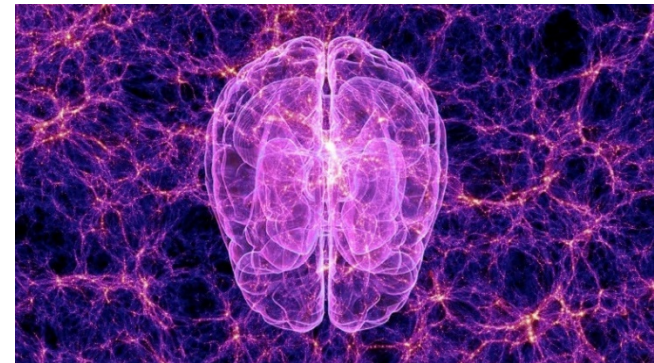




Measuring Precognitive Effects Using a Fast Implicit and Fast Explicit Task

Dr David Vernon



Background



- Precognition

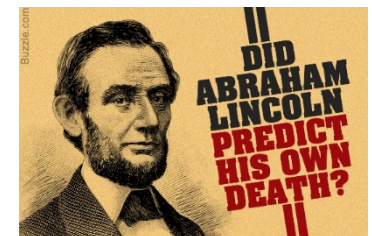
- Obtaining information about *future* event via a non-usual route

(e.g., Bierman & Bijl, 2014; Franklin et al., 2014)

- Some aspect of your behaviour *now* is influenced by something you do, or something you see in the *future*

- The ability to perceive and/or behave in a way that is influenced by a *future* event that would not be anticipated through any known inferential process

(see, Mossbridge et al., 2014)



Precognition in the Lab

- Can we find any evidence in the lab to support this idea?
 - Some supportive findings
(e.g., Bem, 2011; Subbotsky, 2013; Vernon, 2015, 2018)
 - Some failed replications
(e.g., Galak et al., 2012; Ritchie et al., 2012; Vernon, 2017)



"At least we are consistently inconsistent."
#76057467

Why?

- Level of conscious effort or engagement

- Implicit vs explicit

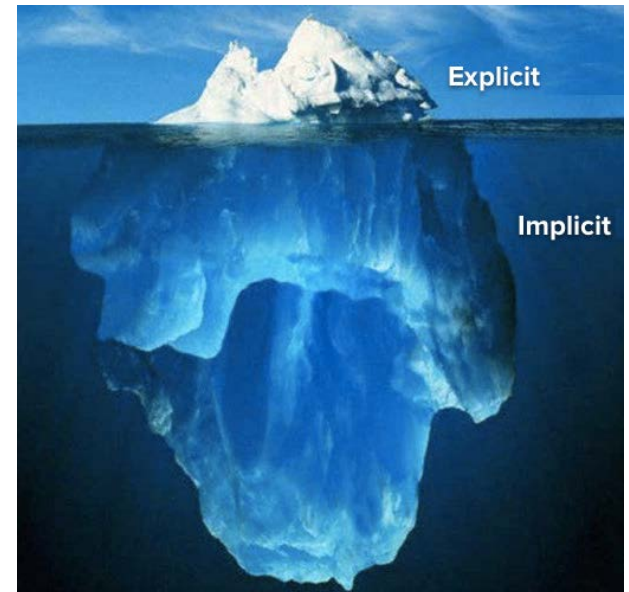
(Bargh & Ferguson, 2000)

- Fast vs slow

(Bem et al., 2015)

- Confounding the concepts

(see, Bem, 2011)



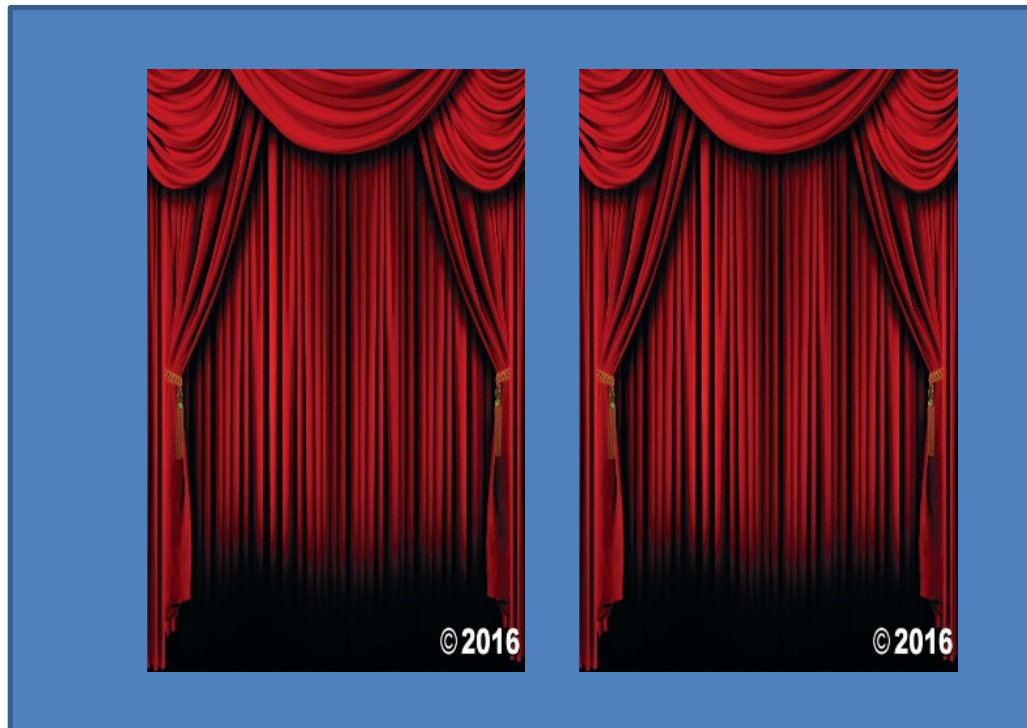
Questions

- Attempt to elicit precognitive effect
 - Time pressured implicit task
 - Time pressured explicit task
 - Allows for implicit vs explicit comparison



Implicit Task

- Implicit preference task
 - On each trial of the experiment, pictures of two curtains will appear on the screen side by side. One of them has a picture behind it; the other has a blank wall behind it. Your task is to click on the curtain that you feel has the picture behind it. The curtain will then open, permitting you to see if you selected the correct curtain.



Explicit Recognition Task

Study Phase

List A
List B
List C
List D
.....

Test Phase

List A } Old
List B }
List E } New
List F }
.....

Time



Explicit Precognitive Recognition Task

Study Phase

List A
List B
List C
List D
.....

Test Phase

List A
List B
..... } Old

List E
List F
..... } New

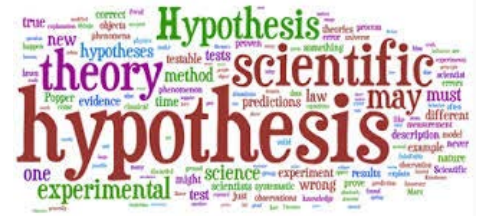
Post Test Practice Phase

List A
List A
List A
.....

Time



Predictions



- Implicit preference task
 - Identify hidden erotic image >50%
 - Faster to respond to hidden erotic image compared to neutral image
- Explicit recognition task
 - Recognition score more accurate for words repeated *after* test
- Comparing implicit vs explicit
 - Compare precognitive effect sizes for implicit vs explicit task


Method

- Pre-registered study with KPU
 - The study was pre-registered at the Koestler Parapsychology Unit (ref#1036)
- Ethics approval
 - University Faculty Ethics Committee (Ref: 16/SAS/358C)
- Participants
 - Mean effect size from Bem (2011) of $d = 0.265$
 - G*Power using standard alpha criterion, and power of 0.90 need an N of 159
 - All participants opportunity sampled via an advertised link
- Design
 - Repeated measures with IM – EM order counterbalanced
- Materials
 - Built and delivered using SuperLab
 - Images from IAPS database (Lang et al., 1997)
 - Word lists matched for frequency (Van Heuven et al., 2014)
 - NASA images and new age type music
 - Revised Paranormal Belief Scale (RPBS: Tobacyk, 2004)

Method

- Procedure
 - 5 phases to the experiment

Order of implicit and explicit tasks counterbalanced



Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
Study information Informed consent Demographics	Relaxation induction for 3 mins	Implicit preference task	Relaxation induction for 3 mins	Explicit recognition task

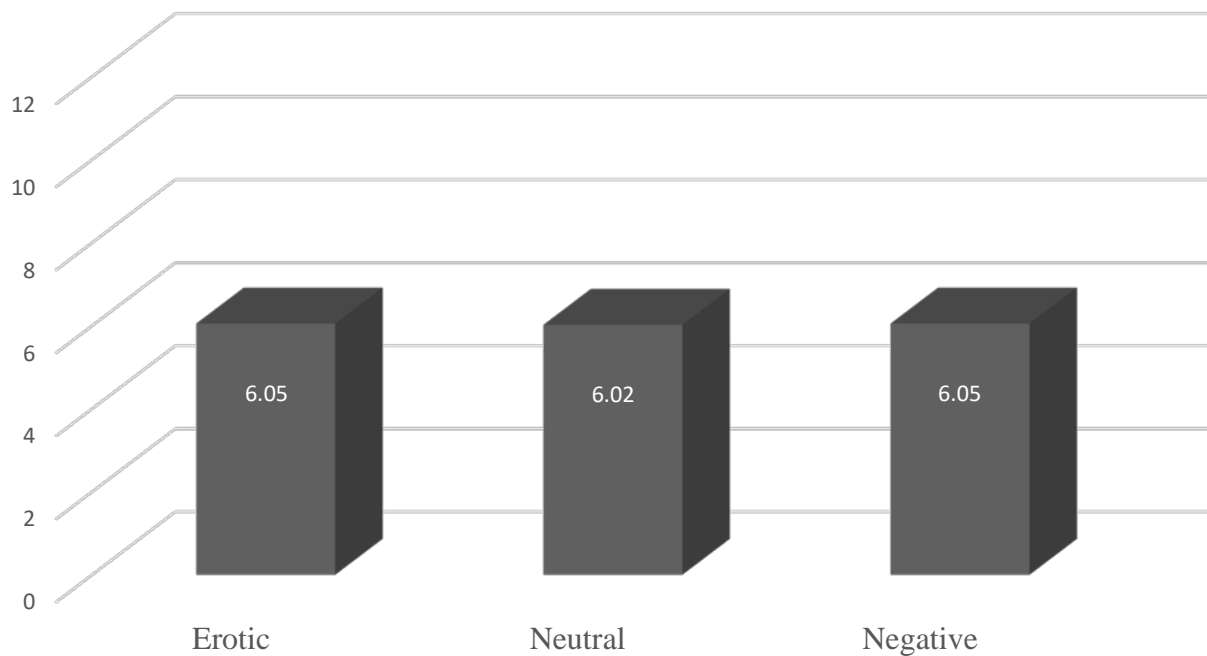
Table 1. Showing each of the five phases of the experiment.

Results

- Implicit accuracy

50% Chance = 6

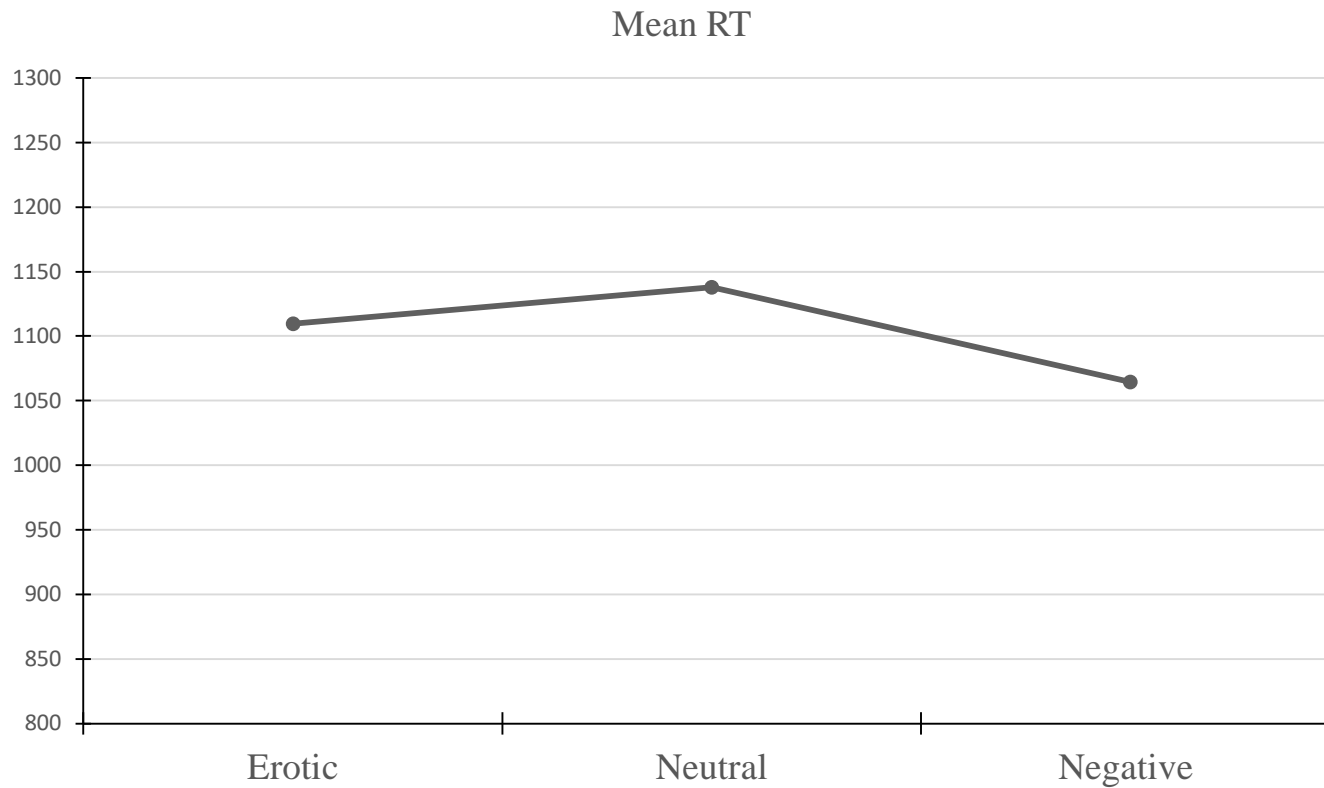
Mean Accuracy



No difference in preference for erotic images $t(165)=0.363$, $p=0.717$, 95% CI (-0.21, 0.31), $d=0.02$

Results

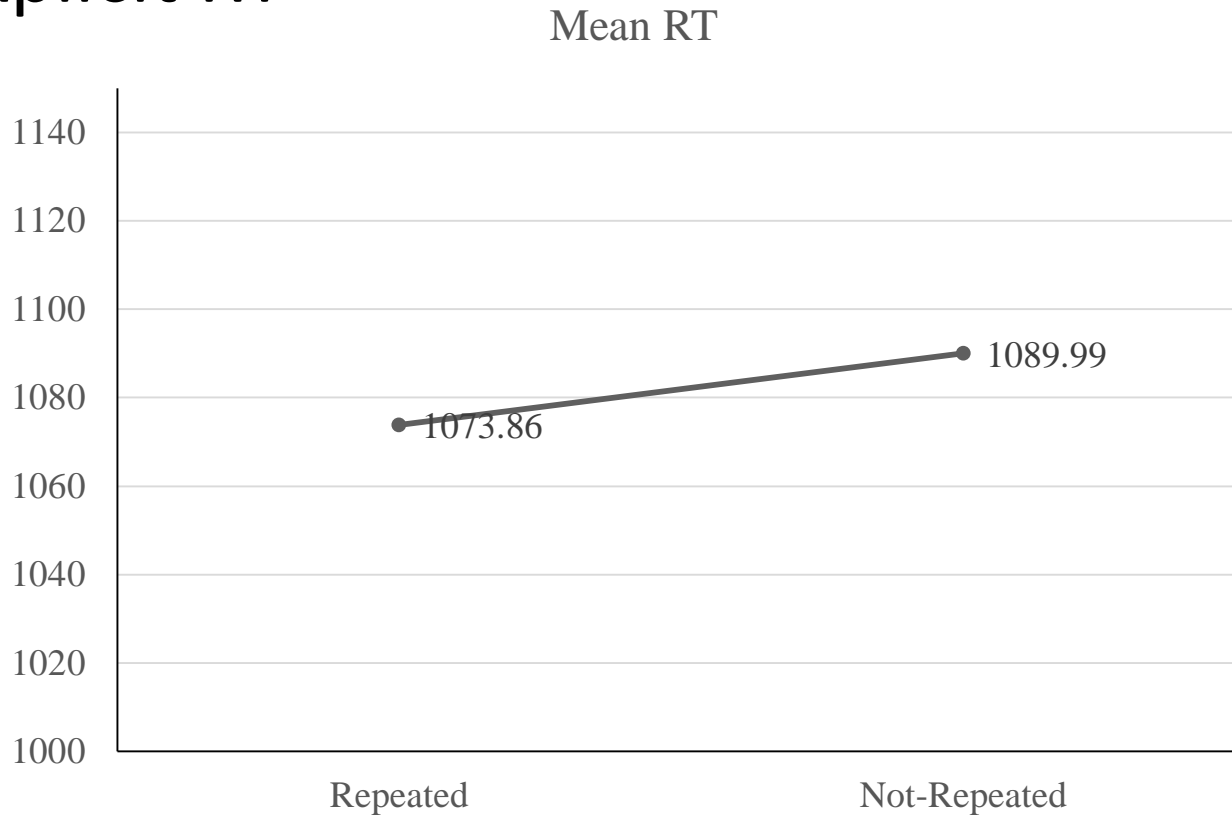
- Implicit RT



No difference in RT between erotic images and neutral= -0.517 , $p=0.61$, $r=-0.02$

Results

- Explicit RT



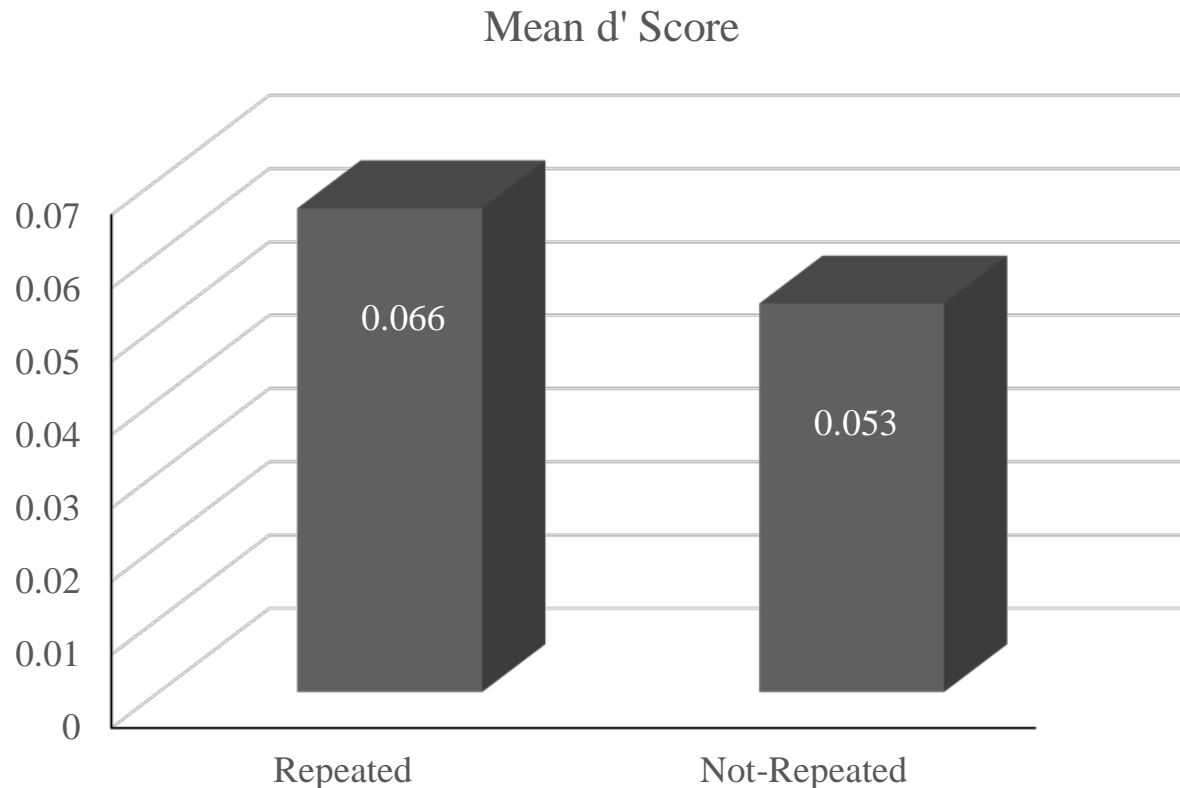
No difference in RT between repeated and not-repeated words, $t(158)=1.212$, $p=0.227$, 95% CI(-42.42, 10.15), $d=0.06$

Results

- Sensitivity (d prime)

- Subtracting z score of false alarm from z score of hit

(Macmillan & Creelman, 2005)



No difference in median sensitivity between repeated and not-repeated words, $Z=-0.4561$, $p=0.65$, $r=0.02$



Discussion



- Summary
 - No evidence of precognition when completing an implicit preference task using erotic, neutral and negative images
 - No evidence of precognition in a word recognition task
- Evidence of nothing or no evidence?
 - Nothing there
 - Statistical anomalies, fraud (see, Wagenmakers et al., 2011; Stokes, 2015)
 - No evidence
 - Precognition is real I've simply failed to find/elicit it (e.g., Bem, 2011; Maier et al., 2014; Subbotsky, 2013, Vernon, 2018)



Discussion



- Why no effects?
 - Methodological reasons
 - Possible but there is a need for greater understanding
 - Theoretical reasons
 - Psi mediated instrumental response (PMIR)
 - Psi works at an unconscious level to serve the needs motives of the individual
(Stanford, 1974; 2006)
 - First sight model and theory (FSMT)
 - Psi is fundamental in all experiences for all organisms
(Carpenter, 2004; 2005)
 - Decision augmentation theory (DAT)
 - The *timing* of decisions is favoured (i.e., augmented) towards beneficial outcomes via anomalous cognition (or psi)
(May, Utts & Spottiswoode, 1995; May, Spottiswoode, Utts & James, 1995)

Discussion

- There is a desperate need in the field for clear theoretical developments that lead to testable predictions



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Thank You

Questions?

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