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Reflections on Museums and Transcendence

*Direct Vision: A Research Program Exploring
Extra-Ocular Vision in Children*

Kundalini Awakening: An Emergent Phenomenon



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Why EdgeScience? Because, contrary to public perception, scientific knowledge is still full of unknowns. What remains to be discovered—what we don't know—very likely dwarfs what we do know. And what we think we know may not be entirely correct or fully understood. Anomalies, which researchers tend to sweep under the rug, should be actively pursued as clues to potential breakthroughs and new directions in science.

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Lois H. Silverman

Reflections on Museums and Transcendence

For more than three decades, I have enjoyed a rewarding career as a museologist engaged in the scientific study of museums. I specialize in the use of social science methods to describe and understand people’s *experiences* in museums, which are more varied than mainstream science might suggest. Learning of my research, people often ask me which museums I think are “the best.” I always answer by describing museums in which I have had what I now call a *transcendent* experience: where I interacted with a museum space, object, and/or other people in a deep way that moved me past my concerns of the day, no matter how big they were, to a very different state of mind. And somehow, mysteriously, I felt changed.

For example, I often rave about the American Visionary Art Museum in Baltimore because my first time there, I was reeling from the loss of someone I loved—and viewing an exhibit of otherworldly works by self-taught artists coping with addiction reminded me that it is human to struggle and strive toward healing. I often rave about the Vilna Gaon Museum of Jewish History in Vilnius, Lithuania. Not just

because I had ancestors who perished in the Holocaust and this museum, in essence tells their story, but because there I gained a deep appreciation for the elderly Holocaust survivors and the young Lithuanian activists who, despite differences, worked side by side. Other times, I’m back in the dark exhibit halls of the American Museum of Natural History in New York. There, as a child on a school trip, the intense lighting on the brilliant gems and meteorites transported me to a world of awe and sparked a host of new questions about the universe that I asked my teacher and my parents.

To be sure, I couldn’t agree more with anthropologist Nelson Graburn’s observation, made back in 1977, that a museum can meet the human need for “a personal experience with something higher, more sacred, and out-of-the-ordinary than home and work are able to supply” (p. 3). Surprisingly, museologists tend to consider these to be anomalous museum experiences, at least in comparison to far more typical museum visit outcomes, like acquiring new knowledge or enjoying quality time with family or friends. For years, I’ve been trying to explain this *other*



potential of museums, and why it matters so much. In my early research, I wrote about visitor meaning-making, and in 2002, called it “magic”—museum “moments [that] just seem to defy explanation, as if something unseen is truly at work” (p. 7). In 2015, I was inspired when The American Alliance of Museums introduced their annual conference theme, “The Social Value of Museums: Inspiring Change,” with the bold statement that “from their origins, museums have continually evolved to nurture and sustain the human spirit.” Since then, I’ve turned my attention to substantiating that claim. To my mind, the concept of *transcendence* offers invaluable lenses.

Why on earth am I talking about things like “transcendence” and “the human spirit” in relation to museums’ social value? I see at least three major reasons. First, the seemingly personal phenomenon called transcendence, in fact, relates in concrete and profound ways to our social selves, our relationships, and the state of our world. Secondly, as museums increasingly aim to promote social justice (e.g., Sandell, 2002) and support human diversity (e.g., Betsch et al., 2019), *spiritual* diversity must be part of their efforts. Third, museums, like human beings, have two sides—factual *and* emotional, rational *and* non-rational, scientific *and* magical—and I believe the museum field is long overdue for a more integrated approach in its work. So, in this short meditation, I’d like to do two things: 1) present three views on transcendence gleaned from various fields; and 2) reflect a bit on where museums are realizing, as well as falling short of their remarkable potential to understand, engage, and serve “the human spirit.”

What is Transcendence?

In popular use, transcendence generally refers to “going beyond” usual limits or ordinary experience; it is a state of being and a human ability. In *The Biology of Transcendence: A Blueprint of the Human Spirit*, Joseph Chilton Pearce defines transcendence as both a biological fact and a human need (2004). Our brains are hard-wired to reach beyond the limitations and challenges we face, to outgrow our former selves, and to even get beyond ourselves by connecting with others. So, for example, individual or *self-transcendence* can happen in an art museum when a person struggling with grief views an exhibit of work by others coping with *their* challenges, and it inspires her to pick up the pieces and carry on.

Secondly, transcendence is also a social issue: it often requires interaction with others and has consequences for the groups in which we live, including society itself. For example, as the media shows us—all too often these days—transcendence is *what we do*, especially following natural or human-made disaster. Facing collective challenges, people rally and

act together, we help each other, and we work to rebuild. According to social psychologist Jonathan Haidt, transcendence involves a deeply good feeling of losing your sense of separateness as you become part of something much larger (2012). Even our options for transcendence involve and affect society. Some people find transcendence in playing or watching sports, or doing service, or as Haidt points out, in religion, war, or terrorism. So, for example, collective or *social transcendence* is what’s supported in a cultural history museum when it offers people of different backgrounds a chance to work together on a shared challenge, like how to tell a difficult chapter in a country’s history to future generations.

Last but not least, transcendence involves the metaphysical. Merriam-Webster’s Dictionary defines this as “of or relating to a reality beyond what is perceptible to the senses” (2023), from states of consciousness to spiritual beings. Psychiatrist Viktor Frankl saw transcendence as the deepest meaning-making, of humanity’s biggest mysteries, like the purpose of life, human existence, and God (1985). Others view this as spirituality, or the different beliefs and practices about the unseen found in nearly every culture. And so, for example, what we might call *material transcendence*, or going beyond the visible and physical, happens in a natural history museum when those beautiful gems and meteorites prompt a young child to consider her place in the universe and discuss this with others.

In sum, there are three kinds of transcendence that museums can foster: self-transcendence, collective transcendence, and material transcendence. Can museums really do all this? If transcendence is a biological fact and a human need; a social issue; and a source of deepest meaning, then this is how museums can “nurture and sustain the human spirit.” How are museums doing it? Let’s take stock.

Museums and Transcendence: Taking Stock

Museums have long been focused on and effective at fostering visitors’ self-transcendence, through their educational missions and their growing engagement with people in a variety of life circumstances. As research demonstrates, museums can change individuals’ skills, knowledge, attitudes, behavior, condition, and life status (Institute of Museum and

Library Services, 2023). And, as museums have increasingly turned to more intentionally social agendas (e.g. Silverman, 2010), they’re finding they can help people transcend egotism, practice empathy, and connect meaningfully with others. Some good examples are art tours for people with dementia and their caregivers, like those pioneered at New York’s Museum of Modern Art, and educational programs that bring so-called enemies together, like the Ulster Folk and Transport Museum in Ireland uniting Catholic and

Protestant children. Museums also help people evolve new selves through skill-building and career development initiatives, like those for teens at the Cleveland Botanical Garden and for veterans seeking to re-engage in civilian life offered by the Rubin Museum in New York.

Fueled by pressing social issues and political divides both before and throughout the Covid-19 pandemic, the museum field has turned much attention to visitors' collective transcendence. Places like the Missouri History Museum and the Anacostia Community Museum in Washington, DC, work to build and sustain group engagement around social problems, offer safe spaces, and respond to urgent needs. Institutions like the National Museum of African American History and the United States Holocaust Memorial Museum have become important models of collaboration with community, legal, and judicial institutions to help foster change in societal systems. Still, other museums, like those that constitute the International Coalition of Sites of Conscience, work across continents to confront global issues. While it is challenging to document visitors' collective transcendence, smart evaluation experts are making important inroads.

To be sure, I'm most intrigued by the third realm, material transcendence. Are museums doing this, too? Well, they've always been places where people may contemplate, imagine, and question things that can't be perceived with the five senses, including the past and the future. This happens naturally for many visitors, while others are inspired to wonder and awe by impressive museum architecture or exhibit design. Clearly, some objects and entire museums easily evoke life's big questions, like those of great beauty or deplorable injustice.

But compared to the other two kinds of transcendence, the metaphysical is not a widespread, intentional part of the museum's evolving social agenda—for several reasons. It involves what can't be seen, so how can it be measured? Maybe it doesn't exist! How could museums possibly foster experiences so idiosyncratic and mysterious? Talk of metaphysics and spirituality makes some people very uncomfortable. Museums might also worry that the public, the media, or funders will hear "metaphysics" but think "religion," and that is a very sensitive topic with great potential to upset and offend. It's no wonder museums have tread lightly in the realm of material transcendence to date, especially in the United States.

At the same time, I find it increasingly hard to ignore signs—from research as well as museum practice—that fostering material transcendence just may be the most important kind of transcendence museums could serve. What research?

Global studies by the Pew Research Center document that many people worldwide view spirituality and religion

...museums, like human beings, have two sides—factual and emotional, rational and non-rational, scientific and magical...

as two very different things, and some describe themselves as "spiritual but not religious" (e.g., Lipka and Gecewicz, 2017; Pew Research Center, 2018). According to research by the Fetzer Institute, many people are seeking transcendence outside of houses of worship, and as a result, "religious and spiritual innovation is emerging in surprising places" (Scheidt and Campbell, 2021, p. 3). To my mind, museums seem ripe for the job.

In addition, the social work field makes clear a hugely compelling point: material transcendence is often the key that unlocks both self-transcendence and collective transcendence. In other words, how we relate to those things that can't be seen can play a pivotal role in our abilities to deal with and transcend individual and societal challenges. For example, some measurement scales used globally to gauge the construct known as "quality of life," like that of the World Health Organization, include questions about spirituality, while several arenas of social work practice, like end-of-life care, routinely assess clients' spiritual resources because they are important in so many cultures (Callahan, 2017). And nothing better exemplifies the role of spirituality in social change than the work of Reverend Martin Luther King, Jr., the Dalai Lama, and many other Nobel Peace Prize winners. They offered the world spiritually-informed approaches to profound collective challenges.

But even more than research, I'm excited by the growing number of museums in pockets around the world that are working to foster material transcendence for visitors, whether they call it this or not. What are they doing?

First, despite the challenges, some museums *do* address religion—or, specific organized systems of particular beliefs and practices. For example, St. Mungo Museum of Religious Life and Art in Glasgow has long worked with people of diverse faiths, or none, to interpret differences as well as common ground among religions and worldviews. As religious conflicts continue to fuel unspeakable violence in the world, fostering understanding and acceptance of religious diversity is critical work for museums.

Secondly, some museums engage what scholar Christopher Meehan has called "secular spirituality," or the search "to find meaning and purpose in *universal human* experience rather than religious experience *per se*" (2002,

p. 292). My favorite example of this is the Museum of Broken Relationships, a brick-and-mortar site in Croatia and traveling exhibit initiative that has been hosted in over 33 countries to date—and by many accounts, indeed fosters transcendence through the remarkably universal experience of ended relationships.

Third, museums are also creating opportunities for visitors to experience altered states of consciousness, from the growing trend of yoga in the galleries to meditation programs to the use of contemplative education principles in museum education. I haven't yet scored a ticket, but I'd love to take part in the DreamOver at the Rubin Museum of Art in New York. For one night, participants get to sleep under a work of art, and the next morning, they talk about the unconscious, their dreams, and what they might mean with a psychoanalyst and a Buddhist teacher. The event is always a sell-out.

Last but not most auspiciously, many new projects and museums are forming around explicitly metaphysical collections and missions. For example, CoSM, The Chapel of Sacred Mirrors in Wappinger, New York, is both a permanent public exhibition of the visionary art of Alex and Alyson Grey, and a “place of contemplation & worship for community honoring the practice of art as a spiritual path” (CoSM, 2023). I'm especially heartened by the recent plethora of museum exhibitions around the world that directly and respectfully address the subjects of magic, the supernatural, and the occult (Tully, 2021). From displays of objects used by Spiritualist mediums to communicate with the deceased to art inspired by supernatural beings, museums have a critical role to play in the metaphysical education of the world.

To this end, the science of museology itself can go beyond its own limitations by embracing metaphysical perspectives. In so doing, transcendent experiences in museums, like mine and many others, become much more than anomalies. Viewed through metaphysical lenses, they gain significance as meaningful experiences of, for example, clairvoyance in the Visionary Art Museum, spirit communication in the Vilna Gaon Museum of Jewish History, or perhaps even an alien encounter in the American Museum of Natural History. Such experiences suggest the need for an *occult museology*, a frontier exploration of the unseen dimensions of museums that just may offer a radical re-visioning of the relationship between “museums and the human spirit.” Overall, the lenses of transcendence provide an integrated way to advance museums' evolving social and spiritual value.

To my mind, material transcendence, in particular, beckons us toward an exciting new museological endeavor that will further expand our understanding of museums and their vast potential.

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Note: Feature image generated using the prompt “large room gem exhibit at the American Museum of Natural History with back view of a very small young girl with brown hair contemplating the magnitude of the universe” by Bing, Copilot, 2024 (<https://www.bing.com/images/create>).

Nili Bar, Alex A. Álvarez, Rodrigo Arriola, Gaia-Velvela Barbakow, Eros Quintero, Javier Martinez, Alfredo Silva, Carlos-Iván López-Miranda & Ramsés D'León

Direct Vision: A Research Program Exploring Extra-Ocular Vision in Children

Unidad Parapsicológica de Investigación, Difusión y Enseñanza (UPIDE) Centro de Investigación de la Sinergia y la Consciencia (CISC)

Extrasensory perception (ESP) is the ability to perceive external information without relying on the bodily senses, including telepathy, clairvoyance, remote viewing, and precognition (Cardeña, 2018). Further, popular accounts and clinical reports have appeared over the years describing a rather incredible capacity of some individuals to sense with their fingers the properties of objects that normally only the eyes can detect (Makous, 1966).

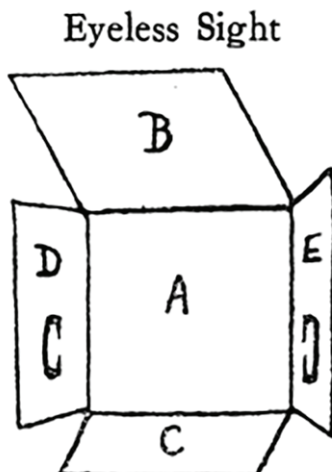
This area of interest within ESP research is called direct vision (DV), also known as extra-ocular vision (Grinberg, 1983; Irwin, 2018), intuitive vision, dermo-optical perception (Gardner, 1966; Zabala et al., 1967), or paroptic vision (Chertok, 1966). This phenomenon is described as the ability to replicate a visual experience, not from a retinal source, but from a source yet to be determined.

Various theories have been proposed to explain the causes of this phenomenon; some relate it to psychic development (Grinberg-Zylberbaum, 1983), while others suggest that the skin, as an organ, senses what may be interpreted by the brain as optical input (Sumner-Rooney et al., 2020).

Early Research on Direct Vision

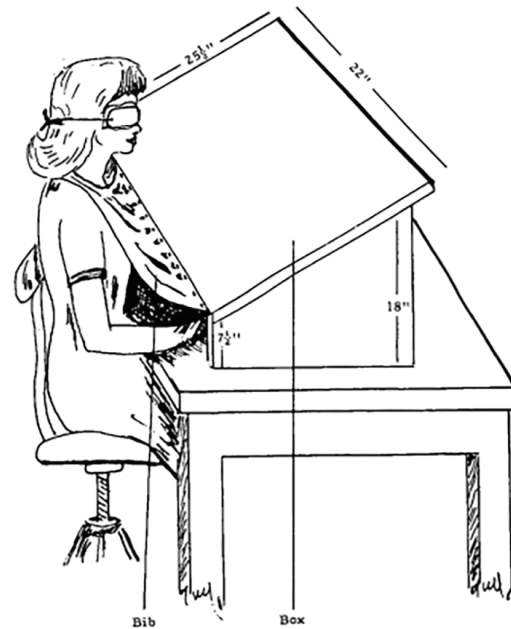
A pivotal reference in the study of direct vision is the 1924 book *Eyeless Sight* by Joules Romain, in which he documents various controlled experiments on human subjects. In some experiments, he used two devices, a Bouclier and Guinol, to control light and direct contact between the participant and the displayed image (Romain, 1924).

A Bouclier designed to control light and direct contact from the subject (Romain, 1924, p. 57).



Even though there are other isolated research references in works spanning the 1930s through 1950s, psychic skills research did not gain prominence until the late 1960s, influenced by the global political climate, when publications about direct vision began to gain visibility again.

In 1966, Dr. L. Chertok from Cochín Hospital wrote about the case of Rosa Koulechova from the Soviet Union, who



Bibscreen box and blindfold combination where S. handled stimulus materials in the box (Zavala et al., 1967, p. 526, adapted from Youtz, 1963).

reportedly could perceive colors through her fingers. He also presented the case of Mile Pigeaire, who, in 1932, responded to a challenge from the French Academy offering a prize to anyone who could demonstrate seeing without using their eyes (Chertok, 1966). Unfortunately, despite her apparent success, Pigeaire's demonstration was disqualified as the jury deemed her blindfold insufficient for scientific proof.

Something similar happened in 1967 when the American Institute for Research published an article outlining a series of investigations conducted by various scientists examining the case of S., an eighteen-year-old girl, who was subjected to

tests where she had to distinguish between colored objects like plastic squares and poker chips to showcase her abilities. The findings favored S's claims (Zavala et al., 1967).

Alongside the popularity of psychic skills research, a skeptical culture emerged, questioning the reliability of such evidence. Many skeptics questioned the adequacy of blindfolding techniques, such as Gardner, who penned an article challenging the effectiveness of the blinding methods in DV experiments, including Romain's studies, the case of S., and others (Gardner, 1966).

Research on Direct Vision has also been published in China. In 1993, Si-Chen Lee began a series of experiments with children 7-13 years old, who, after receiving specific training, were asked to describe a two-digit number written in ink on a folded piece of paper inside a dark, carefully sealed bag. However, Si-Chen Lee's methodology was questioned because there was a possibility that the students could see the number written on the paper despite it being folded. The methodology was also considered unreliable since each co-experimenter worked with more than one student at a time, which left doubts about the supervision of the students' behavior and performance (Shiah, 2005).

Direct Vision Research in Mexico

Anecdotal evidence of direct vision has been found in pre-Hispanic cultures; these abilities have been considered a supernatural manifestation of shamanic powers. Take, for

example, Adita, an utterly blind shaman from Costa Rica who could still "see" or perceive visual elements. It is said that she could read and lived a seemingly normal life despite her blindness (Grinberg-Zylberbaum, 1989).

The first widely recognized method for developing direct vision in Mexico is attributed to José Luis Altamirano and Guillermo Altamirano, who collaborated with Manuel Carballal (Giménez-González, 1993; Carballal, 2017), Jacobo Grinberg-Zylberbaum (Grinberg, 1990, p. 213; Rendón-Ortiz, 2019, p. 118), and Noé Esperón (Esperón, n.d.); though the exact methods are not described in the available literature.

In the early 1980s, Jacobo Grinberg-Zylberbaum conducted numerous experiments on direct vision. He started his work in two Mexican schools, where groups of children learned the techniques to develop this ability. His book, *La Luz Angelmática: El Despertar de la Creatividad y la Visión Extra-ocular (The Awakening of Creativity and Extraocular Vision)*, outlines these detailed techniques in a chronological sequence:

1. *With the child sitting comfortably and their back straight, the following three breathing exercises were performed:*
 - a. *Forced expulsion of air through the nostrils for 60 seconds with the eyes closed, followed by focused attention between the eyes for 20 seconds.*
 - b. *Alternated breathing through both nostrils for 60 seconds with the eyes closed, followed by concentration on their intercilium for 20 seconds.*



- c. *Forced inhalation and exhalation of air in a rhythmical and held way until the limit of each child, followed by the meditation below:*
2. *Maintaining the same posture, the child received the following instructions: “With your eyes closed, focus on the space between your eyes and let your thoughts flow without blocking or controlling them. Once you succeed, focus on yourself and ask yourself, who am I? Feeling yourself, keep your concentration on yourself for as long as you can.” The instructions were communicated in a way that each child could understand. Meditation time varied from child to child, with a minimum of 5 to 6 minutes and a maximum of 10 to 13 minutes, approximately.*
3. *Once the previous point had been reached, the coach sat in front of the child and intertwined their hands with the kid’s, visualizing a line of light that emerged from the palms of the child’s hands and finished in their brain. This visualization continued until the child attained the ability to hold the image of the light line, bright, white, and without interruption.*
4. *Occasionally, the tip of a quartz was held by the trainer in contact with the child’s intercilium or close to it. It was informally discovered that this procedure enhanced the training and accelerated the extra-ocular process.*
5. *Once the above was reached, the phase of extra-ocular detection began. For that, the child was blindfolded using a special bandage completely dull and adjusted to the eyelids, so retinal vision was thoroughly impossible.*
6. *Visual material consisting of high-quality pictures in bright colors and diverse content was offered to the child. The coach placed one or both of the child’s hands over the photograph, making dermal contact with its surface. The child was asked to follow their intuition regarding the dermal exploration of the picture, as well as the exploration of the mental content stimulated by it. The child had to give a detailed description of all their experiences. When requested, verbal feedback about the photograph’s details and correspondence points among the description of the figure and its content was offered. Using natural and spontaneous expressions of awe and approval, the coach reinforced the right choices and corrected the wrong ones.*
7. *The feedback process continued until signs of fatigue or disinterest were observed in the child. In the latter, the training stopped, to be continued on another occasion. The child was encouraged to use any type of movement with their hands, thus exploring different possibilities.*
8. *When the child was capable of describing the figures shown in the pictures without mistakes, they were asked to set their hands aside from the photographs and attempt to visualize the content without touching it. Later on, the child was instructed to make sweeping moves in the space between their body and the picture, quickly contracting their fingers.*

This method accented the details and enhanced focus, as well as limiting the distance in which the child could still distinguish subtle shapes such as printed letters.

9. *Finally, the child was encouraged to cease using their hands entirely and instead “see” the contents directly without the help of movements (Grinberg-Zylberbaum, 2008b, pp. 220-222).*

Grinberg reported that the children developed other psychic skills, such as remote viewing, intracorporeal vision, and telepathy (Grinberg-Zylberbaum, 2008a). He also offered an explanation of extra-ocular vision through his *Synergetic Theory*, in which he proposes that human experience, and reality itself, emerges as the result of the interactions and distortions between the neuronal fields (the fields generated by the interaction between the neurons) and the quantum field (the informational matrix or fundamental structure of space-time, also called “Lattice”). He proposes that the level of synergy (informational organization) is mediated by the level of consolidation of the perception of the self. Since children do not have an advanced consolidation of their self, it is easier for them to experience a state of unity (the level of maximum synergy) and therefore have a greater possibility of transforming the information located in the Lattice in a perceptual experience (Grinberg-Zylberbaum, 1983, 1994).

Usually, after the fourth class, the children learn to activate their DV independently, achieving the necessary mental state by visualizing a board with a green button that, when mentally pressed, activates their ability.

Building upon his work, Noé Esperón created the VEO® method to develop direct vision towards the end of the 1990s. This method consists of ten sessions, each of which incorporates meditations, self-knowledge exercises, and sequenced work with specific cards and images aimed to facilitate the spiritual growth of students. His website claims that the activation of VEO® can be achieved in 100% of children 6-12 years old (Esperón, n.d.).

Since then, there has been little to no research on the topic in Mexico. It is worth noting that in 2015, the Unit of Parapsychological Research, Investigation, Dissemination and Education (Unidad Parapsicológica de Investigación,



Part of the UPIDE research team. From left to right; top: Carlos-Iván López-Miranda, Ramsés D'León, Javier Martínez, Gaia-Velvella Barbakow. Bottom: Eros Quintero, Adriana Beristain, Rodrigo Arriola, Nili Bar & Stephany Luna

Difusión y Enseñanza - UPIDE) was formed reinitiating psi research in the country with several replications of negentropic field studies previously conducted by the Institute of Noetic Sciences (Radin et al., 2017), and later using physiological anticipation protocols employed with cost-effective equipment (D'León & Izara, 2018). Most of these studies were done for exploratory purposes and have not been published.

Moreover, in 2020, UPIDE was integrated as the research unit for the Center for the Investigation of Synergy and Consciousness (Centro de Investigación de la Sintergia y la Consciencia - CISC). Since then, UPIDE has replicated protocols related to the work of Jacobo Grinberg-Zylberbaum, putting his theories to the test. Our team comprises biologists, electrical engineers, psychologists, teachers, anthropologists, physicists, electroencephalographers, and ophthalmologists. We are developing interdisciplinary methods to explore the potential significance and impact of DV on children's quality of life.

Children participating in our research are trained using a DV method developed by Nili Bar, which eschews a rigid program. Each class is adapted to the interests and progress of the children and the general environment of the group. Therefore, we use a very basic guideline of activities that are adapted for each session. This method uses meditation as a basis to promote a favorable environment

for both individual and collective work. During the first classes, a group meditation is carried out to induce the students into a state conducive to starting the DV exercises. The procedure is repeated for three or four sessions, each time using a new meditation shorter than the previous session and changing the images that are shown to the children. More complex exercises are also incorporated, such as reading first a letter, then a word and finally an entire paragraph.

The progression of the exercises is adapted to the level to which each child advances. Usually, after the fourth class, the children learn to activate their DV independently, achieving the necessary mental state by visualizing a board with a green button that, when mentally pressed, activates their ability. This is in order to teach them to work autonomously when they are out of the course, that way they can continue practicing always.

The first minutes of every class are used to corroborate the presence of DV by describing cards and simple images, and then we begin to work with each child according to their level; some read, others put together puzzles, and some play a board game. All this using blindfolds. Once all the children have demonstrated that their DV is active, we proceed to group exercises such as board games or rounds where each child shows a card to another, and the child has

to describe it. We have observed that in most cases, a child may see a card hidden from the rest of the group while the other students describe it in detail.

After the fourth or fifth class they should be ready to carry out group dynamics of physical games that require the child to be able to see their surroundings in a way very similar to retinal vision. In most cases, it is informally observed that they also appear to move things with their minds and communicate telepathically. However, after the appearance of DV in children, the activities become spontaneous and mostly collective. That is why we choose a combination of quantitative and qualitative tests to allow them to experience a relaxed and enjoyable atmosphere during the activities.

Currently, meditation is acknowledged as a method to enhance focus and manage impulses, so it is not unusual to see meditation workshops in schools. However, these often do not include teaching strategies that align with classroom content or consider the developmental needs of children aged six to eleven.

Although our work is exploratory, we have three clear research objectives:

1. Exploring potential alternative ways of perception beyond the retinal.



DV trainees playing Twister®, enabling a harmonic social dynamic and showing an apparent collective and coordinate flow

2. Analyzing the relationship between brain activity and the occurrence of DV.
3. Improving the lives of students experiencing DV.

For instance, in June 2023, we prepared a group of nine children, aged seven to eleven, who received six sessions of DV training. During the sessions, the children were engaged in meditation, observing colors and shapes, reading, and playful activities such as solving puzzles, coloring mandalas, board games, and movement activities, among others. All these activities were conducted while they were blindfolded.

Afterward, we had the children complete a series of tasks incorporating various control methods. Some were adapted or inspired by previous studies, while others were quite novel. Here we share some of the novel methods and insights gained during this ongoing research program.

Control Methods

Blindfold



The foam-based blindfold used by UPIDE

UPIDE conducts its experiments using a nose-peek-proof blindfold. The blindfold features an elastic band with velcro around the head for a secure fit and is covered with a black plastic sheet. Between the plastic sheet and the subject's eyes is a 2 cm thick layer of black foam rubber, shaped anatomically to adapt to the subject's face, and two holes for the eyes, making it impossible to peek by turning one's eyes downward. The foam rubber successfully blocks the apertures formed on each side of the nose, present while using other types of blindfolds, and hinders the passage of light.

Researchers such as Gardner (1966) have suggested that a "sniff" posture can allow vision even while blindfolded. Nevertheless, this trick is useless with this type of blindfold since there is no hole where one can see through.

Pupil Dilatation

In some cases, the UPIDE team may broaden its controls by inviting a retina specialist to administer pupil dilation (tetracaine as anesthesia, and tropicamide and phenylephrine for dilation), allowing researchers to introduce a clinical condition that impairs reading ability, particularly for fine print.

The DV Box

Seeking a way to extend the blindfold's efficacy in blocking retinal vision, we introduced an additional control between the child's face and the experimental target. UPIDE has created a box from non-reflective material, akin to Romain's Bouclier, allowing us to display images on an internal electronic device, such that only the child's hands could interact with the projected pictures of color and number cards.

UPIDE's DV Box uses white acrylic, which allows light to pass through but obstructs the view of the images inside. Its volume is 22 cm³ and has two holes of approximately 10 cm in diameter on each side covered with foam, allowing the user to place their hands in the box, but preventing them from seeing the inside. A phone displaying experimental targets is placed in a case fixed to the interior with velcro, so that it doesn't easily move with the user's touch.

Cameras

UPIDE monitors all of its sessions with four HD cameras strategically positioned around the experimental area, 1.5 m (4.92 ft) away from the experimental setup, with an additional camera on the ceiling. Monitors are set up in a separate room, allowing parents to interact with staff and watch their children's performance.

Materials

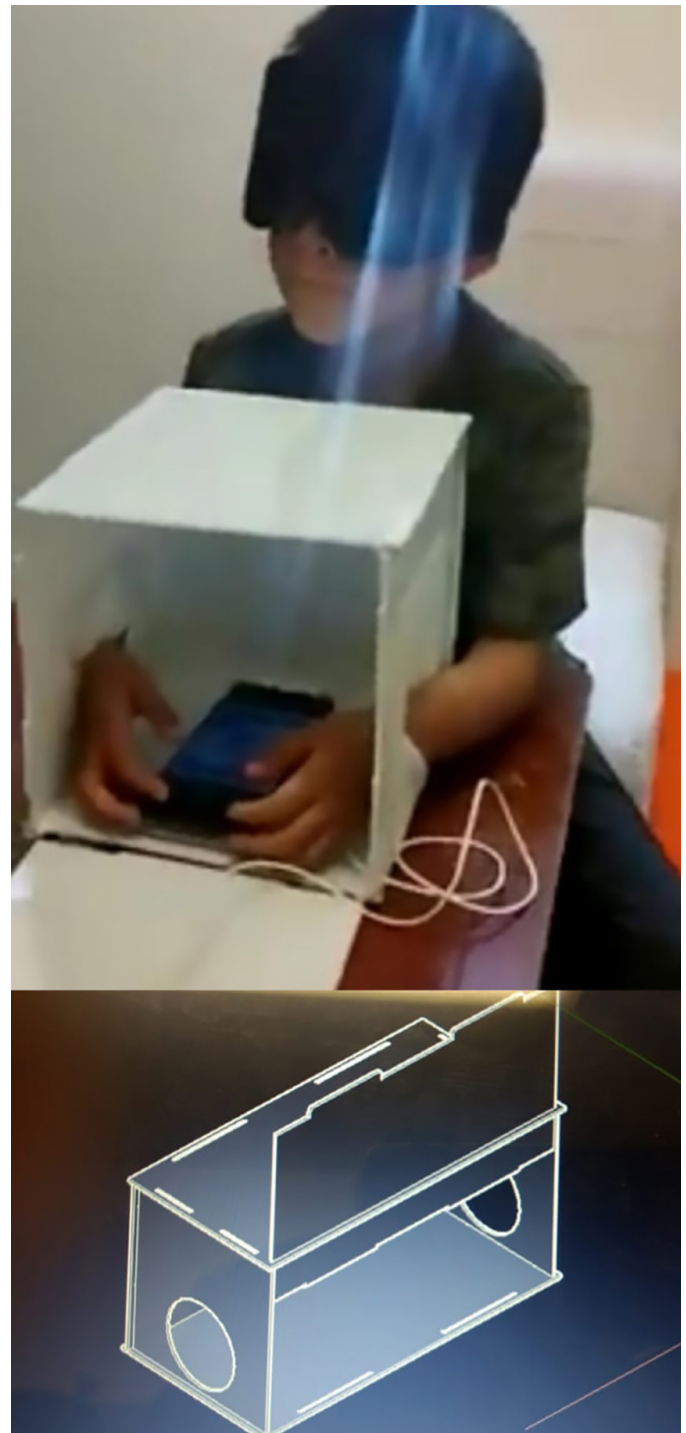
UPIDE's DV Apps

The team has developed two custom-made applications using Kotlin, designed for Android 8.0 (API 26) or higher devices. These apps use the `kotlin.random.random` class, which provides the default generator of pseudo-random values for Kotlin, to choose a random flashcard (totaling 17 images, encompassing animals, objects, or clothes) or an UNO card (comprising 52 images, with all numbers, skip, reverse, and draw two included).

A card is selected at random when either the a) volume up button, b) volume down button, or c) play/pause button (with wired headphones only) is pressed. Both applications also feature a logging function that records the name of the image and the time it was selected, saving it to internal storage. These applications are available for free on Android and can be downloaded using the following links: UPIDE DV Flashcard App (<https://tinyurl.com/3ar45b54>) & UPIDE DV UNO App (<https://tinyurl.com/5hbhzuzp>).

The Child Assessment Battery

Upon observing improvements in children's lives through the course of teaching DV, our team decided to incorporate the Child Assessment Battery (*Batería de Evaluación Infantil - BEI*), a set of three scales adequate for children within our



The DV box, made of white acrylic, lets light in but obstructs the view of the images inside

age range. It evaluates stress levels, coping, and how children internalize and externalize their problems. The scales are administered before and after the course to observe the changes shown in these specific areas.

Experimental Tasks

UPIDE's Direct Vision research program involves several activities to keep experimental sessions fun and playful for the children.

The DV Box Task

In this task, participants are asked, while blindfolded, to reach into box openings and touch a phone screen displaying three numbered and colored images of cards for each child. After touching the screen, the kids are asked to describe the number and color they are "seeing". Preliminary observations suggest that most children could correctly identify at least one card's color. Some could even confidently identify both the right number and color.

UNO Game Task

In this task, two blindfolded students and an unblindfolded UPIDE researcher play UNO, a card game featuring cards in four different colors, each with a number, along with some special action cards like "draw two" and "skip". The goal is to place cards in the pile, taking turns. Every card must match the color or number of the card placed by the previous player until one of the players runs out of cards. If a player has no card that matches the one in the pile, the player must draw additional cards until they find one that can be used.

As a control, an UPIDE researcher stands behind each player to observe whether they could play a card or not in each round. Approximately six rounds are played with different players each time. We observe that in approximately four of six rounds, the game may occur without impediments and with a fluency similar to when the game is played without blindfolds. So, most of the children could choose a card from their hand that matched the one in the pile.

Matching Cards Task

This task uses two sets of scholastic flash cards. Five cards are placed on a table and their pairs are given to each child in a random order. Children are asked to place each card over its pair on the table while blindfolded.

The goal is for the blindfolded children to match identical images. This simpler task helps reduce stress and provides a brief rest between more controlled-focused tests while keeping the children in the right mental state for subsequent exercises. We have observed that over half of the child participants are able to correctly match all the cards.

Exploratory Tasks with Brain Monitoring

UPIDE has further monitored brain activity in some of its blindfolded participants using a 32-channel medical-grade EEG, allowing a look at what is happening in the brain during activities such as coloring, completing puzzles, or describing photographs.



Subject I coloring a mandala while connected to the EEG and blindfolded without apparent auditory or sensory cues

Results will be discussed in upcoming publications, but we observed **Subject G**, successfully describe the general characteristics of two images presented in front of her: a picture of the *Chichen Itzá* pyramid and that of an active volcano. She was sensorially-aided only by tactile exploration of the smooth image surface and accurately identified the pyramid as a large, white, man-made structure. She also accurately described the volcano image, sensing qualities like radiating heat.

Here is how Subject G describes the experience:

I have been practicing DV for a few months now. Despite not being as skillful as other subjects, we noted the presence of the ability within me. So, we decided that I would take part in the electroencephalogram test as well. The procedure was: they put the electrodes on me, I meditated to activate my DV, and then they put some images in front of me.

Since the electrodes were placed, I had a physical sensation in my head. It felt close to what I feel while meditating. When I meditated, I had some trouble perceiving certain sensorial instructions. What should have been sensed during the DV activation process seemed to be blending with the sensation I currently had.



Left: Subject G doing VD while connected to the EEG and blindfolded / Right: Images of Chichen Itzá and the volcano

I was surprised that I could see clearer than I used to while training. When they showed me the pyramid of Chichén Itzá, I saw a house that looked like the pyramid's summit.

Some children say they see a hole in their blindfolds. I understood this during the experiments. When they showed me a volcano, everything seemed black but a little square, like a window, I could see a fragment of the photograph throughout it, but I could not describe it correctly at the time. After taking my blindfold off, I looked at it, and I was positive that I saw a part of the image. It was surprising as, until that point, I had only been able to perceive colors, shapes, and some objects.

I am unsure what caused the sensations I experienced when the electrodes were placed, or if there is any correlation between the electroencephalogram and improved performance. I do believe there might be a correlation, although I also consider the possibility that I may have subconsciously convinced myself that the electroencephalogram would have an effect.



Course participant solving a puzzle while blindfolded

A more thorough analysis of the team's observations will be shared in future peer-reviewed publications.

Impacts on Quality of Life

In the course of developing this research program, UPIDE noticed changes in the behavior of the participants. First,

we saw a radical physical change in some children. It was common to notice that after the second or third session, they got a haircut, their clothing style was different, or even their posture, body language, and expressions changed.

We inquired if the parents had observed any behavioral changes in their children since the beginning of the study, and they unanimously noted increased confidence. Many reported improved behaviors, and some mentioned the elimination of bad habits like nail-biting or issues with sleep.

Upon concluding the course, children as asked to share what they valued most. Few mention their development of DV. Rather, their highlights focused on their academic improvements, wholesomeness, and even the perceived diminishing of violence from some classmates who used to bully them.

Throughout various project and testing phases, the palpable enthusiasm and cooperative spirit from children, parents, and researchers alike suggest that our methodologies are apt and highly motivating for everyone involved.

Of utmost importance is the perception of the children and their parents. At the conclusion of the course, the father of O. and K. shared: *O. and K. have experienced overwhelmingly positive changes, exhibiting a newfound growth, akin to an awakening or heightened awareness as inherent co-creators of reality. They exhibit increased resilience, ease, and focus; their intelligence seems more adaptively flexible, displaying a heightened curiosity – I find myself learning so much from them. It makes it easier for them to pick up books and express themselves. They share a lot of appreciation for life. I have noticed they are more grateful.*

In another report, following the initial session, T's mother noted: *In these eight days, Tauno has been more expressive in school; he has been allowed to play more and express his joy with all his body and voice. He referred to starting to learn how to better perceive his DV. The example he used was: It's like being able to see into a bottle, not just gazing at it from the outside, but truly understanding it from the inside.*

Although it is still too early to draw conclusions about the physiological or psychophysiological mechanisms of DV, our current research program advances the consideration of psychic abilities as an important phenomenon that deserves serious scientific study.

It is not our intention to enter into the old debate that aims to prove or deny the existence of psychic abilities. Rather, we aim to gather evidence that generates curiosity and interest, opening a path towards understanding human potential from a perspective that has prevailed in various cultures, but is not yet fully acknowledged by modern academia.

The acknowledgment of these skills may cultivate meaningful experiences, enriching our, and our children's, quality of life. We hope that this ongoing research program will

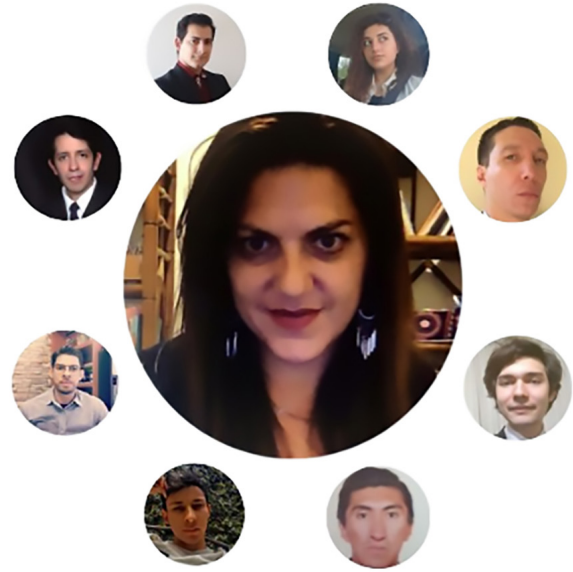
contribute to the understanding of our own being beyond reductionist models.

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Note: Feature image generated using the prompt "A panoramic illustration that captures children engaged in 'Direct Vision,' focusing mentally on a plant. Four children of diverse backgrounds are seated on the floor around a wooden table in a room with natural light. They are wearing sleek black eye masks with velcro fastening covering their eyes. Their hands are out of sight, possibly in their laps or behind their backs. A verdant potted plant with various green leaves and delicate flowers is at the center of the table. From each child's head, imaginative and abstract botanical patterns emerge, floating upwards, illustrating their mental visualization of the plant's details. These patterns are dynamic and appear as a natural extension of their thoughts rather than being static images on a wall. The room has a calm and welcoming atmosphere, with elements that enhance the imaginative and serene setting." by OpenAI, DALL-E, 2023 (<https://labs.openai.com>).

NILI BAR (Mexico City, 1973) has a master's degree in Educational Sciences. She began her studies regarding Direct Vision in 2020, and eventually created her own method to develop this skill. She joined the UPIDE team in 2022, and with their collaboration, she conducted this research. UPIDE is the CISC' subsidiary dedicated to scientific, methodical, and experimental research into consciousness and psi; particularly phenomena related to extrasensory perception, psychokinesis, and the survival hypothesis.



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Robert Davis

Kundalini Awakening: An Emergent Phenomenon

Kundalini Awakening (KA) is an energetic transformative experience recognized in various traditions, especially among Eastern meditative, Hindu tantra, and Yogic practices. Traditional literature conveys “Kundalini” (i.e., Sanskrit for “coiled up”) as a broader phenomenon encompassing a large variety of spiritual experiences and nondual meditation states. Despite variations in Kundalini concepts across traditional scriptures, a common feature is the ascent of Kundalini through a central energy channel in the spine, activating the chakras (i.e., Sanskrit for energy centers) to purify and balance them (Sivananda, 1994). This process has been reported to lead to deeper self-understanding, spiritual awakening, and expanded consciousness by those who have experienced a KA (James, 1916; Stace, 1960; Lukoff, 2009; Taylor & Egeto-Szabo, 2017).

Kundalini awakening can manifest spontaneously or be induced via a process referred to as shaktipat-diksha, or the

“descent of power,” and entails the transmission of “infinite Consciousness” from an enlightened master to the individual (Wallis, 2017). The guru’s guidance and specific yoga practices (such as meditation, mantra repetition, breathing, postures, and chanting) are believed to be potentiated by the awakened Kundalini, assisting in the process of purification. The awakening of Kundalini energy can also be triggered by intense emotional stimuli, like devotion, love, shock, childbirth, psychedelics, or abuse. (Taylor, 2015; Grof & Grof, 2017; Woollacott et al., 2021). The journey is deemed complete when the individual consistently experiences elevated knowledge and indescribable joy, with the Kundalini energy stabilized in the “crown center of Universal Consciousness.” This signifies the attainment of the highest spiritual awakening in the Kundalini tradition, referred to as the state of samadhi or enlightenment, the experience of intimacy with all things and absorption into the state of absolute nonduality (Woollacott et al., 2020).



Kundalini Awakening: Signs, Symptoms, and Consciousness

The complex energetic phenomenon of KA has gained increased attention in recent times, owing to its capacity to trigger significant alterations in perception and consciousness. This interest has fostered a multicultural perspective aimed at comprehending spiritual experiences and their transformative impacts, which culminated in the inclusion of the Religious or Spiritual Problem diagnostic category in the 5th edition of the Diagnostic and Statistical Manual (DSM). That is, clinicians are now encouraged to consider the patient’s cultural factors, religious beliefs, and practices, as well as their “spirituality,” as “essential components of psychiatric history taking” (American Psychiatric Association, 2013).

Psychologist David Lukoff, a specialist in “spiritual emergency” who co-authored this DSM category defined mystical experiences like a KA this way: “The mystical experience is a transient, extraordinary experience marked by feelings of being in unity, harmonious relationship to the divine and everything in existence, as well as euphoric feelings, noesis, loss of ego functioning, alterations in time and space perception, and the sense of lacking control over the event” (Lukoff, 2009).

More specifically, several diverse experiences can accompany KA, each presenting unique characteristics and effects that may include:

- **Pranic Movements** (Kriyas): These are involuntary bodily movements like shaking, vibrating, and contracting, which occur as energy flows through the body.

- **Yoga Phenomena:** Spontaneous enactment of yogic postures or hand gestures, even without prior knowledge or ability to perform them in a normal state. Unusual breathing patterns, rapid or slow and shallow, might also arise (Lukoff et al., 1995).

“The mystical experience is a transient, extraordinary experience marked by feelings of being in unity, harmonious relationship to the divine and everything in existence, as well as euphoric feelings, noesis, loss of ego functioning, alterations in time and space perception, and the sense of lacking control over the event”



- **Physiological Symptoms:** Uncommon physiological responses, including heart, spinal, gastrointestinal, or neurological disturbances. This could encompass sensations of burning, heightened sensory sensitivity, excessive activity or lethargy, and fluctuations in sexual desire (Lukoff et al., 1995).
- **Psychological Symptoms:** Emotional fluctuations encompassing anxiety, guilt, depression, as well as compassion, love, and joy (Taylor & Egeto-Szabo, 2017).
- **Extrasensory Experiences:** Elevated sensitivity to both internal and external stimuli, potentially leading to experiences that seem paranormal. These could involve synchronicities, visions with archetypal or symbolic significance, telepathic occurrences, perceiving spiritual presences, auditory perceptions of sounds or voices not originating externally, and visualizing entities not materially present (Greyson, 2000; Lindahl et al., 2017; Taylor, 2015; Grof, 2017).
- **Mystical States of Consciousness:** Transitions into altered states where individuals directly perceive the inherent unity in the world. These states entail profound peace, serenity, unconditional love, and a sensation of transcending temporal and spatial boundaries (James, 1902; Stace, 1960; Lukoff et al., 1995; Griffiths et al., 2019; Yaden & Newberg, 2017).

Indeed, KA is linked to a diverse array of mystical, psychological, physiological, and transformative encounters. However, the journey is intensely personal, leading to a spectrum of effects among individuals. This was evidenced in an investigation of spontaneous sensory, motor, and emotional occurrences during meditation among 80 meditators from a singular Tantric Yoga tradition who underwent a Kundalini-related experience (Maxwell & Katyal, 2022). Among the array of reported experiences, it's worth noting that the highest prevalence was observed in positive mood shifts (69% of participants). This rate surpassed the 32% reported for "mood and energy swing" in a "kundalini awakening" group (Woollacott et al., 2021), and the 46% for "positive affective states" among individuals reporting "awakening experiences" (Taylor & Egeto-Szabo, 2017). Additionally, the subjects reported comparable occurrences of motor experiences (29-41% of all participants, with 61% experiencing at least one type) when compared to other studies, such as 66% for bodily "manifestations" (Poloma & Hoelter, 1998), 37% for involuntary movements (Lindahl et al., 2017), and 48% for "rushes shaking the body" (Woollacott et al., 2021). Many participants also recounted spontaneous experiences

with unusual attributes, such as out-of-body experiences, "visions," "abnormal environmental illumination," and hearing spiritual voices or music. These encounters present a challenge when attempting to reconcile them with models of kundalini linked solely to sensory characteristics.

The correlation observed in recent research between KA and consciousness aligns with the philosophical perspectives of Walter Stace and the psychological insights of William James regarding mystical experiences (James, 1902; Stace, 1960). A fundamental facet of this concept involves the disappearance of the physical and mental attributes of ordinary consciousness, giving way to an "undifferentiated pure consciousness." This state is characterized by several attributes: 1) transcendence of space and time, 2) objectivity and reality, 3) a sense of peace, bliss, and joy, 4) encounters with the holy or divine, and 5) the inexpressibility of the experience (James, 1902; Stace, 1960).

Building upon this initial process, a framework proposes the emergence of two distinct stages: firstly, the dualistic mystical state, which combines heightened self-awareness with an awareness of thoughts and objects; and secondly, the unitive mystical state, where awareness blends with objects (Foreman, 1998b). More specifically, the relationship between KA and consciousness underscores the capacity for spiritual development, self-realization, and an extended awareness frequently linked to this phenomenon, as follows:

Energetic Transformation: Energetic movement is believed to create a more integrated flow of energy throughout the body and mind. As a result, individuals may experience heightened awareness and a deeper connection to their inner selves (James, 1902; Lukoff et al., 1995; Sivananda, 1994)

Activation of Higher Centers: The awakening of Kundalini is said to activate the crown chakra, which is believed to be associated with spiritual consciousness, a sense of transcendence and interconnectedness, and insights into the nature of reality (James, 1902; Stace, 1960; Sivananda, 1994).

Expanded States of Consciousness: During KA, individuals may enter altered states of consciousness, which can include feelings of unity, euphoria, deep peace, and a sense of timelessness. Some report experiencing mystical and transcendent states of consciousness; a dissociative-type of conscious awareness of leaving the body, and/or of being aware that you are not your body (Stace, 1960; Taylor, 2017; Kason, 1994; Grof & Grof, 2017; Woollacott et al., 2020).

Spiritual Evolution: A KA is often viewed as a step in the spiritual evolution of an individual, a transformative journey that leads to states of enlightenment (samadhi), where they directly experience the absolute, nondual nature of consciousness. (Taylor, 2017; Grof & Grof, 2017; Woollacott et al., 2020).

The relationship between KA and consciousness, along with the corresponding notions of a mystical experience put forth by James (1902) and Stace (1960), was validated in a study that examined firsthand testimonials from 40 scientists and scholars who underwent spiritually transformative encounters (Tressoldi & Woollacott, 2023). Substantial shifts in self-perception and the understanding of reality were documented as follows: 1) A dissolution of personal self-boundaries was reported by 85% of participants, and 62.5% of them described a feeling of “boundless oneness,” frequently characterized by pure, unconditional love, bliss, and luminosity, 2) 60% of individuals perceived reality as unified, indicating a sense of interconnectedness, 3) Some participants characterized the experience as replete with energy, intelligence, and transcendence of time, and 4) All individuals regarded their encounters as authentically real.

Given the deeply personal nature of KA, the outcomes can vary significantly. Some individuals might undergo profound transformative experiences, while others could experience more subtle shifts in consciousness. Particularly intense shifts in conscious awareness, which exhibit certain commonalities with individuals who report near-death experiences (Greyson, 2000; Taylor, 2015; Kason, 1994; Davis, 2019), frequently result in enduring and lasting alterations to an individual’s perception of self and the surrounding world (Taylor & Egeto-Szabo, 2017). For these reasons, it is not surprising that a KA may lead to radical changes in religious and philosophical views, relationships, and career paths.

Transformative Outcomes

Drawing from the limited preliminary investigations involving individuals reporting KA experiences, it is commonly depicted as a predominantly positive occurrence that facilitates profound and enduring shifts in their personal and philosophical convictions (McClintock et al., 2016; Taylor & Egeto-Szabo, 2017; McGee, 2020). These transformations encompass a range of affirmative attributes and alterations, including a heightened sense of purpose and meaning in life; connectivity with family, friends, and the natural world; disposition to serve others; the engagement in spiritual pursuits; a divergence from materialistic lifestyles; and belief in immortality, among others (Edwards & Woollacott, 2022; Woollacott et al., 2020; Taylor & Egeto-Szabo, 2017; McGee, 2020; Khalsa et al., 2008; Khanna & Greeson, 2013; Lifshitz et al., 2019). These shifts are accompanied by emotional transformations, encompassing a broader encounter with love (transitioning from ego-centric to unconditional love), heightened self-acceptance, increased positive emotions, and a reduction in the intensity of fears and anxieties. Such profound transformation holds the potential to impact careers in various ways, ranging from assimilating fresh viewpoints into current trajectories to embarking on

entirely novel paths centered around consciousness or aiding others from this evolved vantage point (McGee, 2020; Edwards & Woollacott, 2022; Tressoldi & Woollacott, 2023).

Indeed, not all individuals engaging in practices like meditation or yoga experience an intense, energetic KA. If it does occur, the effectiveness and quality of the transformational process can vary greatly based on the individual’s personality, emotional state, and life circumstances. Moreover, independent studies have verified that a majority of their participants reported psychological turmoil or trauma as a significant factor that they believed led them to have the experience (Greyson, 2000; Taylor, et al., 2015; Kason, 1994; Woollacott et al., 2020). This consistent finding further supports the potential for these experiences to yield deep, transformational shifts that can result in long-lasting therapeutic change. In one study, for example, evidence of positive transformational after-effects on well-being was examined in 152 participants who reported having a KA (Corneille & Luke, 2021). The overwhelming majority (90%) reported the experience to have had a predominantly positive impact on their well-being in the short term, and an even higher percentage (98%) reported long-term positive effects. The participants described the entire energetic awakening experience as mystical, which included feelings of expansion, conscious awareness leaving the body, and a sense of being enveloped in light or love. Several key triggers for these experiences included focusing on spiritual matters, being in the presence of a spiritually developed person, and engaging in intense meditation or prayer (Corneille & Luke, 2021).

Collectively, these results not only support the opinion that a spiritual or KA experience facilitates overall positive short and long-term effects on well-being but also shifts one’s intention towards developing more positive ways of living. It should be emphasized, however, that the biological mechanisms facilitating such rapid transformations, enabling the sudden shift of an extensive network of neural connections and thereby changing an individual’s entire perspective and approach to life, remain poorly understood.

While initially blissful, a profound KA can result in significant harm, both mentally (anxiety, memory issues, and mood swings, etc.) and physically (sleep problems, gastrointestinal issues, and changes in sexual desire, etc.), resulting in spiritual emergency (SE).

Kundalini Awakening: Spiritual Emergency and Psychopathology

Distinguishing between KA and psychosis is essential due to the wide spectrum of non-ordinary consciousness states. While spiritual experiences and KA are no longer considered psychopathological, diagnosing them accurately remains challenging. This difficulty arises from the overlap with psychopathology and the lack of clinicians well-versed in spirituality who are biased toward interpreting intense transformative experiences as mental health problems (Johnson & Friedman, 2008; Menezes & Moreira-Almeida, 2010). Thus, the diagnosis of spiritual experiences and KA in the Religious or Spiritual Problem diagnostic category in the DSM (American Psychiatric Association, 2013) can be tenuous in many cases due to our continued limited understanding about these experiences both within the medical communities and general public.

While initially blissful, a profound KA can result in significant harm, both mentally (anxiety, memory issues, and mood swings, etc.) and physically (sleep problems, gastrointestinal issues, and changes in sexual desire, etc.), resulting in spiritual emergency (SE). Psychologist Stanislav Grof introduced the term “spiritual emergency”, denoting both crisis and potential heightened awareness or spiritual emergence. According to Grof, “If we use the observations from the study of non-ordinary states, and also from other spiritual traditions, they should really be treated as crises of transformation. If properly understood and supported, they are actually conducive to healing and transformation” (Grof & Grof, 2017).

Unfortunately, there is a lack of comprehensive research on the phenomenology and energetic effects of spiritually transformative experiences like KA, which contributes to limited support from the psychological and medical community for those who are experiencing an SE. Moreover, the clinician’s lack of understanding spiritual experiences like KA, and the significant distinctions between SE and psychosis, are especially problematic for patients experiencing both: 1) psychotic states with mystical features (possibly psychopathological), and 2) non-pathological SE related to a SE or KA (Lukoff, 1985). Improper treatment could harm either group, and may trigger negative symptoms in positively perceived awakening experiences, or intensify the negative symptoms of SE (Johnson & Friedman, 2008; Grof & Grof, 2017). Cofounder of a Kundalini Clinic, Psychiatrist Lee Sannella, emphasized this concern by stating: “There are many undergoing this process who at times feel quite insane. We must reach such people, their families, and society, with information to help them recognize their condition is a blessing, not a curse” (Sannella, 1992).

The distinction between SE and psychosis becomes more evident by examining the relationship between KA

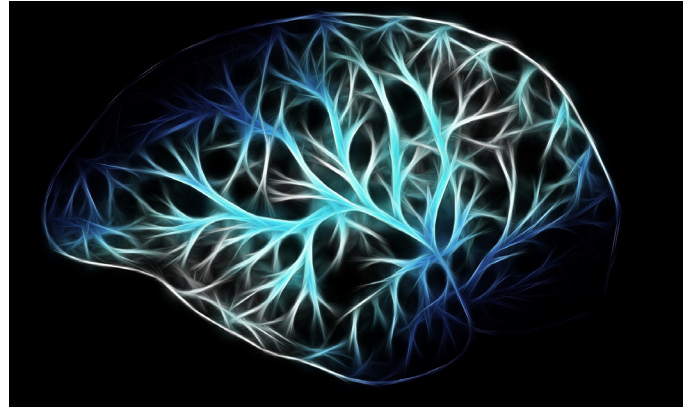


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and consciousness, and the associated positive transformational after-effects on well-being, mentioned prior. Those who exhibit such attributes tend to manifest objectivity and a willingness to share their experiences. Conversely, those inclining towards psychosis often exhibit secretive conduct, an obsession with ambiguous subjective elements, and challenges in conveying their experiences to others (Storm & Goretzki, 2021; Bronn & McIlwain, 2015; McClintock et al., 2016).

Neural Correlates

While the most fundamental questions about mystical experiences may remain beyond the scope of a purely reductive explanation, researchers have attempted to uncover potential biological correlates that could point toward possible underlying mechanisms. In an attempt to find a brain circuit for spirituality, for instance, changes in activity, connectivity, and neural oscillatory processes within the default mode network (DMN) highlight the intricate interplay between brain function and profound states of consciousness. The DMN is a network of brain regions that is active when an individual is not focused on the outside world (e.g., states of mind-wandering, daydreaming, or self-referential thinking) and the brain is at wakeful rest.

It has been proposed that stilling brain activity within the DMN leads to reduced filtering mechanisms and ego-centered processing, allowing for novel interactions in other brain areas that could facilitate what’s often described as “self-transcendence” or a sense of unity with a larger, interconnected whole (Barrett & Griffiths, 2018; Woollacott & Shumway-Cook, 2020). More specifically, reduced neural activity within the areas of the brain that play a role in aspects of self-identity and spatial perception, could be connected to the transcendence of the individual that often accompanies introvertive mystical experiences (Barrett & Griffiths, 2017; Davis, 2019).

Interestingly, cortical areas within the DMN have been associated with some aspect of internal thought which may be related with “self-transcendence,” that mediate profound states of consciousness. For example, 1) The medial temporal

lobe is associated with memory; 2) The medial prefrontal cortex has been associated with theory of mind, and the ability to recognize others as having thoughts and feelings similar to one's own; and 3) The posterior cingulate is thought to involve integrating different kinds of internal thoughts (Raichle, 2015).

Another theory is that the brain features a “God spot,” or one distinct region responsible for many aspects of spiritual experiences. The deep subjective essence of intense oneness and enhanced self-transcendence, for instance, has been reported to occur when the activity is reduced from a space-occupying tumor in the inferior parietal lobe (IPL) of the brain – an area vital for sensory perception and integration (Newberg, 2018). According to several neuroscientists (Newberg, 2018; Persinger, 2001), this perceptual distortion occurs when one is no longer able to differentiate between their inner self and external reality, and the sense of self-transcendence. Interestingly, only patients who had tumors removed from their IPL showed a greater tendency towards religious and spiritual beliefs and experiences (Newberg, 2017).

In another study, researchers used lesion network mapping to map complex human behaviors to specific brain circuits based on the locations of brain lesions in 88 patients (Ferguson et al., 2021). Of the 88 patients who had neurosurgical resection to remove a brain tumor, 30 showed a decrease in self-reported spiritual belief, 29 showed an increase, and 29 showed no change. The researchers discovered a connection between self-reported spirituality and a brainstem region called the periaqueductal gray; an area linked to various functions such as fear, pain modulation, altruism, and unconditional love. Lesions affecting nodes within this area either decreased or increased self-reported spiritual beliefs. It's worth noting that these broader neurological-perceptual associations were substantiated through a cross-sectional online survey involving more than a thousand meditators. This survey revealed that a range of reported experiences, including mystical/transcendent, social/relational, physical/perceptual, spatial/temporal experiences, and extended human capacities, are both widespread and significant among those who undergo them (Vieta et al., 2018).

The convergence of these findings opens avenues for exploring the human experience, and the interplay between brain function, cognitive processes, and profound states of consciousness from a neuroscientific standpoint. If the brain is indeed hardwired for spiritual experiences, the next question is whether a KA is a normal part of the physical evolutionary experience, or an innate physiological coping mechanism to manage times of crisis to help maintain the survival of humanity (Davis, 2019).

Conclusions

The field of research into the physical and mental health aspects of spiritual phenomena, particularly in the context of KA and associated experiences, is still in its early stages. It is critical, however, that by addressing the interrelationship of biological, psychological, social, and spiritual aspects, a more holistic understanding of human experiences related to KA will emerge within a Science of the Subjective; a new science that incorporates current scientific principles with the subjective experience and intuition (Jahn & Dunne, 1997).

The integration of consciousness and the physical universe within a comprehensive scientific framework represents a paradigm shift that recognizes consciousness as a dynamic force that shapes reality, extending beyond brain biochemistry. This model would encompass both objective and subjective experiences to define and elucidate consciousness, a fundamental element of the human individual - be it energy, spirit, or another facet - ultimately redefining prevailing notions in both science and spirituality.

Spiritual experiences, such as the concept of a KA, have demonstrated predominantly positive transformations in one's personal and philosophical values and beliefs. Initially, focusing on altering attitudes, beginning with the acceptance of individuals undergoing KA experiences, holds promise for us all by contributing to a more compassionate and values-driven society.

The vision is for those who have spiritual experiences to serve as models for others engaged in their own spiritual quests, and sharing these experiences may inspire and guide others on their journeys of self-discovery and spiritual exploration, benefitting not only those directly involved, but also, humanity at-large – an evolving paradigm shift.

ROBERT DAVIS, Ph.D. served as a professor for the State University of New York for over thirty years, where he conducted research in the behavioral and neurosensory sciences. He has authored or co-authored more than 30 presentations and 60 papers, which included invited lectures at Harvard, Cambridge, and Peking University. Davis was also awarded numerous grants to support research. He has published three books: 1) *The UFO Phenomenon: Should I Believe?* 2) *Life after Death: An Analysis of the Evidence*, and 3) *Unseen Forces: The Integration of Science, Reality and You*. He has also decided to turn his book, *Unseen Forces*, into a documentary called *The Consciousness Connection* with Emmy Award winner Dave Beaty of Dreamtime Entertainment and Wilson Hawthorne of Eyeland Telemedia, Inc.



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Note: Feature image prompt generated by MidJ Prompt Generator, “Visualize a serene, contemplative figure seated in a natural setting, symbolizing the beginning of the Kundalini Awakening journey and a coiled serpent. This figure is surrounded by an aura of gentle light, representing the initial stirrings of Kundalini energy at the base of the spine. Above them, the scene transitions into an abstract representation of the central energy channel, with symbolic motifs for each chakra illuminated along the spine, leading up to the crown. The background merges elements of traditional Eastern landscapes with modern, multicultural urban settings, reflecting the journey’s universal and transcultural relevance. The imagery should evoke a sense of peaceful anticipation, capturing the moment just before the ascent of energy begins, merging scientific symbols of neural pathways with spiritual symbols of enlightenment.” Image generated by Midjourney, 2024 (<https://discord.com/invite/midjourney>).



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