

# Retrocausation and Precognition: Taking Time Seriously

13<sup>th</sup> Symposium of BIAL Foundation

Behind and Beyond the Brain – The Mystery of Time

Aquém e Além do Cérebro

Casa do Médico – Porto | 6-9 April 2022

Daniel P. Sheehan, PhD  
Patricia S. Cyrus  
University of San Diego

# Retrocausation and Precognition: Taking Time Seriously

## Time and Retrocausation



Professor of Physics  
Department of Physics  
University of San Diego

[dsheehan@sandiego.edu](mailto:dsheehan@sandiego.edu)  
Tel: +1-619-260-4095

Daniel P. Sheehan, PhD

## Precognition Experiments and Time



Research Associate  
Department of Physics  
University of San Diego

[pcyrus@sandiego.edu](mailto:pcyrus@sandiego.edu)  
Tel: +1-619-260-4095

Patricia S. Cyrus

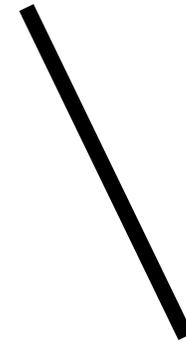
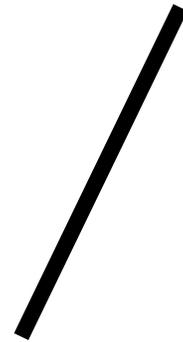
# Overview



- Time-Reversal Symmetry
- Arrows of Time
- Quantum Retrocausal Models
- Precognition
- Quantum Oracle
- Conclusion



Dualism  
(Mind/Matter)



Idealism  
(Mind)

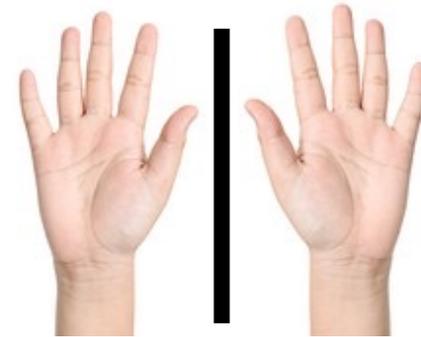
Physicalism  
(Materialism)  
(Matter)

# CPT Symmetry

**C**harge Conjugation

**+** **-**

**P**arity Transformation



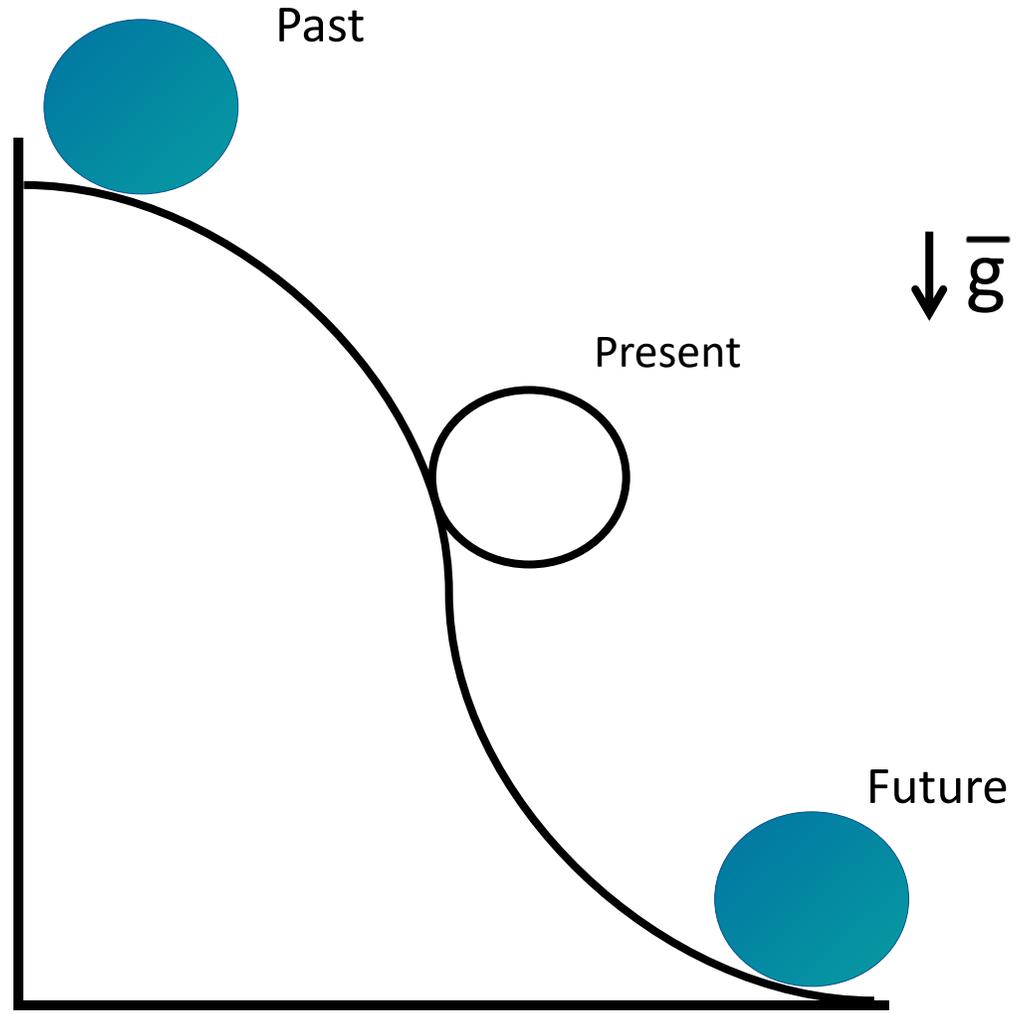
**T**ime Reversal



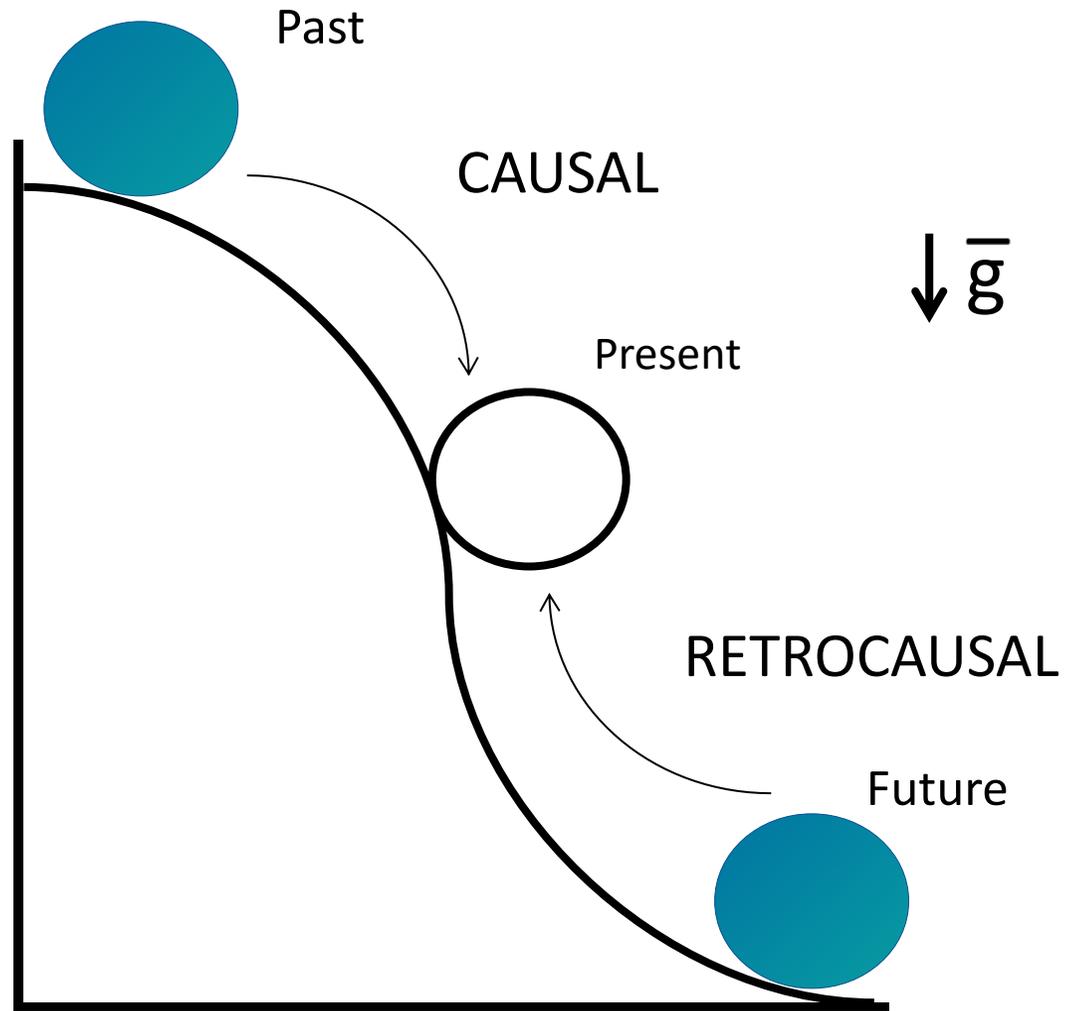
# Fundamental Physical Equations: Time Reversal Symmetry

<b>Newton</b>	<b>Maxwell</b>
$\vec{F} = \frac{d\vec{p}}{dt}$	$\square_{\mu} F^{\mu\nu} = 4\pi J^{\nu}$
<b>Einstein</b>	<b>Schrödinger</b>
$8\pi G T^{\mu\nu} = G^{\mu\nu}$	$\hat{H}\Psi = i\hbar \frac{\partial\Psi}{\partial t}$
<b>Time Reversal Symmetry</b>	
$t \rightarrow -t$	
$t: F = ma = m \frac{d^2x}{dt^2}$	
$-t: F = ma = m \frac{d^2x}{d(-t)^2} = m \frac{d^2x}{dt^2}$	

# Past-Present-Future-Present-Past



# Past-Present-Future-Present-Past



# Classical Reality (fundamental equations time symmetric)

- Time asymmetric
- Irreversible



Second Law of Thermodynamics  
( $\Delta S \geq 0$ )

# Arrows of Time

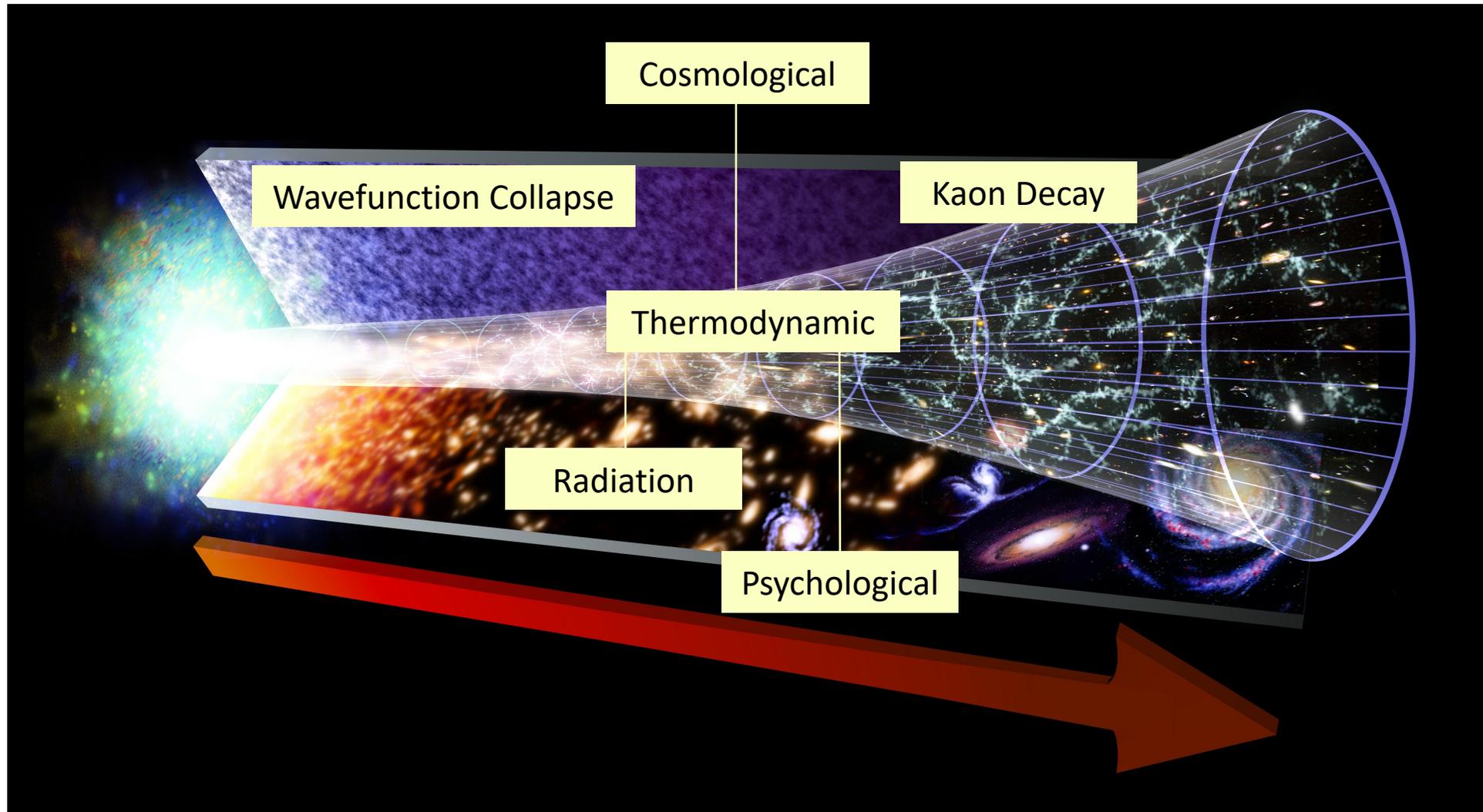


Image credit: NASA/GSFC

Classical equations – time symmetric  
(reversible)

Classical Reality – time asymmetric  
(irreversible)

SLTD  
( $\Delta S \geq 0$ )

# Quantum Formalism – Time Symmetric

## Quantum Retrocausal Models

- Costa de Beauregard (1953)
- Two-State Vector Formalism (1964) 
- Transactional Interpretation (1986) 
- Aharonov-Vaidman (1990)
- Sutherland (2006)
- Wharton (2007)
- Elitzur (2008)

# Quantum Paradoxes

- EPR 
- Schrödinger's Cat
- Wheeler's Delayed-Choice 
- Wigner's Friend
- Einstein's Bubble
- Interaction-Free Measurements

Resolution: Time Symmetry



# Transactional Model

(Cramer, 1986)

(Wheeler-Feynman, 1945)

Retarded Wave (Past → Future)

$\Psi$  (Causal)

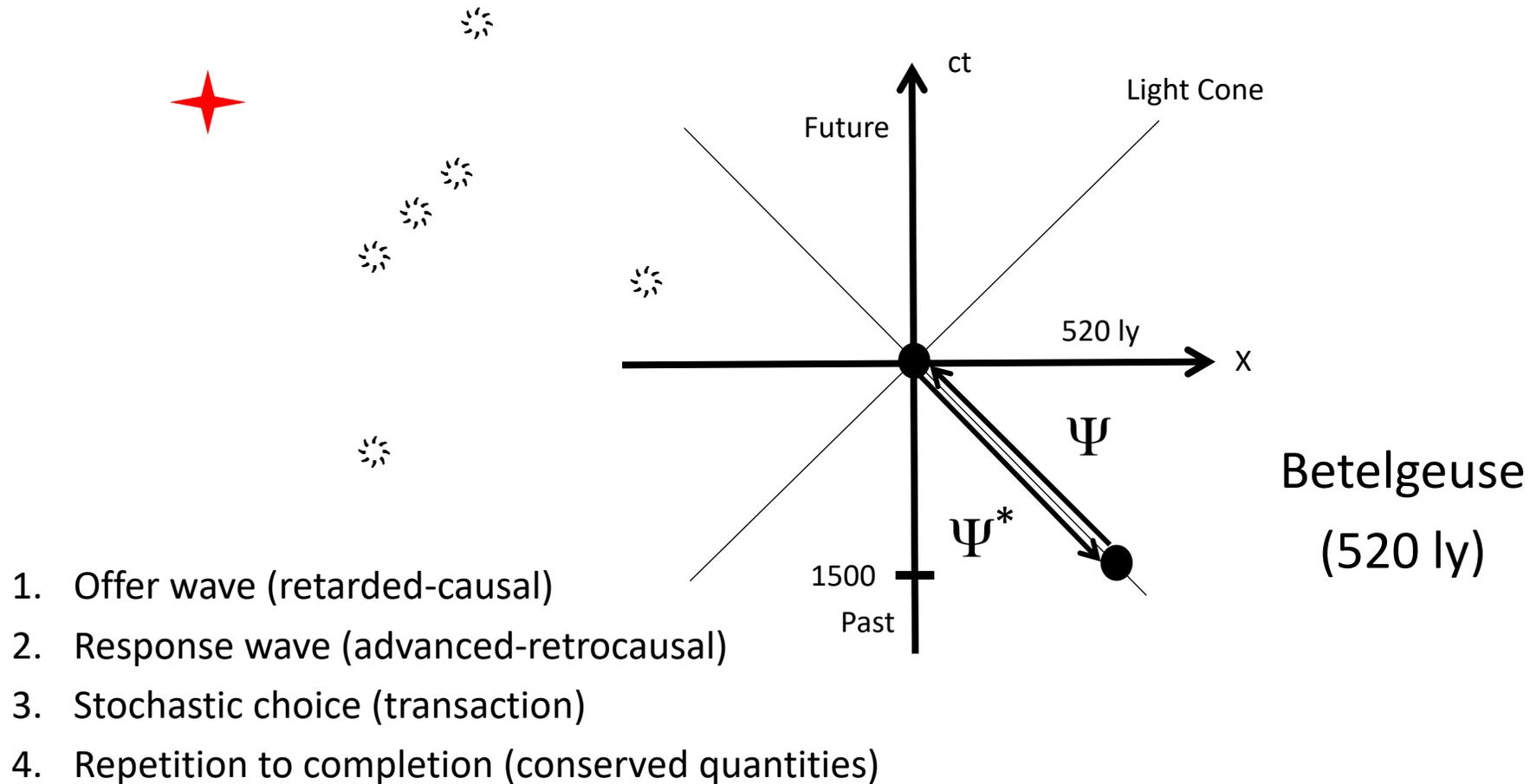
Advanced Wave (Future → Past)

$\Psi^*$  (Retrocausal)

Quantum Handshake  
(Present)

# Starry Night – Transactional Model

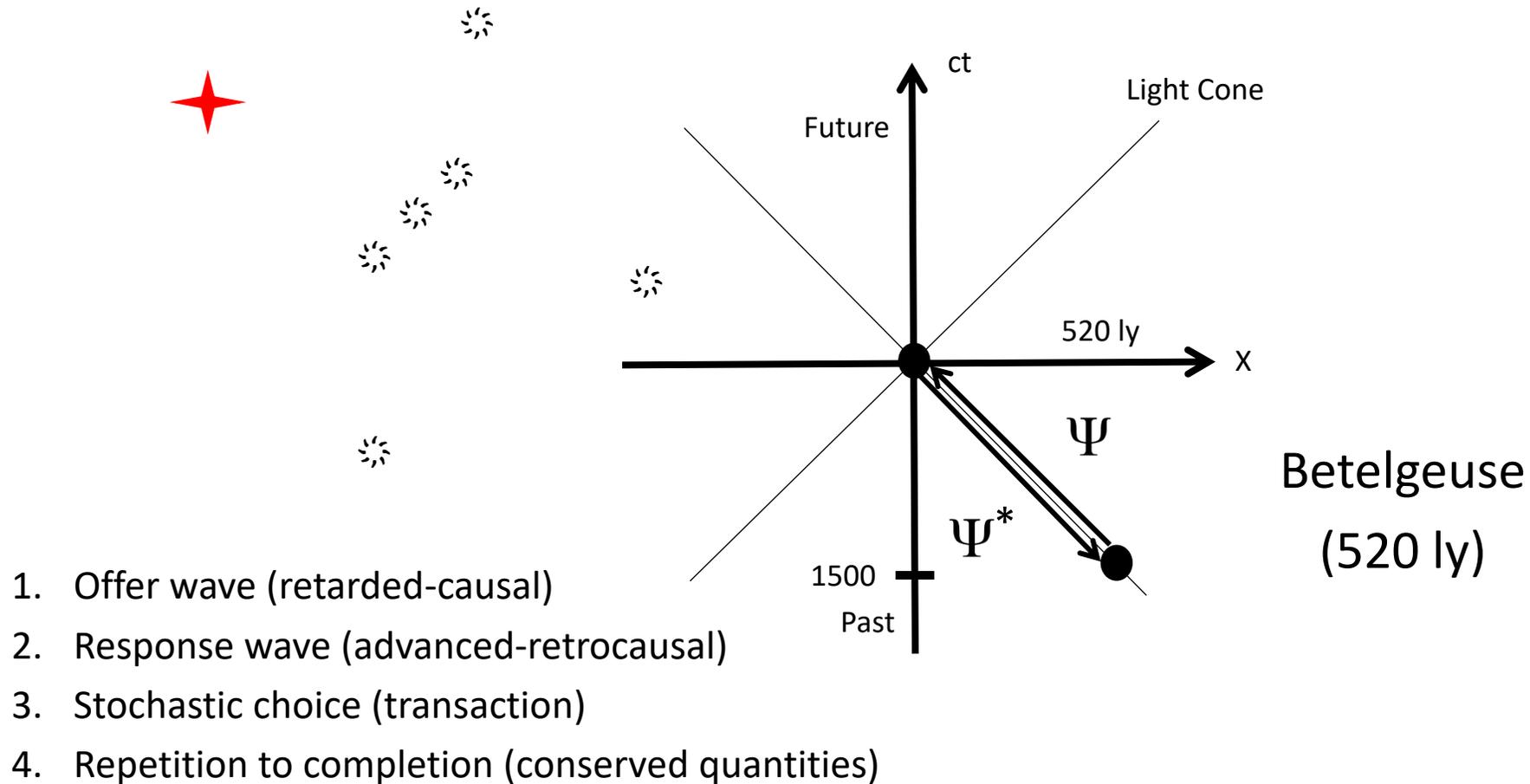
(Betelgeuse, Orion;  $d = 520\text{ly}$ )



## Quantum Handshake

# Starry Night – Transactional Model

(Betelgeuse, Orion;  $d = 520\text{ly}$ )



Quantum Handshake = Present Reality

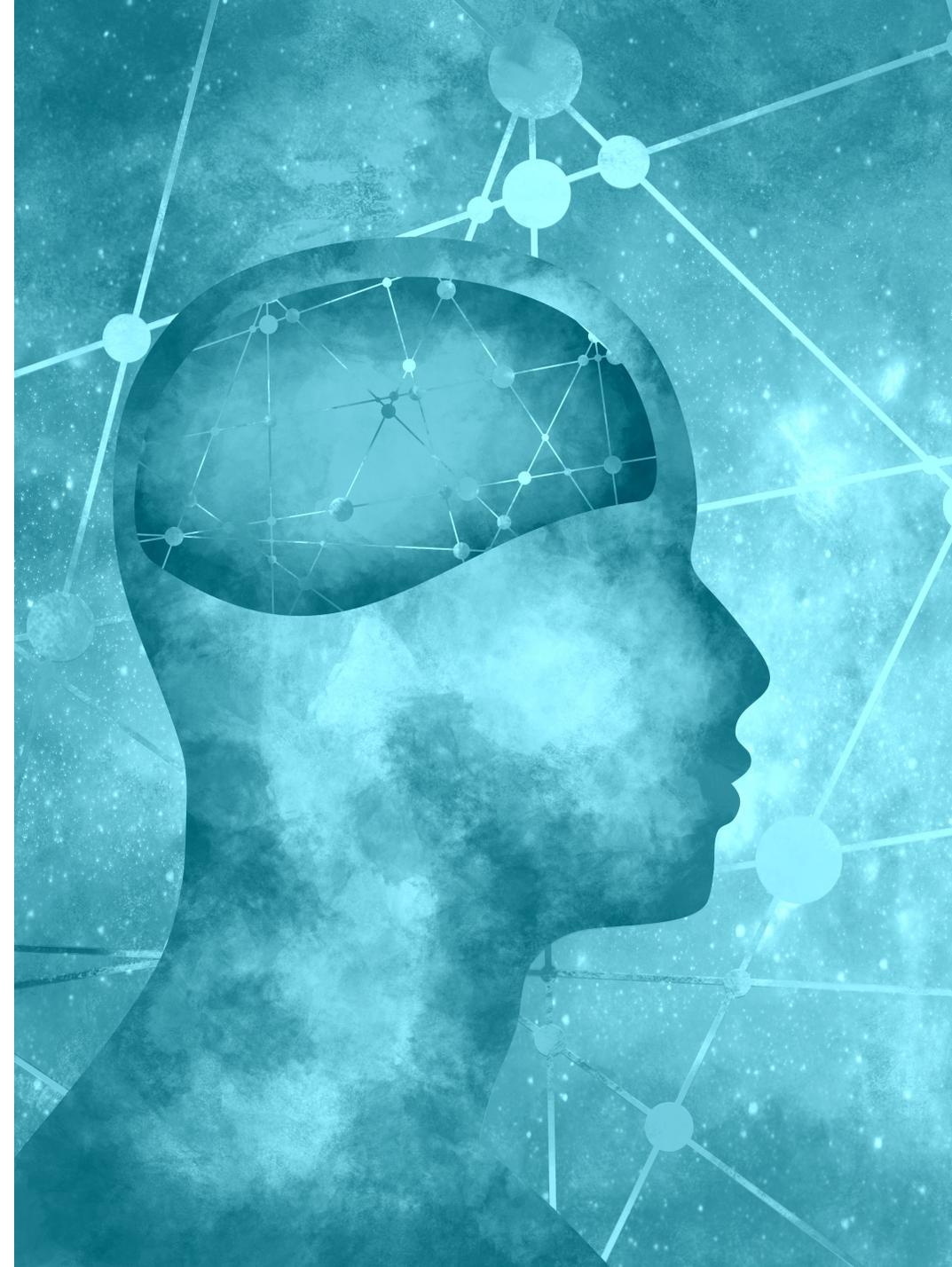
# Precognition (Classical Reality)



- Reported throughout history
- May confer survival advantages
- Rare but testable
- Demonstrates connection between present and future via consciousness

# Experiments in Precognition (presentiment, remote viewing)

- Radin (1997)
- Bierman (1997)
- May (2005)
- Bem (2011)
- Mossbridge, et. al. (2012)
- Graff-Cyrus (2016)



# Perceiving the Future News: Evidence for Retrocausation

## Graff-Cyrus Experiments 2016

Quantum Retrocausation III

AAAS Conference

15-16 June 2016

University of San Diego, San Diego, CA USA

American Institute of Physics (AIP)

Conference Proceedings

Volume 1841, Issue 1

<https://aip.scitation.org/doi/abs/10.1063/1.4982772>

### Perceiving the Future News: Evidence for Retrocausation

Dale E. Graff<sup>1, a)</sup> and Patricia S. Cyrus<sup>2, b)</sup>

<sup>1</sup>*PSI Seminars-Initiatives, Hamburg, PA 19526-8002 USA*

<sup>2</sup>*Siemens Corporation, Orlando, FL 32826-2301 USA*

<sup>a)</sup>Dale E. Graff: [mtviewer@dalegraff.com](mailto:mtviewer@dalegraff.com)

<sup>b)</sup>Patricia S. Cyrus: [patricia.cyrus@siemens.com](mailto:patricia.cyrus@siemens.com)

**Abstract.** Thirty-three exploratory psi investigations were recently performed using Conscious State Psi and Dream State Psi protocols for photographic material that did not exist at the time of the psi sessions. Results would provide evidence for retrocausation if the future photographs had influenced the sessions' data. The psi targets were Associated Press (AP) news photographs published in a Reading, PA area newspaper on a specific page three days in the future. These photographs were taken one day after the psi sessions. Following each psi session, and prior to the photograph's existence, perceptions were recorded in project records and email transmitted for date validation. Feedback was provided when the photograph was published. There were two phases: Phase I was an informal investigation performed by the principle author to evaluate project feasibility. Phase II was a formal investigation with a colleague 1,000 miles from the principle author and the area newspaper location. All data were evaluated by direct comparison to the intended photographs using numerical assessment scales and noting unique features. Data from 21 of the 33 sessions (64%) yielded sketches and narratives with medium and high degrees of correlations with the future news photographs. A subsequent binary analysis using control photographs yielded  $p = 0.040$ . Visual informational content of these future newspaper photographs had interacted with the brain's cognitive processes in a retrocausal sense. The future photographs affected the sessions' data. A subconscious interaction between the future and the present or past may be an on-going feature of the mental and physical universe. Suggestions for follow-on investigations into retrocausation are provided.

**Keywords:** retrocausation, precognition, premonition, presentiment, synchronicity, cognition, extra sensory perception (ESP), subconscious, Conscious State Psi (CSP), Dream State Psi (DSP), remote viewing, psychokinesis (PK)  
**PACS:** 01.70.+w, 01.90.+g, 03.65.Ta, 03.65.-w, 03.65.Ud, 03.67.Hk, 03.67.Mn.

### INTRODUCTION

The mental ability for perceiving approaching future events is considered to be a real effect by many individuals even though it is not formally accepted in most scientific areas<sup>1</sup>. The historic literature has many accounts of these effects, usually referred to as premonitions or future seeing<sup>2</sup>. In the field of parapsychological (psi) research, these experiments are referred to as precognition or presentiment, terms that mean prior to or before cognition. i.e., knowledge that comes before the events. Precognition can occur spontaneously and is not predictable from existing data or expectations. The term precognition does not imply anything about the source of the perceived information; it could be in the future and accessed through an activated neurophysiological process or it could be from the future and received passively by the brain's cognitive networks. The spontaneous cases of precognitions reported in the case study literature demonstrate their unexpected nature and suggest the later view; an aspect of the future reached

*Quantum Retrocausation III*  
AIP Conf. Proc. 1841, 030001-1-030001-10; doi: 10.1063/1.4982772  
Published by AIP Publishing. 978-0-7354-1511-9/\$30.00

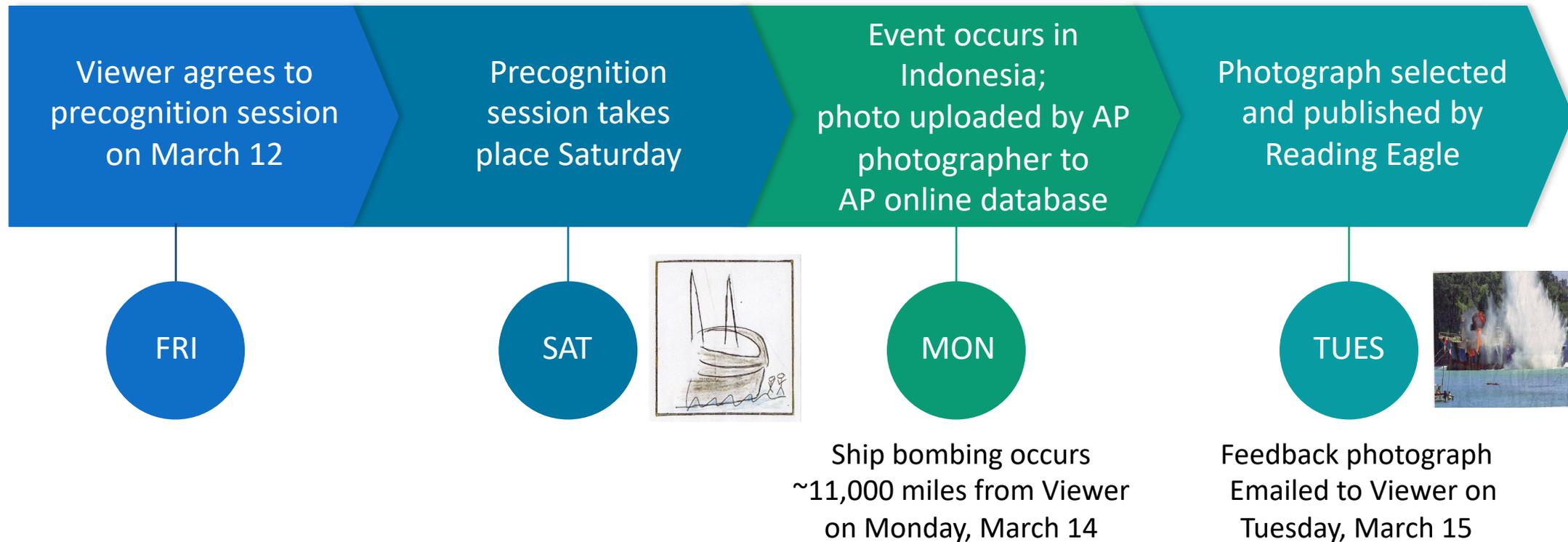
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# Graff-Cyrus: Protocol

- Goal: Describe photograph to appear **on page A6 of the Reading Eagle newspaper in the 'Around the World' section on Tuesday.**
- On previous Saturday/Sunday, Viewer attempts mental access to Tuesday's target photograph (conscious or dream state).  
**Note: Event has not occurred yet; photo has not been taken.**
- Viewer provides sketches, words and concepts about the target photograph.
- Viewer to Email session results to Tasker by Monday, 9:00 AM EDT.
- Event occurs on Monday – photo taken (AP photograph).
- Reading Eagle chooses single photograph Monday evening, publishes Tuesday morning.
- Viewer receives feedback (target photo) after paper published.
- Viewer may seek additional information after feedback to amplify session results.

# Graff-Cyrus: Example Timeline

MARCH - 2016						
M	T	W	T	F	S	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			
30	31					



# Graff-Cyrus: Results

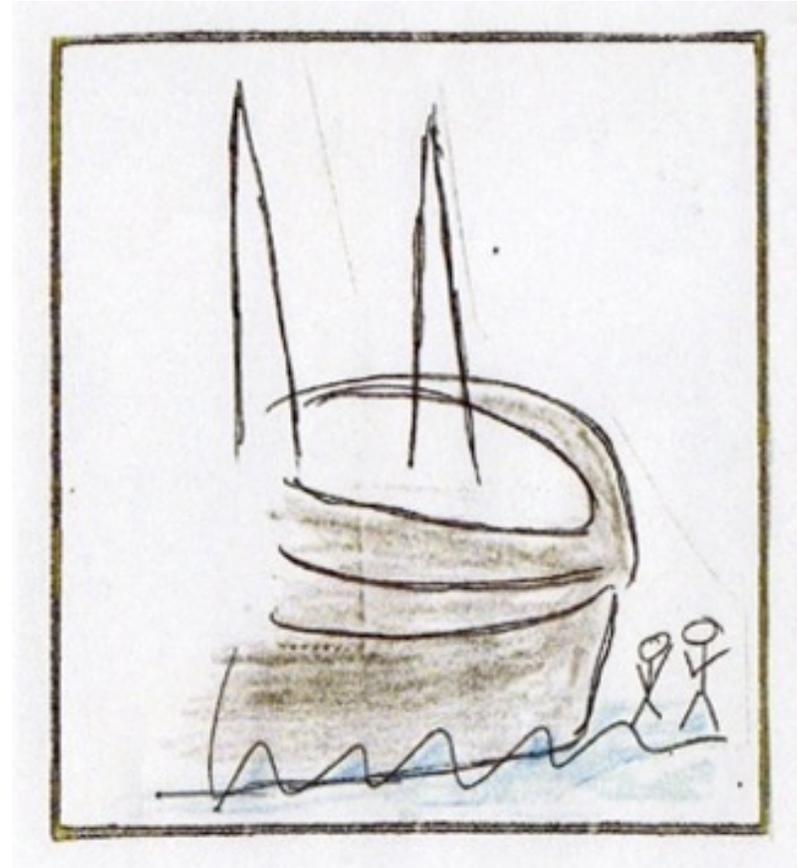
Note: >20 hours between RV session and event;  
>48 hours between RV session and photo publication

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Target Photograph – Indonesian Ship Bombing

Curving Metal  
Large Boat  
Shipwreck



Remote Viewing Sketch

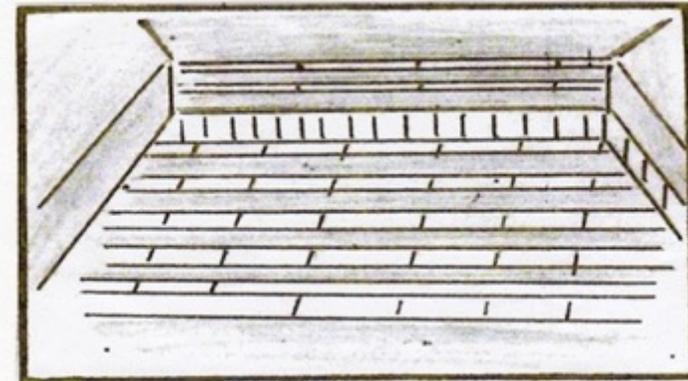
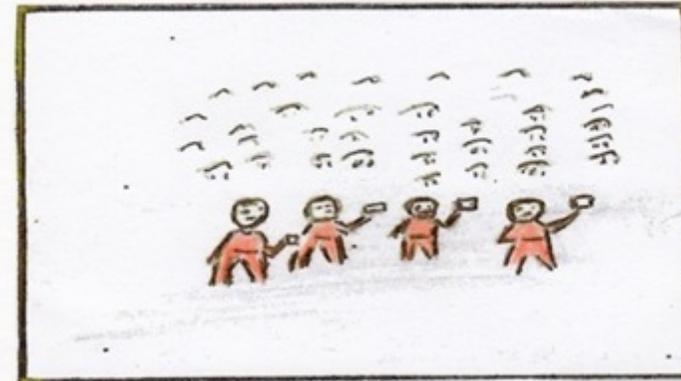
# Graff-Cyrus: Additional Results

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Target Photograph – Buddhist Monks

Hundreds of People in Choir Robes  
Brightly Lit Concert  
Inside a Building

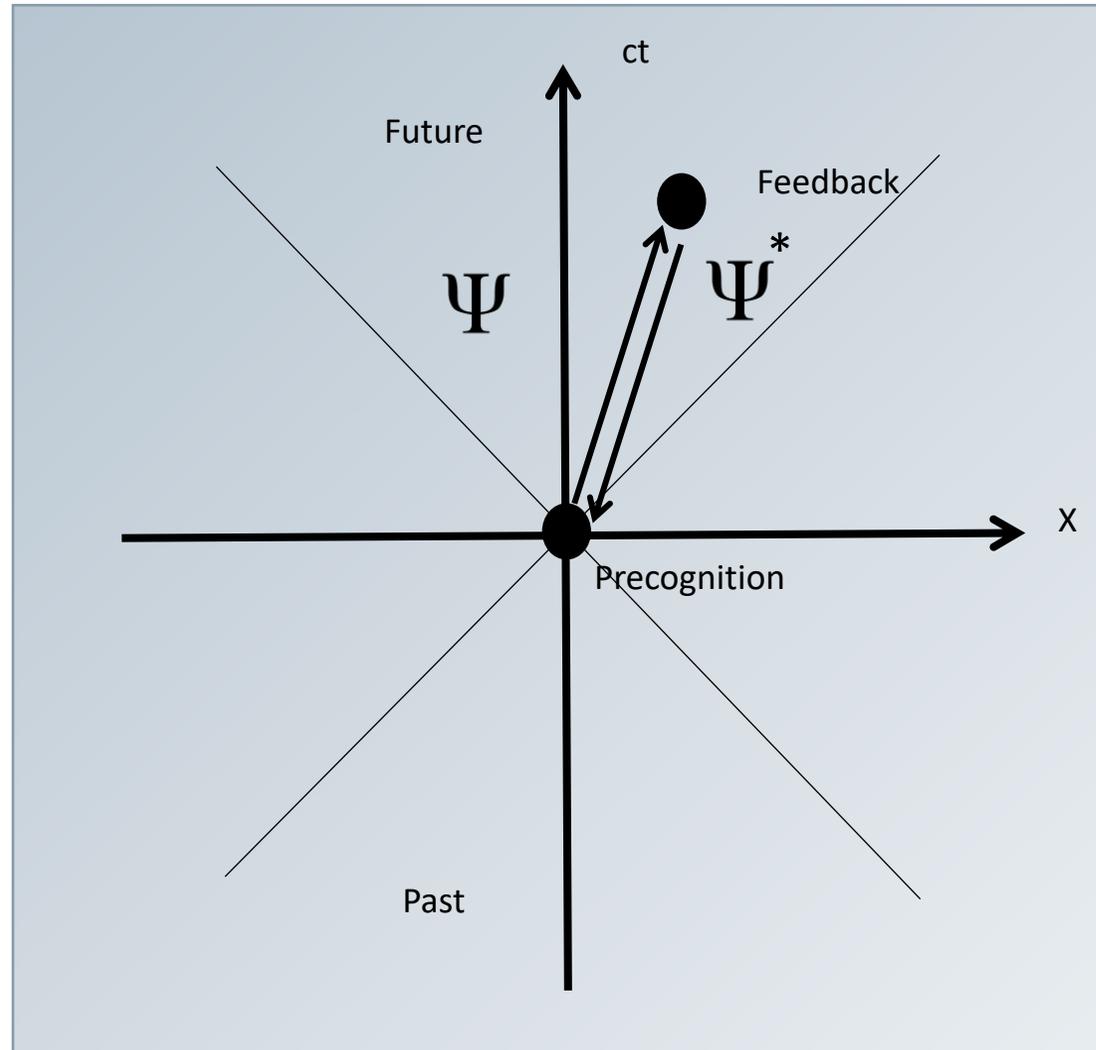


Remote Viewing Sketch

# Graff-Cyrus: Overview

- 33 sessions between February and mid-April, 2016
- Independent evaluators ranked data from 21 of the 33 sessions (64%) as having medium to high degrees of correlations with the target newspaper photographs
- Results statistically significant

# Precognition: Transactional approach



Sheehan, D.P., & Cyrus, P.S. (2018). Thermodynamic Retrocausal Model of Precognition, *Mindfield, Bulletin of the PA*, 10 (3), 98-102.



- Classical Reality cannot accommodate retrocausation. Quantum mechanics can.
- Some Quantum experiments can be interpreted as retrocausal.
- Precognition appears retrocausal.
- Precognition strongly suggests brain/mind/consciousness operates retrocausally, hence is quantum in nature.

# Precognition

- Most striking evidence of retrocausality in Classical Reality
- Best evidence for quantum nature of brain/mind/consciousness



# QUANTUM TIME MACHINES

Conference July 2022

## Quantum Time Machines: Design and Development (Information time travel)



University of San Diego, San Diego, California USA | 20-22 July 2022

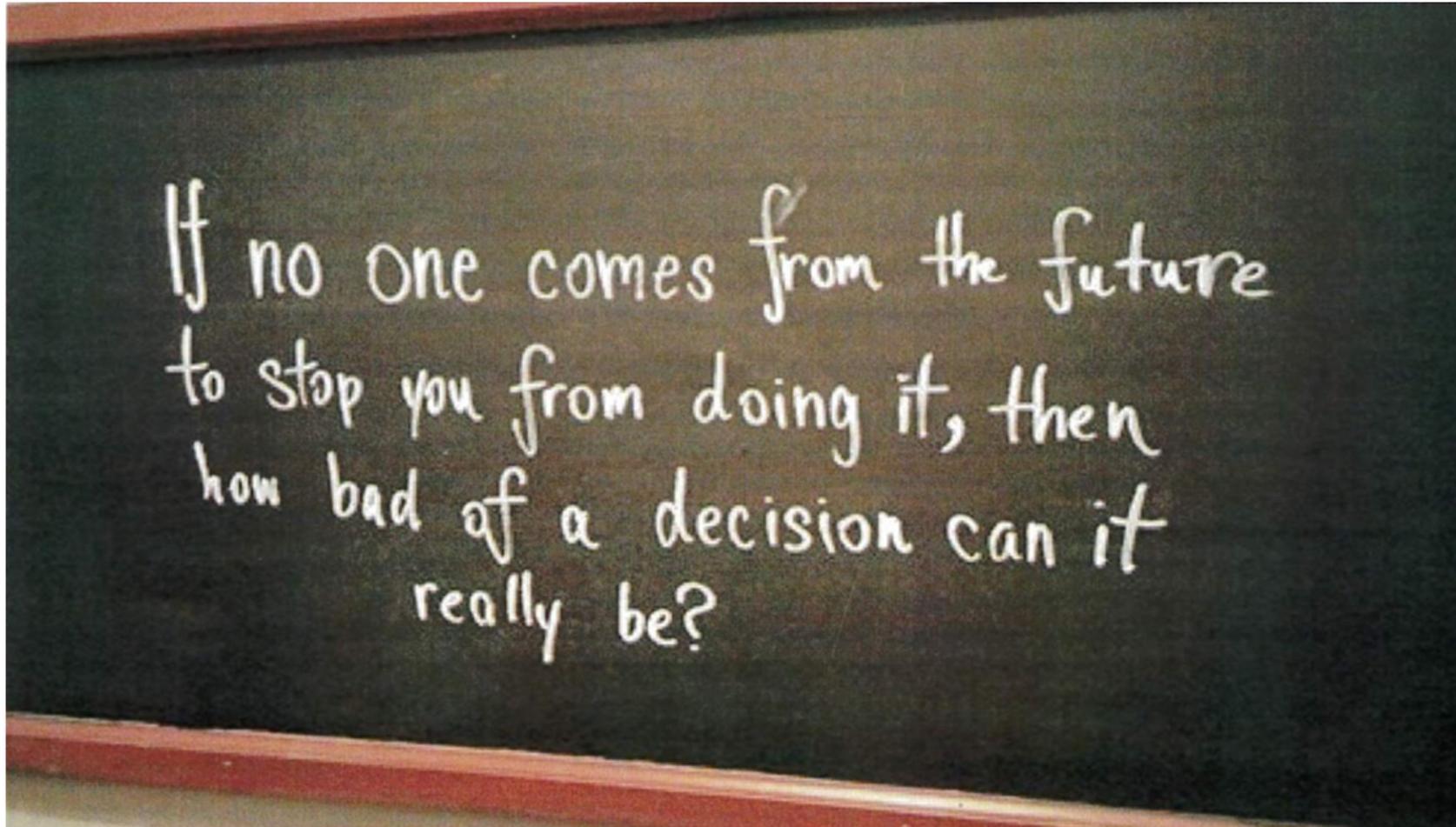
# Summary

- Physical laws time symmetric
- Classical reality – time asymmetric (SLTD)
- Quantum reality – time symmetric
- Experimental support for retrocausation: precognition
- Precognition quantum-thermodynamically explainable
- Mind/brain/consciousness likely quantum mechanical
- Quantum oracle?
- QTM: University of San Diego – 20-22 July 2022



Thank you

Daniel P. Sheehan, PhD  
Patricia S. Cyrus  
University of San Diego



Richard Shoup

*“Time present and time past  
Are both perhaps present in time future,  
And time future contained in time past....  
What might have been and what has been  
Point to the one end, which is always present...”*

- T.S. Eliot, Burnt Norton, The Four Quartets