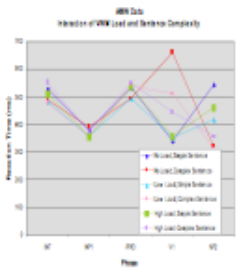
The Task

- A string of digits appears on the computer screen, and the participant commits to memory
- The screen clears and the computer begins presenting the sentence, one phrase at a time, over the speakers
- The sentence ends and the participant presses a button indicating whether the sentence was plausible or implausible
- The participant recalls the digits from the beginning of the trial

The Measure

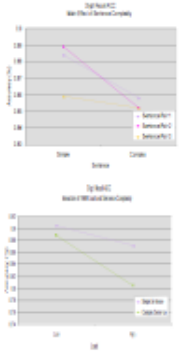
The Auditory Moving Windows format is a method of presenting the sentences for syntactic processing. Each sentence is broken up into its phrases and each phrase is presented one at a time, in order for the next phrase to be presented, the subject must press a button revealing the phrase. In this manner, the participant's processing time for each phrase is recorded.

RESULTS



Analysis of the AMW Data

- Only one pair of simple and complex sentences demonstrates the predicted effects of syntactic complexity
- The critical interaction of syntactic complexity and VWM load was present in the above mentioned sentence pair, but in the opposite form of the interaction that would indicate dependence of VWM and syntactic processing (See chart above)



Analysis of Digit Recall Accuracy

- Significant main effect of sentence complexity, in which simpler sentence trials yielded higher digit recall accuracy, was found for two simple-complex sentence pairs (See top chart)
- Significant interaction of sentence complexity and digit load, in which the negative effect of increased digit load on digit recall was exaggerated in complex sentences, was found for one simple-complex sentence pair (See bottom chart)

DISCUSSION

- The interaction of VWM load and syntactic processing in the AMW data demonstrates that participants adopted a strategy in which they moved through the syntactic task most quickly when syntactic and VWM loads were highest
- Digit recall data is not entirely reliable as it is an offline measure and is part of a dual task without a single protected task
- Main effect of sentence complexity on digit recall suggests that VWM and syntactic processing rely upon the same resources
- Interaction of sentence complexity and digit load strengthens the argument that VWM and syntactic processing are utilizing the same resource via additive factors logic

CONCLUSIONS

- AMW data suggests participants develop a strategy to protect their performance on tasks with high VWM and syntactic loads, and it provides no evidence of dependence of syntactic processing on VWM resources
- Digit recall data conflicts with the results of the AMW measure, suggesting that VWM and syntactic processing may rely upon a common resource

Affective forecasting across the lifespan: Does age bring predictive wisdom?

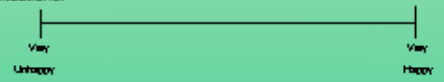
Jouk, A., Wood, S., Moneta, L., & Vanderloop, A.
Scripps College, 2005

Introduction

Affective forecasting occurs when people predict how a future event will make them feel. These predictions, however, are often innacurate. People tend to overestimate the intensity of their predicted emotions. This study will examine the difference in intensity bias in across the lifespan. According to current personality theories in aging, such as Socioemotional Selectivity Theory, older adults are motivated to meet emotional goals and to optimize affect (Carstensen, 1999). Thus, older adults might be at increased risk for forecasting errors as they emphasize affect. Alternatively, perhaps after a lifetime of making forecasting errors, older adults have learned from their experience and are less extreme in their predictions. Based upon the methodology described by Wilson (Psych Science) we asked younger, older, and middle-aged adults at Union Station in Los Angeles how they would feel if they missed their train (negative event). We also asked younger, older, and middle-aged adults just prior to the Berkeley vs. UCLA game at the Rose Bowl in Pasadena how they would feel if their team won that day (positive event). We hypothesized that older adults would be less extreme in their predictions for both the events in comparison to younger adults.

Materials and Methods

- Survey administered to younger, middle-aged, and older adults using convenience sampling.
- Participants rated mood on a 128-mm line ranging from very unhappy to very happy for one question predicting mood in two different situations.



Part 1: Los Angeles Union Station

19 younger adults (18-34 yrs)
19 middle-aged (35-59 yrs)
12 older adults (60+ yrs)

Question Asked:
- How would you feel if you missed your train this morning?

Part 2: UCLA vs. CAL Berkeley Football Game

25 younger adults
14 middle-aged
20 older adults

Question asked:
- How would you feel if the team you are rooting for won?

Results

Estimated Means for Emotional Ratings on a Scale of 1-128 mm

Figure 1. Emotional ratings for "missing train" and "team won" events for older, younger, and middle aged adults.

- Both events evoked strong emotional reactions in younger, older and middle-aged adults with the "missed train" event being significantly more negative than the "team won" event.
- The groups did not differ in their mean estimates of predicted sadness.

Mean ratings (0mm = very unhappy, 128 mm = very happy)

Missing Train Event (sadness)
Older = 46.83 mm, SD = 30.23
Middle-aged = 46.26 mm, SD = 31.44
Younger = 45.79 mm, SD = 21.57

Team Won Event (happiness)
Older = 116.8 mm, SD = 17.47
Middle-aged = 120.78 mm, SD = 16.72
Younger = 130.36 mm, SD = 12.40

$F(2, 107) = 0.12$, non-significant.

Conclusions

- Previous research has shown cognitive differences emerge as people age.
- Contrary to previous research and the hypothesis, this study indicates that older and younger adults predict their emotions for events with the same intensities.
- Perhaps older and younger adults predict events in the same manner, but then their emotions change once the event has occurred.
- Further research will question participants after the event they forecasted occurred in order to assess the accuracy of their predictions.
- Perhaps older adults will return to their emotional baseline faster than younger adults once they have experienced the reality of the event.
- Physiological responses will also be obtained using a galvanic skin response (GSR) machine in order to determine if a physiological factor accompanies affective forecasting.

Implications for Decision Making

Financial:

- Older and younger adults may rely on emotions when deciding to invest in the stock market. These emotions can have an impact on risky and less risky behavior.

Medical:

- Elderly adults face decisions regarding end of life care, nursing homes, and medication compliance. These issues can be looked upon irrationally when emotions factor into the decision making process.

Acknowledgements

The authors would like to thank the Mellon Foundation for providing a grant to fund this research. Correspondence for this posters should be addressed to Dr. Stacey Wood, Department of Psychology, Scripps College, 1000 Columbia Ave. Claremont, CA, 91711; swood@scripps.edu.

The Effects of Cell Phone Conversation on Reaction Time and Accuracy of Stimulus Response

Davis, C., Fontanesi, C., & Krimmer, P.
Scripps College, 2007

Introduction

There are contradictory findings regarding the differences between the effects of hand-held devices and hands-free devices on driving. Garcia-Larrea, Perchet, Perrin, and Amenedo (2001), Strayer and Johnston (2000), and Consiglio, Driscoll, Witte, and Berg (2003) have found that there is no difference between the two conditions in regards to how much they impair a driver's reaction time. However, Mathews, Legg, and Charlton (2003), have shown a significant difference, such that being on a hands-free device does not impair reaction times as much as a hand-held device. In our study, we hypothesized that there would be a significant difference in participant reaction time and accuracy while using a hands-free cell phone and a hand-held cell phone, such that hand-held cell phone conversation would yield slower reaction times and lower accuracy than hands-free. We also predicted that both conditions would result in slower reaction times and lower accuracy than a control condition of no cell phone. While all participants' reaction times would likely be slowed by using a cell phone, we expected that the participants with more driving experience or a better driving record would be less impaired.

Methods

- Questionnaire administered to 15 female college students whose ages ranged from 17 to 22, with a mean of 19.2, to determine their driving record and level of experience
- Participant began a computer task

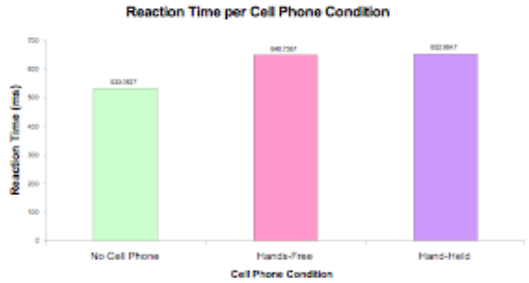
  There were 3 different traffic sign images that appeared at random intervals in a random order.

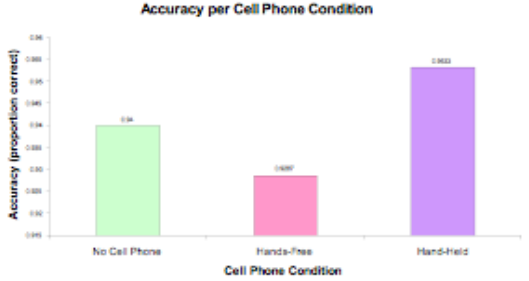
  Participant were instructed to respond to the stimuli as fast as possible using the assigned keyboard keys.

  Each participant completed 3 trials of 18 stimuli each, one with no cell phone conversation, one on a hands-free cell phone, and on a hand-held cell phone. The order of the conditions was randomly counterbalanced prior to the onset of the trials.

  Cell phone conversations consisted of participants listening to a series of sentences. They were asked to respond by stating if each sentence was logical.

Results





- For reaction time, there was a significant main effect of cell phone condition,

  $F(2,12)=16.97$, $p<0.001$, $\eta 2=0.74$

- But there was not a significant main effect for driver experience,

  $F(2,6)=0.66$, $p=0.549$, $\eta 2=0.18$

- or driver record.

  $F(1,6)=0.15$, $p=0.71$, $\eta 2=0.02$

- There was also no significant interaction of cell phone condition and driver experience

  $F(4,12)=2.39$, $p=0.109$, $\eta 2=0.44$

- or cell phone condition and driver record

  $F(2,12)=0.06$, $p=0.941$, $\eta 2=0.01$

- or cell phone condition, driver experience, and driver record combined

  $F(4,12)=1.31$, $p=0.321$, $\eta 2=0.30$

- Accuracy showed no significant main effects for any variables, or any interaction effects

Conclusions

- These findings are consistent with many previous studies on the effects of cell phones on reaction time
- Contrary to many state laws, implying that hands-free phones have less of an effect than hand-held phones, our study showed there was no difference between the two conditions
- Further research should be conducted to determine the reasons cell phone conversation impacts reaction time, and how this can be applied to the differences between hands-free and hand-held cell phones

Implications

- Driver safety laws may need to be examined
- Many states have instituted laws against using hand-held cell phones while driving, but allow hands-free devices
- However, our study shows that there is no significant difference in reaction time between these two conditions

The Role of Stroop and Word Superiority Effects in Bypassing the Dual-Task Bottleneck

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Scripps College

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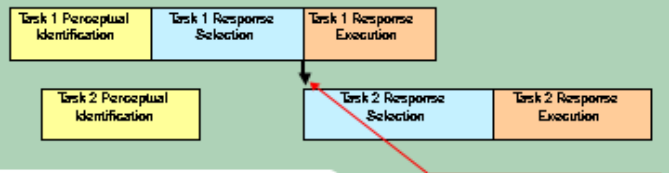
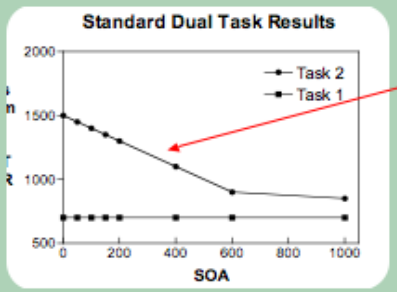
Introduction

Response Selection Bottleneck





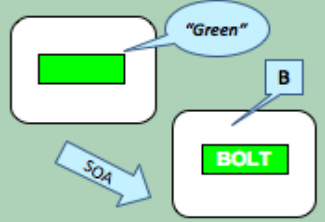
Objective

- Under what circumstances will the Response Selection Bottleneck be bypassed?
  - Exp. 1: Will Stroop interference and facilitation bypass the bottleneck?
  - Exp. 2: Will Word Superiority facilitation bypass the bottleneck?

Method

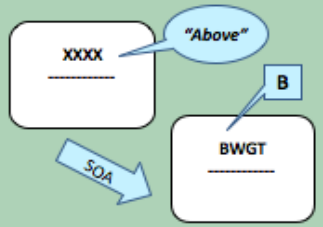
Exp.1: Stroop

The Procedure
Task 1: Name the color vocally
Task 2: Identify the first letter manually



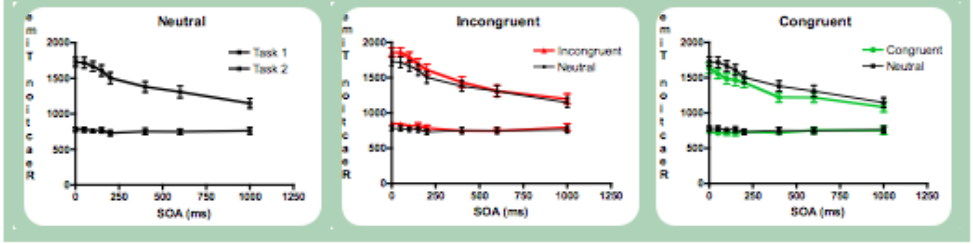
Exp. 2: Word Superiority

The Procedure
Task 1: Name the location vocally
Task 2: Identify the first letter manually

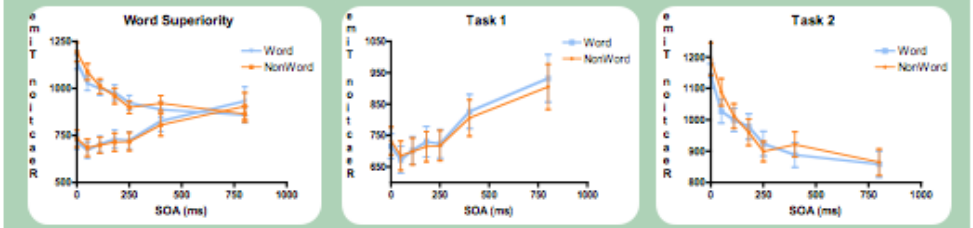


Results

Exp. 1: Stroop



Exp. 2: Word Superiority



Conclusion

Exp. 1: Stroop

- Stroop effect bypassed the bottleneck
- Task 2:
  - Stroop ***interference*** increased Task 2 RTs at short SOAs
  - Stroop ***facilitation*** reduced Task 2 RTs at short SOAs
- Task 1:
  - Task 1 RTs ***slower*** when incongruent
  - Task 1 RTs ***faster*** when congruent

Exp. 2: Word Superiority

- Word Superiority effect bypassed the bottleneck
- Task 2
  - Affected by word type
  - Non-word: RTs ***slower*** at short SOAs
  - Word: RTs ***faster*** at short SOAs
- Task 1
  - Not affected by word type
  - RTs did not differ significantly for words and non-words.

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Presenting a Poster

- Many interactions: Just answering questions
  - Most from people who are at best vaguely familiar with your area
  - But, the person at the conference who knows most about your area will surely stop by with a question
- Most people won't ask
  - If they seem interested, be ready to step up and ask "Can I guide you through the poster?"
  - Have a 2-3 minute spiel ready