What Is Authentic Personal Identity? A Philosopher Asks Neuroscientists

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Abstract

Personal identity is arguably the most critical aspect of human existence. A failure to understand who we are—as expressed in the ancient injunction "Know thyself"—or the presence of fragmented or conflicted identities can give rise to strife, ranging from interpersonal altercations and domestic violence to full-scale wars. This paper presents an interdisciplinary framework that integrates the dualities of reductionism and holism, as well as mind–body dualism, which are dialectically united in a common substratum supporting the concept of identity. The model draws on biology—including genetics and neuroscience—as well as logic and arithmetics, to offer a digital description of identity. The philosophical contributions of several philosophers illustrate how logic underpins both psychological development and the ontology of being. The physical dimension of identity begins with neuroanatomy and its fine structures, progressively reduced to genetic mechanisms, molecular processes, and atomic configurations governed by valence geometry. Quantum considerations are introduced to address the deeper substratum and latent human potential. To counterbalance the reductionist analysis, a holistic approach—Authentic Systems—is proposed. This model seeks to uncover personal identity through the identification and interpretation of an individual's life theme: a consistent behavioral pattern observed across the lifespan. Together, these approaches aim to provide a comprehensive understanding of personal identity at the intersection of the biological, psychological, and philosophical domains.

Key Words: Authentic personal identity, neuroscience and human identity, digital identity, molecular psychiatry, artificial intelligence and human identity, logic and psychology, Authentic Systems, identity and personality, mind, brain, philosophy

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> **Socrates**:
> Then the house in which order and regularity prevail is good; that in which there is disorder, evil? And is not the virtue of each thing dependent on order or arrangement? Yes, I say. And that which makes a thing good is the proper order inhering in each thing? Such is my view. And is not the soul which has an order of her own better than that which has no order? Certainly. And the soul which has order is orderly? Of course. And that which is orderly is temperate? Assuredly. And the temperate soul is good? (Plato, *Gorgias*).

Introduction

Radical conflict in the world plagues us, from the international level to the street, and to everyone (Institute for Economics & Peace. Global Peace Index 2024, 2024; Elsner *et al.,* 2025). Of persons worldwide, 12.5% have a mental disorder (WHO, 2022). The U.S. Centers for Disease Control reported, "Suicide is one of the leading causes of death in the United States" (Centers for Disease Control, 2024). Consider "… the dramatic decline in mental wellbeing that occurred between 2019 and 2020, and continued into 2021 through the COVID-19 pandemic, continues to persist with no sign of recovery" (Thiagarajan and Newson, 2024, p.2). Gender dysphoria, or incongruence, is rising, i.e., "… the available highest-quality data clearly indicate TGD [transgender and gender diverse] people represent a sizable and growing proportion of the general population" (Coleman *et al.,* 2022). Demagogues use identity politics to gain and maintain power. This alone should motivate research into human identity, including factors that cause its compromise or fracture.

My paper initiates:

> a rich interanimation between the two [philosopher and neuroscientist], which can be expected to provoke a fruitful co-evolution of theories, models, and methods, where each informs, corrects, and inspires the other. … a very general. framework suited to the development of a unified theory of the mind -brain." (Churchland, 1986, p. 3).

It is less granular theorizing than that of Patricia Churchland (Ibid., p. 411, et. seq.), exceedingly incomplete, but providing a broad panorama of human identity itself, incorporating the material and abstract arenas to form a unity. I suggest how research and discovery can emerge from selected parts of psychology, biology (neuroscience, genetics), chemistry ("molecular psychology"), logic, and mathematics.

Neurophilosophy is the synthesis of two areas: the mental and physical, the well-known mind-body distinction, first proffered by the ancient Greeks (*Phaedo*, 80b–81a; Aristotle, *De Anima* III, 5, 430a15-22) (standard Bekker numbering system) and argued by Descartes (1637/1912, p. 121). With mind combined with body, we metaphorically have the physicist's "singularity", the complete embodiment of the Universe (itself a unique living being deserving a proper noun) and its possibilities. For *Homo sapiens sapiens* (the

technically correct anthropological term for our human subspecies), authentic human identity matters, because it is we who generate philosophy. If such identity is compromised, so is the philosophy. Churchland wrote, "The gain [of neurobiological-psychological theory], accordingly, may be a profound increase in the understanding of ourselves, which, in the deepest sense, will contribute to, not diminish, our humanity" (Churchland, op. cit., p.481). She seeks "...a unified theory of the mind-brain that envisages the co-evolution of theories at all levels of description" (Ibid., p.8). What in our neurophysiology produces behavior and the thoughts propelling it, i.e., one's very being, or existence? Philosophers are saying to neuroscientists that there is something to which elements of the physical brain correspond, that is, consciousness, mentation, ideas, and the like. More explicitly, it is authentic human identity. "Authentic" refers to "origin", ontology, and that which is the case, given its etymology—real, original, genuine, and "one acting on one's own authority" (from *Etymonline*).

How do we know if one proclaiming an identity is not an imposter, mentally disordered, or otherwise presenting a false view of the self by assertions or behavior? And, who hasn't heard of the ancient adage "Know thyself", inscribed on the front of the Temple of Apollo at Delphi in ancient Greece? That one knows something is evidenced by the ability to reproduce it, a modern question being whether replicating neurostructures can produce consciousness, hence authentic personal identity.

Yet, we do not seem to know what consciousness is (Chalmers, 1996; Bayne, 2023; Van Gulick, 2025; Gennaro, 2025; Horne, 2022), let alone the Greek soul or Descartes' "mind". Too, there is no agreement about whether any human identity even exists (Ready, 2020; Hanscome, 2022). Perhaps the insufficiency of physical research can be met by philosophy with its two foundational pillars—ontology (the study of existence) and epistemology (the study of justified belief, or how we know what we know) that can guide us toward discovering an authentic individual identity.

The most fundamental law

Exploring one's existence first looks to reductionism, followed by wholism, as well as the physical and mental aspects of authentic human identity. (NB: I use the more accurate "wholism", as opposed to "holism" to emphasize "whole", or entire. "Hole" simply does not convey that concept; rather it subliminally implies absence.) This is accomplished by obeying the most fundamental law (MFL) pervading the Universe, the "unity of opposites", in modern parlance, "dialectics", the same dialectics of Churchland's "a unified theory of the mind-brain".

In Eastern traditions, the *I Ching* (Book of Changes) expresses a similar principle through Taeguk, or ultimacy, emerging from the interplay of Yang and Yin—positive and negative forces unified in the Tao. Likewise, ancient Hindu thought (e.g., *Rig Veda*) acknowledges this dialectical principle (Chronopoulou, 2024). Heraclitus (c. 535 BCE - 480 CE) wrote:

> The unlike is joined together, and from differences results the most beautiful harmony and all things take place by strife. (Patrick, 1880, XLI) … The harmony of the world is a harmony of oppositions ….(Ibid., LVI, p. 98) … …both are and are not. (Ibid., LXXXI, p. 104)

Aristotle recognized it in his *Physica* nearly 2,400 years ago, identifying change as an essential aspect of nature. This dialectic of opposition and synthesis also underpins the philosophy of Georg Wilhelm Friedrich Hegel (1770–1831), shaping his major works, including *The Phenomenology of Spirit* and *The Science of Logic* (Hegel, 1816/2010, p. 71).

The method

To avoid metaphysical problems, bootstrapping is what mathematicians and logicians do with their axioms and scientists with their hypotheses. Indeed, Churchland refers to "bootstrap … to insight and understanding" (Churchland, op. cit., p. 2). To bootstrap, we need a way to create one from two knowledge creation approaches.

Aristotle, in his 4th century BCE book *Physics*, said things "… become known to us later by analysis. Thus, we must advance from generalities to particulars; for it is a whole that is best known to sense-perception, and a generality is a kind of whole, comprehending many things within it, like parts" (Aristotle, 184a). Rene Descartes said we must "… divide each of the difficulties under examination into as many parts as possible, and as might be necessary for its adequate solution" (Descartes, 1637/1912, p. 15). Wholism (the entirety/ phenomenological/ gestalt) is where Descartes starts to divide to finish with the infinitesimal (today's quantum).

Inherent in solving the mind-body problem is the unity of opposites, the most fundamental law (MFL):

> … the mentality and physicality are features of complex structures of neutral entities. But the entities themselves are free of mental or physical aspects/sides/properties. Therein consists their neutrality. … the dual-aspect theory insists that the two aspects are fundamental and irreducible to each other. (Stubenberg, 2018)

Reductionism and wholism converge, thus answering Churchland's call for mind-brain unity.

Order and the substructure of authentic identity

Why order? Aside from Socrates being right and order necessary for scientific inquiry, the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders* (DSM) is about disordered minds. The World Health Organization's *International Classification of Diseases*-11 (ICD-11/06) scope of inquiry is "Mental, behavioural and neurodevelopmental disorders" (World Health Organization, 2025).

Logic is the study of order (Feibleman, 1979), the language of innate order in the Universe (Horne, 1997). GWF Hegel, child psychologist and logician Jean William Fritz Piaget (9 August 1896–16 September 1980), and work I have written (cf: reference section) explains order and its relation to authentic human identity. Human identity of any kind ultimately is digital, a view explicated below.

The other "half" of order ostensibly (given the MFL) is disorder (the lack of arrangement, entropy, and randomness (Horne, 2017b)), but primary order emerges from the simplest relationship of existence versus non-existence, that is, binary. Indeed, Gottfried Wilhelm Leibniz (1703) in his *Explication de larithmetique binaire* thought that the arrangement of two most fundamental elements was the word of God.

The Origin of Order – the Substratum

Order, as Socrates said, is arrangement. Quantum cosmological physicists think the origin of our existence was a singularity, an amorphous whole, rapidly expanding into our current universe (despite contrary views - Gaztanaga, 2025). Logically, all potential was bound up with this origin, including contradictions, as long as whatever developed adhered to physical laws. Order expresses itself as the infinitesimal in terms of the infinite toward which the Universe expands, binary in its essence. Dividing the amorphous yields discernment, the foundation of order. Aristotle and Hegel exposit the philosophy of the singularity, or substratum.

Aristotle (384–322 BCE), in *Physics,* presents a dialectic similar to that of Heraclitus but connects it to authentic human identity, thereby surpassing Heraclitus and making it immediately relevant to us (in *Basic Works of Aristotle*, 1941).

"Pairs of opposites … are explained by reference of the one to the other" (*Physics* 191b). "The pairs of opposites which the latter class includes are necessary because one member or the other necessarily inheres" (*Physics* 74b). "Pairs of opposites which are contraries are not in any way interdependent, but are contrary the one to the other."

The most fundamental substance is the unity of what is in terms of what it is not. Positing a substratum presents its characteristics and processes, including laws, potential, and authentic human identity (Physics 219b10–219b12; 219b13–219b34; 306b3–306b29; 319a17–319a28; 320a3–320a10; 334a22–334b8).

Hegel (27 August 1770 – 14 November 1831) contributes to our understanding of authentic human identity by explicating being, essence, dialectics, organicity (substance of life), and similarities to modern quantum processes. It is convenient that logic as the language of innate order in the Universe (Horne, 1997) brings us to *The Science of Logic* (1816/2010) in describing the aforementioned.

His constituent elements of philosophical discourse—being, nothingness, becoming, existence, reality, essence, reflection, concept, and method—converge in the notion of ground. Such closely parallels the way contemporary physicists conceptualize the fundamental constituent of matter as a singularity, perhaps Aristotle's substratum. Equally revealing of Hegel's dialectic and ground is Hegel's *Encyclopedia of the Philosophical Sciences in basic Outline, Part I: Logic* (Hegel, *Encyclopedia*, 1830/2010).

Paradoxically, Cartesian cuts – a process – ultimately are in the quantum world that is reached by those cuts. Recursively, Cartesianism looks at itself, a true exercise in second-order cybernetics. How could it be that order appears by cutting a formless singularity when the cuts are subsumed and amorphous themselves? How does order emerge from chaos (the inchoate/amorphous)? (NB: Stuart Kauffman in his *The Origins of Order* never says what order really is or identifies its origin.) For now, we relegate this to one of those mysteries of our existence.

Hegel's account of the emergence of authentic human identity bears a notable resemblance to autopoiesis and self-organization, where identity arises through recursive self-production and emergent complexity. These outcomes, often unforeseen due to informational limitations, underscore the principle of emergence as central to both nature and consciousness. Scholars see Hegel as relevant to how quantum physicists view the world (Žižek, 2025; Gruner and Bartelmann, 2015; Klein, 2019; Houlgate, 2024; Williamson, 2009; Kim, 2020), suggesting how we should approach the description of authentic human identity.

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Order, Arithmetic, and Logical Language

From the substratum comes the binary, with the initial distinction allowing something to be in terms of what it is not. Our elementary dimension (the line) contains the minimal two entities needed for arrangement. Either one entity occurs only before or after the other, characterizing the innate binary substance of our world—digital physicists heartily agreeing.

Logic is the centerpiece for understanding authentic identity. Jean Piaget wrote, "… there exist outline structures which are the precursors of logical structures, and which can be formulated in terms of the algebra of logic" (Piaget, 1958, p. 58). He demonstrated, with the formal language of logic, the progressive development of a person's mentation as they assimilate the innate temporal and quantitative relational structures, such as the understanding of sequential order and the conservation of quantity (Piaget, 1970). For example, given two containers, one (A) will or will not hold the contents of the other (B), or both will hold the same quantity. The horseshoe on its side symbolizes implication (if–then) or containment (set inclusion). Euler diagrams display all containment relations—sets, supersets, and their proper forms. Piaget asked, "What is the relationship of one-to-one correspondence to the development of the notion of natural numbers?" (Ibid., p. 5).

The simplest counting is binary (0000, 0001, 0010, 0011, etc.), corresponding to the simplest dimension, the line, the either-or (behind or in front). Each of these symbols (with their concepts) has a mathematical relationship to the others. Logical and mathematical space converge. This is the Table of Functional Completeness (ToFC):

p	q	f_0	f_1	f_2	f_3	f_4	f_5	f_6	f_7	f_8	f_9	f_{10}	f_{11}	f_{12}	f_{13}	f_{14}	f_{15}
0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
0	1	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
1	0	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1

Figure 1. Table of Functional Completeness (ToFC)

Here is the set of all possible logical operators in an either-or (binary) logic. These include "and" (f_1), "or" (f_7), "equivalence" (f_9), and "implication"/if-then (f_{13}), among the 16 totals. Simultaneously, this space contains binary counting, from nothingness/contradiction (0000), to 0001, through unity/tautology (1111) (Horne, 2017a). (Be mindful that O and 1 are symbols only.)

Piaget (1972) converted the ToFC into implicative normal form, i.e., each of the 16 functions/operators/connectives expressed in terms of the containment operator. F_7, "or", as in p v q (p or q) is: p v q = ~p→q (p or q is equal to not p implies q). These, in turn, convert to set inclusion, as described above.

Reductionistic Foundations of Authentic Human Identity

Neurocorrelates

Since antiquity, humans have contemplated the artificial replacement of bodily parts. Prosthetic devices—dating as far back as the ancient Egyptian leather "Cairo Toe"—have served to replace lost limbs and organs. Now, it is the "brain in a bottle," in which everything below the neck is artificially replicated. The greatest challenge, however, lies in reproducing the brain itself. Where is it; what does it do? Enter neurocorrelates, the specific neural mechanisms or brain activity patterns associated with a particular psychological state, cognitive function, or behavior.

Gray's Anatomy (published in 1858) has its latest (2021) edition as an e-book. Egyptians performed trepanning to release "bad humors" from the skull, and Alcmaeon of Croton (6th–5th century BCE) (Huffman, 2021) realized that from the brain comes thought. Phineas P. Gage (1823–1860), a U.S. railroad construction foreman, survived a large iron tamping rod ramming through his skull, destroying a significant portion of his left frontal lobe. The profound changes in his personality that followed drew considerable attention, particularly from physicians and early psychologists. Emil Wilhelm Georg Magnus Kraepelin (15 February 1856–7 October 1926), in his *Lectures on Clinical Psychiatry, Compendium of Psychiatry for the Use of Students*

and Physicians, and Manic Depressive Insanity and Paranoia, mapped brain structures to human behavior.

Neuropsychiatry and molecular psychiatry now are on the verge of creating organic entities that can replicate mentation. Brain research is represented by the Blue Brain Project, China Brain Project, Human Connectome Project, Riken Center for Brain Science, and various brain atlases. While the human brain has not been replicated, a housefly's brain has been (FlyWire Brain, 2025).

Among hundreds, if not thousands, of articles, we have tantalizing random insights, like:

> Most studies investigating the neural correlates of conscious perception have focused on the cerebral cortex, and the functional role of subcortical structures has rarely been explored. It has, however, been proposed that subcortico-cortical loops play a prominent role in conscious perception. (Fang *et al.,* 2025)

and

> [S]ix papers in this Special Issue (International Journal of Molecular Sciences) offer valuable insights into the complex and diverse nature of cognitive processes. They explore various aspects of memory and learning, such as the role of neurotransmitters and neuromodulators, the significance of synaptic plasticity, and the possibility of pharmacological interventions to modulate cognition (Battaglia *et al.,* 2024).

Genetics

Genes contribute to the foundations of human behavior. Molecules (with their valences) construct genes, and genes, in turn, shape neural structures (Valk *et al.,* 2020; Zhou and Ming, 2024). In related cell–genetics–neural structures research, the Allen Institute for Brain Science is "cataloguing and genetically profiling cell types of the brain" (Allen Institute for Brain Science, 2025). The U.S. National Institute of Mental Health's Research Domain Criteria (RDoC) (National Institute of Mental Health, 2025) seeks to understand the etiology, development, and nature of mental disorders by integrating information from various research areas, such as neurophysiology, genetics, psychology, and self-reports.

Behavior genetics is the study of the relationship between genetic variation and psychological traits, and it continues to engage with debates historically associated with eugenics, though often in a more nuanced and scientifically grounded form—focusing on how genetic factors may influence intelligence and behavior (Chabris *et al.,* 2015; McLeod, 2018; Gong *et al.,* 2017; Chester *et al.,* 2015; Klaus *et al.,* 2017; Krammer and Goren, 2021). If we can identify at least one of

those DNA-generated potentials that constrain one's behavior, we can progress. Intelligence is one (Deary *et al.,* 2020; von Stumm, 2021). Physique is another (Kayser *et al.,* 2023; Semenova *et al.,* 2023). Of course, there are many others. We need to specify measurable potentials.

Molecular psychiatry

Molecular psychiatry originated in works like The Molecular Foundations of Psychiatry (Hyman and Nestler, 1993). Currently, Molecular Psychiatry is hosted by the prestigious journal *Nature* (2025), where on its "Journal Information" page, we find, "Molecular Psychiatry publishes work aimed at elucidating biological mechanisms underlying psychiatric disorders and their treatment" (Molecular Psychiatry, 2025). Major universities are represented by the Molecular Psychiatry Research Group – University of Gothenburg, the Molecular Psychiatry Laboratory of London's Global University, University College London (UCL), and Yale University – The Division of Molecular Psychiatry.

From molecules we come to atoms and their components, where binding forces arrange their constituents according to mathematically definable configurations. Clearly, DNA is composed of molecules, then atoms. We ultimately can derive at least two levels of geometric relations/mapping—among synaptic structures corresponding to logical operations (Friedman, 2021 [preprint]; Mondal and Ray, 2022; Petersen *et al.,* 2022) and then at molecular levels (Manca and Scollo, 2021; Clauvelin *et al.,* 2012; Martínez *et al.,* 2025; Xie *et al.,* 2020; Bertolet *et al.,* 2022).

To determine the shapes of molecules, the Lewis electron dot structure, while not determining the shapes of molecules, is the first step in predicting them. With the Lewis structure, we apply the valence-shell electron-pair repulsion (VSEPR) theory to determine molecular geometry and electron-group geometry (LibreTexts–Chemistry, 2024). The molecular level is more stable than the atomic level and amenable to valence computation, with the VSEPR theory—an approach for predicting "3-D molecular geometry based on the number of valence shell electron bond pairs among the atoms in a molecule or ion" (Millipore Sigma, 2024).

Illustrative of geometric assembly is artificial gene synthesis (artificial genes). Neural assemblies uncovered at a coarser level may explain whole-brain activity statistics and reflect structural connectivity (van der Plas *et al.,* 2023). There is biomolecular computing "to reproduce the tenets of digital logic" (Frezza *et al.,* 2007).

Neurogeometry is an emerging field (Sarti and Citti, 2011), punctuated by the arithmetics of mind (Abler, 2010) within the context of what Youvan (2023) calls the "Symphony of the Cosmic Mind: A Journey

into Mathematical Metaphysics and Cognitive Estrangement," where he writes,

> In the grand theater of our comprehension, the specter of cognitive estrangement forms a novel act, a departure from the traditional drama of understanding … … Where does the richness of this estrangement arise? The domain of mathematics, a realm unbounded by the physical chains of the cosmos, … (Youvan, 2023, p. 3)

As an example, cortical geometry shows promise in contributing to the mathematics of mentation (Schwartz *et al.,* 2023). The geometric characterization of neural activity—along with its underlying arithmetic and logical structures—is analogous to the way particle physicists study interactions in a hadron collider, employing tools such as Feynman diagrams and Dirac equations.

The quantum and unseen

Logic/arithmetics underpin neurogeometry and are based on the law of non-contradiction. Authentic human identity is the singularity (unity of mind-body). Quantum processes exist in the singularity. From the quantum world emerges the macro world, and Aristotle's substratum and Hegel's ground partially characterize the quantum world.

Searching under "quantum mind/brain/consciousness" and related phrases will reveal work by David Bohm, Stuart Hameroff, Karl Pribram, the journal *Neuroquantology*, and Wikipedia's "Quantum Mind" article. For example, see Stuart Hameroff and Roger Penrose (*The Emperor's New Mind*) for detailed quantum calculations in microtubules, succinctly and eloquently described, and referenced by Wikipedia in an article, "orchestrated objective reduction." What lies further out of sight of the quantum? Wikipedia often is frowned upon by academia and isn't peer-reviewed, but it frequently provides well-referenced (usually peer-reviewed) overviews of a topic, with the caveat that, like any document, it must be checked for validity.

There are Mocombe's "Phenomenological Structuralism" (Mocombe, 2021) and "Consciousness Field Theory" (Mocombe, 2023). Williams-Orlando (2021) joins him with consciousness as the fifth field theory. Modern thinking has subsumed Carl Jung's "collective consciousness." While scholars cast aspersions on Rupert Sheldrake's (Sheldrake, 2025) "morphic resonance" and "morphic fields," field theories of consciousness are attracting serious scholarly attention (Pockett, 2013; Hunt *et al.,* 2024; McFadden, 2006; Meijer and Geesink, 2017; Polyakov *et al.,* 2024).

Wholistic Foundations of Authentic Human Identity

Phenomenology is a branch of philosophy that studies the structures of experience and consciousness. It is a qualitative or wholistic method of inquiry, more of an art form befitting a discussion in aesthetics (again, I prefer "wholistic" to "holistic" to highlight the "whole" in contradistinction to reductionism). Denis Moran, a prominent advocate of phenomenology, writes, "I shall defend phenomenology as a holistic approach that rightfully defends the role of subjectivity in the constitution of objectivity and recognizes the inherent limitations of all forms of naturalism, objectivism and scientism" (Moran, 2019). Phenomenology has been described in various ways, as in:

- a philosophy of method itself (University of Edinburgh, 2022);
- a movement (University of Sydney, 2024);
- a philosophical framework (Pazurek & Koseoglu, 2024);
- and a philosophy in its own right (Qutoshi, 2018).

The *Stanford Encyclopedia of Philosophy* (SEP), the *Internet Encyclopedia of Philosophy* (IEP), and the Routledge *Encyclopedia of Philosophy* (REP) offer a reasonable orientation to the field. Edmund Husserl, Martin Heidegger, Jean-Paul Sartre, Maurice Merleau-Ponty, Emmanuel Levinas, and Jacques Derrida are phenomenologists, each with their own version.

Overall, phenomenology is, as the word "phenomenon" says, things as they appear to us, not their causality or development (Husserl, 1982, sec. 75). Phenomenology's value in reductionistic research is telling the investigator to pay attention to the *gestalt*, the whole, or the context of Cartesian-based findings. Because of its wholistic nature, phenomenologists, perforce, would not search for the infinitesimal (Embree, 1998). Epistemologically, phenomenology aligns with a form of empiricism, insofar as it grounds knowledge in lived experience and sensory perception. A first step towards learning about one's authentic identity is by observing what they have done.

Life Theme

A life theme is an existential narrative pattern of one's behavior, produced by the internalization (living) of values (axiology), or perceptions of meanings, or values stemming from one's authentic identity (Csikszentmihalyi, 2014). Life themes include love, personal worth, freedom, power, justice and truth, overcoming challenges, survival, connection with others, dominance, personal growth, fear, transformation, agency, and redemption.

Value sets have hierarchies, with physical/material ones at the bottom and transcendental/abstract ones at the top, illustrated by two common values pyramids - Maslow's hierarchy of needs and Scheler (Czopek, 2005)—not unlike the popular Data-Information-Knowledge-Wisdom (DIKW) Pyramid. From these values may be extrapolated four archetypal behavior patterns (Major, 2021; Rahman, 2025) ancient Greeks called “virtue ethics”, i.e., how one lives their values.

Requisites for an Identity Probe

This section establishes the two critical requirements for a successful identity probe. The first one is philosophy, which is not only about the love and pursuit of truth (especially knowing ourselves) but also about thinking about how to obtain knowledge. To this point, we have had a glimpse of this in the section on the substratum, order, and the laws governing our existence. Applying the most fundamental law, any human identity has a mental and physical aspect of reality, one aspect existing because of the other. One may assert values (the mind), but how do you know if s/he truly holds them? Thinking exists because of doing, and conversely. This complete substratum method (thought of by philosophers) highlights the insufficiency of personality assessments, values clarification programs, counseling, and even philosophy courses (Horne, 2024).

We have known for millennia: “By their deeds you will know them. Does a man gather grapes from thorns or figs from briars?” (MAT.7.16.NMV). Think of archaeologists and forensic scientists studying the effects to know their subject, the same being true with particle physicists. Knowing a person entails knowing what is meaningful to them, that is, values (axiology, the study of values). How s/he internalizes (lives) values is validated by observing what they do. Or, as Churchland (op. cit., p. 409) would ask, “The guiding question in the search for theory is this: What sort of organization in neuron-like structures could produce the output in question, given the input?” — that output being the behavior. Here, what life theme produces behavior?

Overview of the Authentic System

Authentic Systems is a set of procedures interacting as a whole method to discern one’s real, true, or authentic identity. That is, it determines, as the root word of “authentic” indicates, the origin of a person’s being, or existence. From the above, we have been, or existence, itself, with essence indwelling in existence, and the essence characterized by meaning, or values, all exhibited by one’s actions. How the actions match the asserted values is virtue ethics (Haslanger, 2014), ethics, the code of conduct, and virtue, meaning moral perfection (from the Greek “aretē”, or excellence). Acting otherwise is

hypocritical and has been admonished for time immemorial, represented by Aristotle in *Nicomachean Ethics* and Eastern civilizations (Wisdom Library, 2025). Socrates said that virtue depends on order. A disordered person (again, the *Diagnostic and Statistical Manual of Mental Disorders*) disrupts the internalization (living) of values (meaning).

The Authentic Life Theme Assessment (ALTA) questions center on what a person has done and objects s/he has interacted with (Voris, 2023b). The results of the assessment place the person in one of four orientations in life, as exhibited by behavior throughout life. These orientations are founded on international contemporary categorization and history extending back to ancient times.

For almost three decades, the United Nations Educational, Scientific and Cultural Organization (UNESCO) has been building on its 1996 report, Learning: The Treasure Within. Four domains of learning are set forth in Chapter 4, "The Four Pillars of Education":

> Learning to know, (Wisdom) by combining broad general knowledge with the opportunity to work in depth on a small number of subjects. This also means learning to learn, to benefit from the opportunity's education provides throughout life.
>
> Learning to be, (Love) to develop one's personality and act with greater autonomy, judgement and personal responsibility. The aim is to provide individuals with the self-analytical and social skills to develop to their fullest potential.
>
> Learning to do, (Power) to acquire not only occupational skills but also, more broadly, the competence to deal with many situations and work in teams.
>
> Learning to live together (Justice), by developing an understanding of other people and an appreciation of interdependence – carrying out joint projects and learning to manage conflicts – with respect for the values of pluralism, mutual understanding and peace. (Delors *et al.,* 1996)

These translate into four life themes, based on four categories of virtue ethics found throughout history (Horne, 2024).

PLATO (*Republic* Book IV, 426-435 – Bekker)	ARISTOTLE (*Aristotle – Nicomachean Ethics* –)	AUTHENTIC SYSTEMS
wisdom	prudence	wisdom
justice	justice	justice
moderation	temperance	love
courage/fortitude	courage	power

… wise, courageous, moderate and just. (Plato, *Republic* 428e)

Figure 2. Authentic Systems compared to ancient virtue ethics systems (screen capture of table)

From South Asia come the four puruṣārthas: Dharma (righteousness, moral values), Artha (prosperity, economic values), Kama (pleasure, love, psychological values), and Moksha (liberation, spiritual values, self-actualization) (Salagame, 2016). Wisdom is Moksha; Justice is Dharma; ethics (rules of conduct codified by law) is exhibited as morality. Love, of course, is Kama. Power is Artha, the prosperity and economic values as evidence and stemming from one's attempt to make others and the environment do her/his will.

The confluence of these sources – Classical Greek, South Asia, and the modern UNESCO suggests a bootstrap, or reference frame for typifying authentic human identity. Authentic Systems presents the behavior exhibited by the four themes.

Love: Advocates of Humanity

> One with a life theme of love has a "keen awareness of the needs of self and others. empathy, advocates for other peoples, rescues others, is a communitarian, family-oriented, cares for animals (and plants and the environment), volunteers, is altruistic, shares, and generally puts others above themselves" (Voris, 2019, Discover the Power, p. 35).

Justice: Arbiters of Humanity

> … awareness of what is fair, right and good and can balance between fact and sentiment. … First, abstractly, as an arbiter and negotiator, guiding others toward the ideas of excellence and integrity. Second, physically, as an artist or engineer seeking symmetry and harmony through the art of creating." (Ibid., p. 47)

Wisdom: Teachers of Humanity

Persons with a wisdom theme "… possess a natural, deep desire to grasp knowledge" (Ibid. p. 59) that may be compulsive, they are more objective, as opposed to being emotional. One is "…driven to know what you feel is required" continuing "to learn more and more until you are sufficiently satisfied only to be driven again" (Ibid, p. 60).

Power: Leaders of Humanity

Power concerns, "... a need to act upon your thoughts and get into action. Empowerment finds its expression and purpose through you as a natural leader and agent of change" (Ibid, p. 69). "Power people value the alphas and implore others to be so, and are the resource to make this happen, ... advising, consulting and guiding others to achieve their own self-realization and mastery" (Ibid., p. 70). These persons are the ones who emphasize responsibility, decision-making, assertiveness, and other traits that make persons leaders.

While one theme dominates (reference frame), others exist to varying degrees. Each of these has interactions with others, with 16 possible permutations, ranging from a person meeting another with the same theme or others, and getting along to total antagonism toward the other.

These themes have an Authentic Identity Blueprint - being, doing, and escape. Being is the Authentic motivation, doing the synthetic motivation, and escape the rejuvenating motivation, these the roots, branches, and tree leaves.

Authentic Human Identity and Its Future

Neuroscientists, geneticists, psychologists, and related experts are advancing our understanding of human identity (authentic or otherwise) analytically. Wholistically (not "holistically"), human identity is exhibited by behavior, the internalization of meaning, or values. Philosophy, often referred to as the "queen of the sciences," seeks to unify these efforts into a coherent and comprehensive framework for understanding ourselves—a "functional story" (in Churchland's words, op. cit., p.405) within which neuroscience discoveries can be situated. Our way of understanding is through the most fundamental law, the unity of opposites. Something exists because of what it is not. Here, it is mind-body. Such unity becomes a bootstrap, a singularity containing all there is, just like the singularity that birthed our universe.

Churchland argued, "The value of theory is that it motivates and organizes experimental research, and good theory opens doors to important experimental results" (Ibid., p. 404). Moreover, the value of a theory is in its ability to predict, and if theory-oriented research and development on the physical (neuroscience, genetics, etc.) and mental (psychology, identity probe, etc.) aspects is valid, we should be able to foresee the results and, above all, replicate human identity. One's life theme, as revealed by the Authentic Systems identity probe, facilitates that prediction.

Challenges across all domains continue to hinder our quest for self-understanding, as in artificial intelligence, digitization of authentic identity (Tipler, 1994; Bostrom, 2003; Canarutto, 2011), and

autopoiesis with its unforeseen events. that an AI entity is human is registered by the Turing Test and its alternatives. Our job is to examine the nature and role of belief in bringing AI into our lives. If human identity (authentic reference frame) is compromised or disordered, then so is how one understands the world.

There are too many research directions to summarize here, but if we can find digital correlates to behavior, we have indeed opened a Pandora's Box. An immediate research area is validating the wholistic Authentic Systems identity probe by finding neural and genetic correlates to one's behavior. Forensics and profiling methods used by investigatory agencies might supplement the specification of life themes.

At the base of meaning are the four virtue ethics categories, which some research indicates may be founded on deep structures, as in the foundation of quaternary value systems. Is there a deep quaternary geometry of behavior?

Social simulations such as Meta Horizon (2025), Second Life (2025), VRChat (2025), and similar virtual societies warrant research attention for observing behavior in controlled modeling and simulation environments. These platforms offer promising opportunities to validate identity probes like Authentic Systems. Could understanding an individual's life theme enable us to predict their behavior within these virtual societies?

We must be open-minded about field theories of mentation (including morphic fields) and conceive ways of testing them. For example, is it conceivable to develop a device—metaphorically akin to a radio receiver—that can detect perturbations within the subtle fields of consciousness? At the reductionist level, perhaps by correlating DNA with neural structures, we may eventually use nanotechnology and synthetic DNA to create devices capable of exhibiting human-like behavior.

Summary and Conclusions

One's knowing their authentic identity can contribute to obtaining peace in the world, as disordered individuals mean disordered societies. Describing this identity requires reductionism and wholism, both in the physical and abstract domains, but, above all, obeying the most fundamental laws of the Universe, the unity of opposites and succession.

Revisiting Churchland:

> (1) mental processes are brain processes, (2) the theoretical framework resulting from a co-evolution of neuroscience and psychology is bound to be superior to folk psychology, and (3) it is most unlikely that we can devise an adequate theory of the

> mind-brain without knowing in great detail about the structure and organization of nervous systems. (Churchland, op. cit., p. 482)

1. It may be more accurate to say that mental processes, to some extent, appear mappable to brain activity. However, field theories of consciousness suggest that mentation could be partially independent of the brain, positioning the brain not as the originator of thought but rather as a repository, modulator, and detector of mental phenomena. A possible validation experiment would involve constructing an artificial brain to determine whether it can generate—or perhaps "receive"—mentation.

2. If folk psychology were sufficient for understanding, why have discovery processes? Myth and fable would be sufficient to satisfy our curiosity.

3. This recapitulates the necessary Cartesian counterpart to wholism, both forming the whole investigatory method.

Overall, a philosopher says to the neuroscientist that it is not only philosophy but interdisciplinary research, indicating the essential non-neuroscience elements that make up the context within which the neuroscientist is investigating and to which s/he must pay attention. While the biological aspects of identity description are important, so are the wholistic ones, not the least of which are identity probes, such as Authentic Systems.

When we reduce neurostructures and their functions to mathematics, as logic and arithmetics converge in the same space, we are also reducing arithmetics and logic to spatiotemporality, recalling that number and event are the same. What is authentic (real)—an authentic self—must be derived from an innate genetic framework (ultimately mathematical) in order to be authentic.

The inner self initiates and propels one to destiny. Ontology begets teleology. Discovering the inner self is discovering its "physical/material" foundations—neurological, genetic, molecular psychiatry (molecules constituting the chemicals that make up the molecules that make up the DNA)—ultimately geometry and logic/arithmetics. Arithmetics and logic are discoveries, and, given this chain, so is destiny. They are the reductionist complements of the physical: the abstract, mental, synthetic, whole, phenomenological, etc. (cf. Hegel's *The Science of Logic*; Husserl's *Logical Investigations*/*Formal and Transcendental Logic*).

Quantum thinking permeates our current understanding of the substratum (unity of opposites as a singularity) and the characteristics of that singularity, based on our knowledge of the quantum world. For us, individual authentic identity emerges not only as a singularity but as our acceptance of it. If the Universe is conscious, with consciousness a field, then we as individuals are

particles in it— "bubbles" of individuals popping up and disappearing, just as particles do for the physicists.

But, again, it all may be Maya, or illusion (Vivekananda, 2025, Chapter III), or a simulation.

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