

The background of the slide features abstract, hand-drawn red lines that resemble lightning or organic, flowing patterns. These lines are scattered across the white background, with some appearing as thin, delicate strokes and others as thicker, more defined shapes. The overall effect is artistic and somewhat ethereal, complementing the theme of the presentation.

Near-Death Experiences

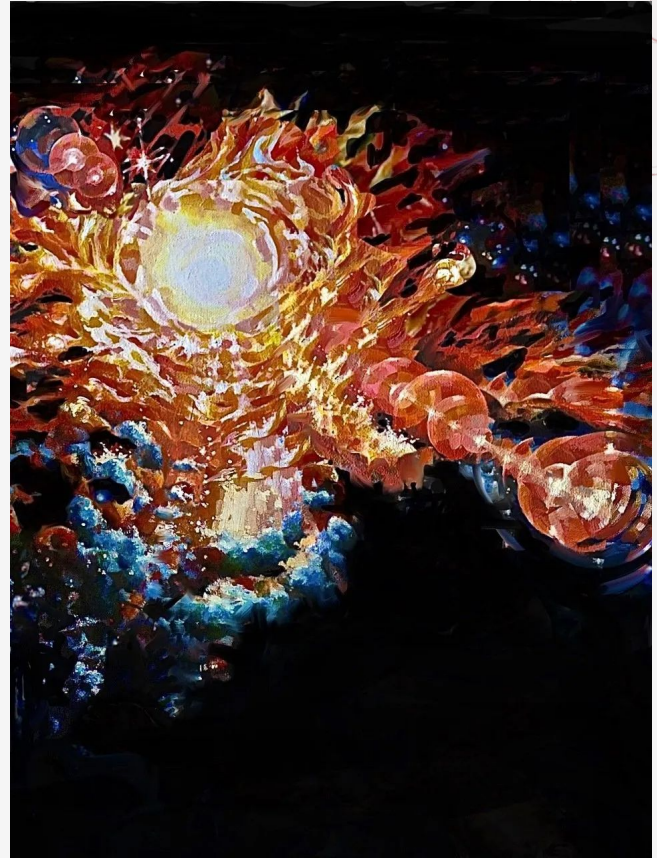
Meghan, Mariya, Julia, Annie, Sehwa

The background features a light beige gradient with faint, intricate red wavy lines that resemble topographical contours or organic patterns. These lines are more prominent on the right side and fade towards the left.

1 Definition & Overview

What are Near-Death Experiences?

Near-death experiences (NDEs) are “intensely vivid and often life-transforming experiences, many of which occur under extreme physiological conditions... in which no awareness or sensory experiences should be possible according to the prevailing views in neuroscience.”



Art by David Ditchfield depicting his NDE
(Psychology Today)

Rate of Occurrence & Research Implications

- National-level surveys among the general public showed that 4-8% of people report a NDE
- It is estimated that 10-23% of cardiac arrest survivors report an NDE
- Evidence suggests that death-feigning as a survival mechanism could be the evolutionary foundation of NDEs
- Connections between REM intrusion and NDEs

		0	1	2	3	4
<i>Time perception</i>	1. Your perception of time was altered	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Speeded thoughts</i>	2. Your thoughts speeded up	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Voice</i>	3. You heard one or several voices which did not have any material incarnation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Understanding</i>	4. You had the feeling of suddenly understanding everything about yourself, the others and/or the universe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Peacefulness/well-being</i>	5. You had a feeling of peace and/or well-being	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Harmony/unity</i>	6. You felt a sense of harmony or unity, as if you belonged to a larger whole	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Bright light</i>	7. You saw or felt surrounded by a bright light without any determined material origin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Unusual sensation</i>	8. You experienced unusual sensations (sight, hearing, smell, touch and/or taste)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Extrasensory perception</i>	9. You were aware of things beyond what your senses can usually perceive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Precognition</i>	10. You gained insightful knowledge about the future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Out-of-body experience</i>	11. You had the impression of being outside of, or separated from your own body	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Leaving the earthly world</i>	12. You had the sensation of leaving the earthly world or of entering a new dimension and/or environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Life review</i>	13. You saw or relived events from your past	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Encounter</i>	14. You encountered a presence and/or an entity (who might be deceased)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Non-existence/void/fear</i>	15. You had a feeling of non-existence, of being in a total void, and/or of fear	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Border/point of no return</i>	16. You came close to a border and/or point of no return	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Come back</i>	17. You made the decision, or were forced, to come back from the experience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Dying</i>	18. You had the feeling of dying and/or being dead	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Gateway</i>	19. You saw or entered a gateway (for instance a tunnel or a door)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Ineffability</i>	20. You sense that the experience cannot be described adequately in words	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NDE-Content Scale

- NDE Scale: created by Bruce Greyson in 1983 and as of 2020, was the most commonly used tool for standardized identification of NDEs
- Researchers developed a new scale for identifying NDEs, the NDE-Content Scale
 - More reliable and complete scale
 - Incorporates new understandings of NDEs
 - Retained the content of 15/16 of Greyson's items

NDEs vs. NDE-like Experiences

Classical NDEs

NDE phenomenon experienced in a context of “serious threat to the individual’s life and health conditions”.



Grey's Anatomy S3E16

NDE-like

NDE phenomenology emerges when there is an absence of severe physiological injuries to brain functioning.

such as during...

- Fainting
- Transitional states between wakefulness and sleeping
- Meditation
- Consumption of recreational drugs – DMT or ketamine





2

Psychological Impacts of an NDE

"NDEs challenge our understanding of consciousness, blending vivid perceptions with profound emotional impact."



Range of unpleasant NDE's:

- **Loss of Control:** Positive features turn frightening when the experiencer feels powerless.
- **Existential Isolation:** A distressing sense of being alone in an empty void.
- **Hellish Imagery:** Rare reports of dark landscapes, demonic beings, or terrifying noises

“Heightened fear, anxiety, or detachment may prime the brain for altered states of perception during an NDE”



Influence of Personal Factors:

- **Spiritual Beliefs**
- **Cultural Background**
- **Personality Traits**

“The NDE might merely be considered a sort of illusion...representing reality in the absence of usual sensory information”



Common Features of NDEs:

- Tunnels
- Bright Lights
- Out-of-Body Sensations
- Meeting Deceased Loved Ones

Key Emotions:

- Profound Peace
- Euphoria
- Joy

“Personality changes from the NDE typically take several years to fully reveal themselves” (Pratte, 2006).



Long-term Changes:

- Reduced Fear of Death
- Increased Empathy & Spiritual Openness
- Re-evaluation of Life's Purpose & Priorities

Challenges:

- Difficulties Integrating the Experience
- Strained Relationships & Isolation
- Changes in Values & Spiritual Beliefs

Near-Death Experiences Under Scientific Scrutiny



The AWARE Study:

- Initiated in 2008 by Dr. Sam Parnia (University of Southampton)
- Collaboration among 25 hospitals globally.
- Studies patients revived after being clinically dead (no breath, pulse, or brain activity)

Research Focus:

- Understanding self-awareness and subjective psychological experiences during clinical death.

Near-Death Experiences Under Scientific Scrutiny

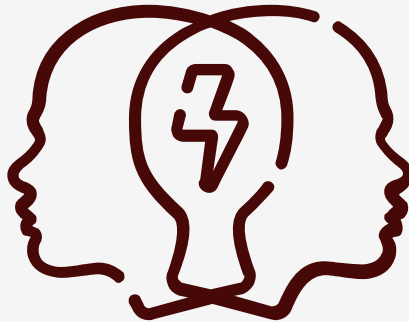


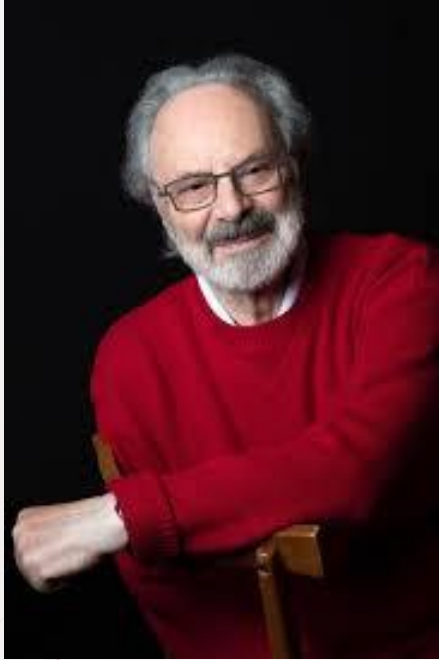
Results:

- **Vivid, similar experiences reported by individuals revived from clinical death.**
- 1) *Moving through a tunnel toward a bright light*
- 2) *Most NDEs are positive, leading to profound personal changes:*
 - a) *Increased happiness and calmness.*
 - b) *Reduced materialistic tendencies.*
 - c) *Rare cases describe unpleasant experiences.*
- 3) *Individuals often return with a changed outlook on life and a deeper sense of purpose.*

<https://www.youtube.com/watch?v=VmVWuswEBSk> 3:00~

Is It possible to Feel Emotions Without Breath, Pulse, or Brain Activity?





Dr. Thomas R. Verny

- Proposed four hypotheses about the **mind-brain relationship**.
 - Mind as Independent of Physical Laws
 - Mind as an Emergent Property of the Brain
 - Mind as a Result of Quantum Processes
 - Mind as a Construct of Information Processing

1. Mind as Independent of Physical Laws

: The mind exists separately from the brain and is not governed by physical laws.



- The mind is **separate from** the physical body and brain.
- The mind exists on its own and could be eternal, **even after the body dies**.
- This belief is similar to **many spiritual or religious views**, which see the mind or soul as separate from the physical body.

2. Mind as Emergent Property of the Brain

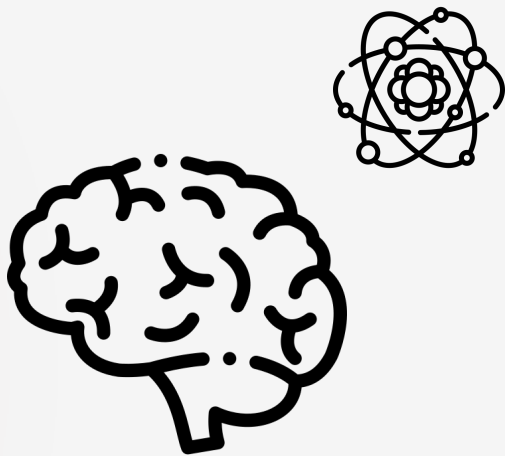
: The mind is seen as a product of complex brain processes.



- The mind is a result of complex brain processes. In other words, the brain's activity creates the mind, but the mind is not simply the brain—there's something more.
- Like how a team of workers creates a company, but the company itself is not the same as any one worker.

3. Mind as a Result of Quantum Processes

: Quantum mechanics (the science of tiny particles) might explain consciousness.



- The mind comes from how particles inside **neurons (brain cells)** behave at the **quantum level**.
- **Tiny, invisible particles inside our brains** may be responsible for **creating thoughts, feelings, and consciousness**, much like how a computer chip runs programs.
- However, this is still just an idea with no strong evidence yet.

4. Mind as a Construct of Information Processing

: The mind is like a computer program, and the brain is the computer.



- The brain processes information (like sensory data and memories), and the mind is the result of this processing.
- **Mind** is like the **software or apps** running on the computer (Brain). It's the result of how the brain processes the information it receives.
- For example, when you see a picture of a dog, your brain processes the image, and your mind recognizes, "This is a dog."

Mind - Brain Relationship with Four Theories

How it's possible to experience NDEs (Near-Death Experiences)?

- **First hypothesis—"Mind as Independent of Physical Laws"**—is the most fitting explanation.
 - The mind exists **separately from** the brain and body.
 - Even if **the brain is "offline"** (no pulse, no breath, no brain activity), **the mind could continue to exist and experience** things independently.
- **Second, Fourth Hypothesis**—The mind depends on brain activity.
- **Third Hypothesis**—This idea lacks scientific evidence.

However, our current understanding of matter alone cannot fully explain the nature of the mind.

Needs further exploration about relationship between the mind and the brain.

The background of the slide features a faint, light-colored map of the continents of North and South America. Overlaid on this map are numerous thin, wavy, reddish-brown lines that resemble topographical contour lines or perhaps stylized representations of rivers and terrain. The overall aesthetic is academic and thematic, likely related to the geographical or cultural focus of the presentation.

3

Historical/Cultural Views of NDE'S

Historical Views

While researches like Raymond Moody have revolutionized the idea of near-death experiences, these ideas have remained a constant throughout history

- The idea of NDE's have been cited dating back to Ancient Greece - often mythologized rather than viewed through a scientific lens

Plato's "Myth of Er"

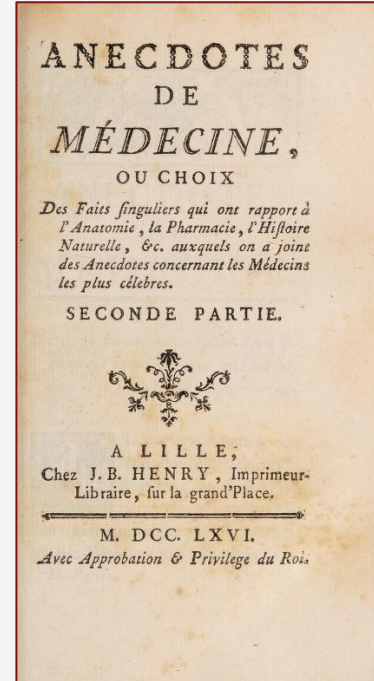
- Details the story of a soldier, Er, killed in battlefield
 - Right before being cremated, Er awakens ten days later and describes the afterlife
 - The myth provides context for the introduction of NDE's and the religious undertones

Historical Medical Findings

- French Medical Records from 1740 reveal one of the first known reference to a patient's NDE that displays similarities to modern understandings

Pierre-Jean du Monchaux

- A military physician who wrote the report that does not rely on the spiritual as an explanation
- The archaeologist who uncovered this report relates Monchaux findings to the modern NDE scale
- However, he hypothesized that patients had a lack of blood flow in their veins and an abundant to their brains - causing an NDE



Case Study of Japanese and Western NDE's

- Analysis by Masayuki Ohkado & Bruce Greyson to understand the way culture can impact NDE's



Table 1 *Elements Observed in Japanese NDEs*

Element	Number of cases
Occurring during the NDE	
Ineffability	3
Hearing oneself pronounced dead	3
Feelings of peace and quiet	10
Hearing unusual noises	1
Seeing a dark tunnel	1
Being "out of the body"	4
Meeting "spiritual beings"	13
A bright light	3
Panoramic life review	0
A realm in which all knowledge exists	1
Experiencing a heavenly place	16
A realm of bewildered spirits	0
Experiencing a "supernatural rescue"	0
Sensing a border or limit	12
Coming back "into the body"	0
Occurring as NDE aftereffects	
Frustration relating the experience to others	1
Subtle "broadening and deepening" of life	13
Elimination of fear of death	13
Corroboration of events witnesses while "out of the body"	2

Note. *N* = 22.

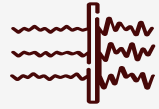
★ Study conducted by Tachibana Takashi

- 22 "experiencers" - 14 were men, 8 women
- Ages varied greatly

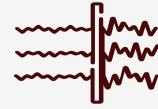
★ Results found that Japanese NDE's are phenomenologically mostly similar to Western NDE's

- Feelings of light and peace were reported in most of the case studies

"I have never felt such a good feeling. I can't compare it with any other experiences...I didn't want anything. Like I was 100 percent content. Nobody will understand how I felt until they experience themselves."



Differences In Results

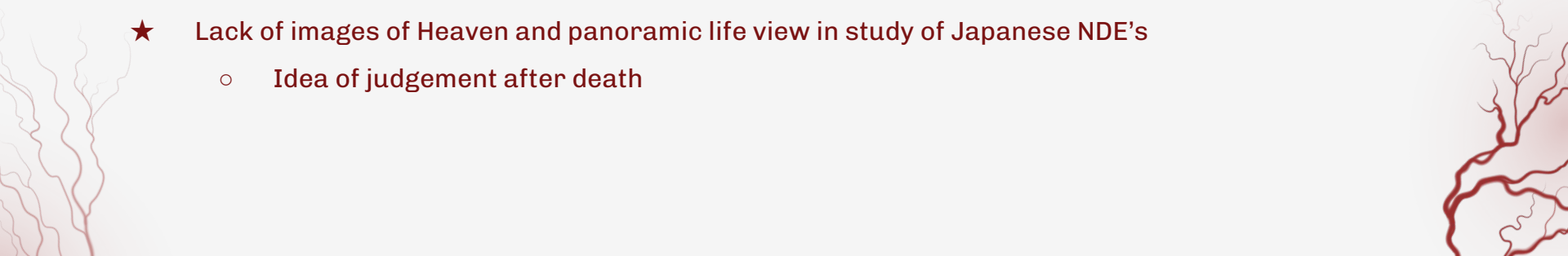


Lack of Personification of the “Bright Light”

- ★ While this idea existed in both, the patients relationship with this light differed among cultures
 - The results displayed a lack of personification of the light in Japanese culture compared to Western
 - Light = Love is an idea present in the West
 - Possible Christian influence - “God is light/love”

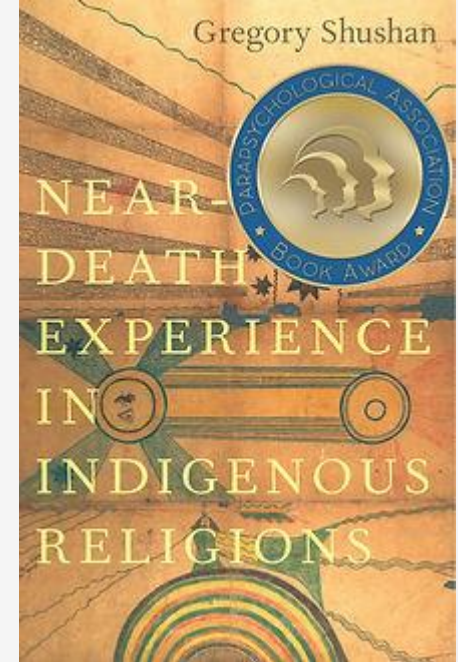
Images of Heaven and Panoramic Life View

- ★ Lack of images of Heaven and panoramic life view in study of Japanese NDE's
 - Idea of judgement after death



NDE's in Indigenous Cultures

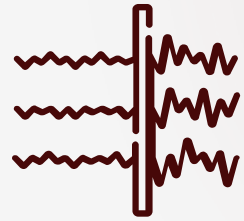
- The book delves into the importance of “how the experience is understood” in Indigenous cultures around the world
 - “Impressions of objective concepts made manifest by the individual mind”
- Many Native American religious beliefs originated from NDE's
 - Traveling through darkness was a recurring theme
 - Lack of life review
- Despite cultural differences - the book highlights the shared element of human spirituality
- The role of culturally accepting NDE's



The background features a light pink-to-white gradient. Overlaid on this are several thin, dark red, wavy, and irregular lines that resemble stylized waves or organic patterns. These lines are more concentrated on the right side and bottom of the frame, with some fainter lines extending towards the top left.

4 Personal Experiences

Distressing NDEs



- Loss of Control
 - Features that are seemingly pleasurable that strike the victim as hostile or threatening
- Isolation
 - Feelings of emptiness, void, annihilation
- Hellish
 - The blunt vision of hell and hellish imagery

Pam Reynolds

- Had to undergo brain surgery to treat an aneurysm
- Whole body and brain shut down
- Proclaimed clinically dead
- A musical note pulled her “out of her head”
- Saw her body and the tool and the doctors performing surgery during her out of body experience
 - “Wonderful feeling to be free of it”
- Recalled a conversation between the doctors
- 27 on the Greyson NDE scale
- Fully recovered from the surgery



<https://www.youtube.com/watch?v=osfIY4B3y1U>

Criticisms/Explanations

- Remained conscious enough to hear the conversation and the song
 - Anesthesia awareness
 - Could have been aware of her blood vessel problem
 - Ears and eyes were gauzed up
 - Not tightly fitted
- Could have felt the skull reverberating through her skull
 - Anesthesia awareness
 - Schemas
- Body and soul disconnections
 - Consciousness can exist independently of the brain
- Afterlife
- Hallucinations
 - Lack of oxygen, anesthesia
- Psychological defense system
- Religious background
- No explanation!

Nancy Rynes

- Got struck by a SUV while biking on a roundabout
 - Dual consciousness
- Received surgery for her broken bones
 - Second NDE
- Her life went from atheist to spiritual in the matter of days
 - Scientist, grew up atheist after straying from religion
- Had a eye opening NDE while dead



<https://www.youtube.com/shorts/dJT04mGc3k>

During Her NDE...

- Doctors did not guarantee she would live during her surgery
 - Gave her big fear of death
- Died during surgery for 2 minutes
- She “woke up” during anesthesia in field
- Questioned where she was and if she died
 - “If I died, shouldn’t I be in hell?”
- Heard a general voice welcoming her
- Met her divine teacher
- Went on a series of journeys that felt like months with her divine teacher
 - Teacher wanted her to become a person she would be proud to be on Earth
- She did not want to go back on Earth
- When she awoke, she woke up screaming
- Went on to become very spiritual and spread her word through talk shows, podcasts, interviews, and a book



<https://www.youtube.com/shorts/bEDQOpLMByg>