**A Parsimonious Solution to The Hard Problem: Complexity and Narrative**

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The author has no competing interests, financial or non-financial, directly or indirectly related to this paper.

**100-word summary**

In biology, a self-organized hierarchy of increasingly complex dynamic systems makes surprising leaps between levels. From ants organized by physical microlaws emerges an ant colony organized by eusocial macrolaws. Likewise, from *material* interactingbrains emerge successive levels of *immaterial* dynamic systems: first thoughts, feelings, etc., then narrative, then personality. Narrative conveys subjectivity and your stream-of-consciousness narrative may constitute phenomenal consciousness. Cavarero concurs. Every dynamic system is homeostatic and McDowell et al. showed that a dream (narrative) is homeostatic for personality. Phenomenal consciousness (also a narrative) may confer the same evolutionary advantage. Personality and body/brain, a chimera of symbiotic life-forms, constitute interactionist duality.

**Keywords:**

Self-organized hierarchy of complex dynamic systems.

Immaterial dynamic system emerges from a material system.

Personality emerges from narrative.

Conscious experience is stream-of-conscious narrative.

Phenomenal consciousness homeostatic for personality, an evolutionary advantage.

Chimera of symbiotic life forms, interactionist duality.

**Abstract**

(250 words)

Three decades after Chalmers named it, the ‘hard problem’ remains. I suggest a solution. Biological dynamic systems interact according to simple rules (while the environment provides simple constraints) and thus self-organize to become a new, more complex dynamic system at the next level. This spiral repeats several times generating a hierarchy of levels. A leap to the next level is frequently creative and surprising. From ants, themselves self-organized according to physical/chemical laws, may emerge an ant colony self-organized according to eusocial laws. A dynamic system need not be material. A living language (immaterial) is a complex adaptive system. Body/brain are material but the next level of complexity, a *psychological* dynamic system, a thought, feeling, image or ideal, is less material. From several psychological dynamic systems emerges the next level, narrative (immaterial), and from multiple narratives emerges personality. Concrete evidence explains how an early narrative emerges from body-and-brain. Evidence also shows that personality emerges from narrative. Even an objective narrative captures subjectivity since the teller’s choice of content is subjective. I argue that the ‘stream-of-consciousness’ story (movie) you are currently telling yourself (watching) is your conscious experience, ‘what it is like’ for you to be conscious. Adriana Cavarero’s arguments support this. Each level of a hierarchy of dynamic systems must necessarily be homeostatic, *at that level.* McDowell et al. (submitted, in revision) reported evidence that a dream (a narrative) supports personality homeostatically. Perhaps the evolutionary advantage of conscious experience, also a narrative, has always been that it too supports personality homeostatically. Personality and body/brain, a chimera of symbiotic life-forms, constitute interactionist duality.

**The hard problem**

The hard problem that Chalmers⁠ named (1995 pp. 1-4) is that we cannot explain phenomenal consciousness (experience) reductively in terms of cognitive or neural mechanisms because experience is a subjective state. There are several objective functions associated with consciousness, reportability, internal access, integration, control, focus, and wakefulness, all of which could be explained reductively because they seem to be the product of cognitive or neural mechanisms: if we can identify the ‘moving parts’ of the mechanism and analyze how they work together, we have explained the result. But these functions could all occur ‘in the dark,’ or ‘free of any inner feel … It is widely agreed that experience arises from a physical basis … but why should physical processing give rise to a rich inner life at all? It seems objectively unreasonable that it should, and yet it does.’ Chambers argued that we need a non-reductive explanation.

Seth and Baynes (2022) categorized neuroscientific theories of consciousness into four groups: ‘higher order,’ ‘global workplace,’ ‘re-entry and predictive processing’ and ‘integrated information’ but none of these have yet explained conscious experience. Clark and Chalmers (1998)⁠ argued that external mechanisms and cultural practices are part of consciousness (the ‘extended mind’) and thus recognized more complexity. Clark (2023 pp. 4-6, 217-28) argued that the brain is a ‘prediction machine’ or an ‘experience machine’ but said this does not directly address the hard problem (ibid. p. 213). In 2023 Chalmers and Koch agreed that the hard problem remains unsolved (Horgan 2023).

I give evidence here for an explanation that is not reductive but prospective: phenomenal consciousness arises not from physical processing but from *narrative*, a complex dynamic system that emerges from psychological components. One of my original contributions to this discussion is to notice that complexity theory can explain how the *mental* emerges from the *physical*. The fossil record proves that a hierarchy of progressive layers of complexity emerged in biology. I discuss evidence that the same hierarchy continues further into the mental realm through at least three successive layers of complexity: first thoughts, feelings, perceptions etc., then narrative, then personality.

More radical solutions to the hard problem have been proposed: conscious experience may not exist (Dennit 1991); conscious experience may be due to an additional ‘fundamental feature of the world alongside of mass, charge, and space-time’ (Chalmers 1995, p14); following Integrated Information Theory, some modicum of experience might be present in any matter, even an atom, that forms an ‘irreducibly integrated Whole’ (Koch, 2019 p 159). My proposal invokes no new principle but is derived from complexity theory and narrative.

Since experience is subjective it is likely that an explanation of it will not be exclusively objective but will include other subjective phenomena. Narrative is necessarily subjective. The choice to tell this story rather than another and to emphasize this aspect rather than another expresses something of the subjectivity of the teller.

Vendler (1999, p. 17) said:

The ethics of lyric writing lies in the accuracy of its representation of inner life. Shakespeare’s duty as a poet of the inner life was … to be accurate in the representation of the feelings of his speaker.

Here ‘inner life’ and ‘feelings’ refer to phenomenal consciousness.

Cavarero (2000) argued that a person needs to hear their own story told by another, because only then can a person become conscious of *who* they are uniquely, rather than *what* they are as a generic abstraction — butcher, baker, candlestick maker (pp. xiv-xvii). Oedipus desired above all to hear the story of his own birth (pp 7-15). Cavarero’s ‘now he knows *who* he is’ (p. 12) points to phenomenal consciousness.

**A prospective model**

The brain is not a machine that can be analyzed reductively into parts of which it is the sum, but something dramatically different, a *dynamic system.* Imagine a waterwheel in a turbulent stream. If the water stills, the wheel continues to exist but the turbulence vanishes. The waterwheel is a machine while the turbulence is adynamic system, which means that it only exists while energy flows through it. A living brain, likewise, only exists while energy flows through it ([McDowell 2010,](https://philpapers.org/rec/MCDADC) pp 12-15).⁠ Because the brain consists of many dynamic systems interacting together, it is a *complex* dynamic system and, because it records what it learns in memory and therefore can evolve during its lifetime, it is also a complex *adaptive* system (see below). A machine has a predetermined action. If you wish to change that action, you must alter the machine. A complex adaptive system, by contrast, spontaneously engages with its environment to create something new (Holland 1992 p. 20).

A newborn is a complex adaptive system that moves its mouth seeking to suck. It has never met a nipple or breast but, if they are offered, it will engage with them (and the mother) and immediately begin to build a relationship. A city is a complex adaptive system composed of dynamic systems of exchange — trades between people — that remembers its changes through contract and law. A city continually seeks to engage in new ways with its surroundings.

**Complexity**

An explanation of consciousness should account for the degree of complexity that consciousness represents. The astronomically complex structure of the human body-and-brain cannot be specified by genes because there are relatively few genes and because a gene never specifies a three-dimensional structure.[[1]](#footnote-1), [[2]](#footnote-2) (see also [McDowell 2010](https://philpapers.org/rec/MCDADC), pp 10-12). A gene controls the *timing* or *degree* of a development. For example Pinson et al. (2023) recently identified a mutation in humans that increases the degree to which neurons proliferate in the frontal cortex.

Holland (1998, pp. 1-14, 115-18, 121-24, 141-142, 188-190, 202-220, 225-27), Gell-Man and others developed a new paradigm to explain how complexity *emerges*. Complexity *self-organizes* when a group of simple dynamic systems spontaneously interact according to simple rules while the environment provides a few simple constraints, that is, criteria that select which interaction is preserved. The interaction thus selected constitutes a new, *more complex* dynamic system. A group of these more complex systems then repeat the spiral by themselves interacting spontaneously according to simple rules while the environment provides simple constraints. The interaction thus selected again constitutes a new dynamic system *more complex yet*. This spiral can repeat several more times, creating a hierarchy of layers of increasingly complex dynamic systems and it is through such repetitions that the astronomical complexity of the human body-and-brain self-organizes spontaneously with minimal direction from genes. This new paradigm has been validated by observations in many different fields ([McDowell, 2010](https://philpapers.org/rec/MCDADC) pp 12-15).

In consciousness theory, some authors argue that consciousness is self-organized (Cleeremans et al. 2020, p. 112), or that the mind is a dynamic system (Kirchhoff and Kiverstein 2019, pp 16, 19-23). Tschacher et al (2020, p. 353), concluded that ‘Structural conceptualization from a complex systems point of view addresses solely the basic aspect of intentionality, yet not the phenomenal nature of intentionality. This limitation points to a failure of the naturalization of conscious intentionality altogether… Naturalization is *the explanation of mental phenomena by physical phenomena,* [my italics]and we have encountered serious obstacles of this approach.’ One of my contributions here is to trace four successive levels of one complex dynamic system: body/brain and environment; thought and feeling; narrative; and personality.

Next I sketch the hierarchy of complexity in biology, both to make the new paradigm more real and to demonstrate that leaps in complexity tend to be surprising.

**Levels of complexity in biology**

1. A first level of complexity emerges when 21 different small molecules, amino acids, are linked together in a specific sequence, like a string of beads, to create a chain that spontaneously folds into a compact globule, an enzyme. Thus, when a group of simple components (the chain’s amino acids) interact spontaneously according to simple rules (fold) there emerges a complex three-dimensional form. Because the average chain length is about 400 an astronomical number of different amino-acid sequences are possible but a much smaller number of functional sequences are selected. Each enzyme serves to catalyze one specific chemical reaction and each enzyme-plus-chemical-reaction constitutes a *simple* dynamic system.

2. A second level of complexity, a *complex* dynamic system, emerges when a group of the above simple dynamic systems interact spontaneously according to simple rules — for example the law of supply and demand — to form abiochemical cycle.One cycle, *aerobic respiration*, mimics a fire in your fireplace. It consumes fuel and oxygen, creates carbon dioxide and water and, at the same time, recharges small molecules that, functioning like batteries, disperse throughout the cell to bring energy wherever it is needed.

3. A third level of complexity emerged when a group of such biochemical cyclesinteracted spontaneously, according to simple rules, to form a *prokaryotic* cell, a bacterium or a blue-green algae.

4. Later in the course of evolution several different kinds of prokaryotic cells interacted spontaneously to form larger and more complex *eukaryotic* single-celled organisms (fourth level).

5. Later yet, a multicellular plant and a multicellular animal emerged from the interactions of differentiated eukaryotic cells (fifth level).

6. A colony like an ants’, bees’, or termites’ nest emerges from the spontaneous social and economic interactions of many individual insects (sixth level). Notice that, for this level, interactions are *not* based on physical (chemical) processing but on eusocial processing. The phenomenon, colony, which emerges at this level has thus escaped the tyranny of requiring physical explanation: instead its explanation requires *macrolaws* that operate at the higher level of eusocial colonies (Holland 1998 pp. 214-15, 225-30). A macrolaw is constrained by (does not violate) the physical microlaws which precede it but a macrolaw is not a logical derivation of those microlaws.

7. An ecosystem emerges from the interactions of organisms and colonies (seventh level).

8. The biosphere emerges from the interactions of ecosystems (eighth level).

This schematic account shows that the transition to the next higher level of complexity can be creative and surprising.

**Complex adaptive system**

A cell is an adaptive system because it can remember its components through the DNA sequence of its genes and also can remember any mutation in its DNA sequence (see footnote 1). Thus, through a series of mutations, a cell can adapt and evolve just as, in one lifetime, a brain can adapt and develop by remembering what it learns (Holland 1992, pp 17-20).

Both a cell and a brain are biological adaptive systems while, as said earlier, a city is a non-biological adaptive system. Another non-biological system is the body of law which evolves by remembering past legal decisions and building upon them and another is language which evolves by remembering its vocabulary and adding new words and constructions. [Beckner et al. (2009)](https://doi.org/10.1111/j.1467-9922.2009.00533.x) provide authoritative evidence that language is a complex adaptive system. Since language is not material, they illustrate that a complex adaptive system need not be material, a fact central to my argument. In these non-biological examples, the components that self-organize are not chemicals, nor are their interactions physically or chemically based. They are based, respectively, on economic, legal and linguistic macrolaws.

A therapy group is also a non-biological complex adaptive system. To the degree that it functions well, it comes alive and closer relationships emerge spontaneously between individuals who talk to each other in the presence of other group members, all of whom may change as a result. The group remembers what has happened, especially a new development, and builds upon it.

From the unscripted social interactions of ten individual personalities, spontaneous growth and healing emerges, in part because the members’ nuclear-family-engendered neuroses and narcissistic defenses are not supported. To the degree thatthe group is healthy, functional attitudes like courage, honesty, humor, sensitivity, and relatedness are supported because they generate new life while dysfunctional attitudes like excessive selfishness, withholding or defensiveness are not supported because they are not generative. The group functions mostly as though it were a constructive extended family meeting at the dinner table. Caring is mostly abundant, vulnerability is welcomed and conflicts are at least somewhat resolved through transparent conversations.

Each person includes body-and-brain interacting with environment and each person interacts with all the others, hearing and changing their narratives of themselves and of each other, tending towards consciousness because interactions are verbal. Cavarero (2000, p. 20) rephrases Arendt and Nancy to describe the effect of this plurality:

Human beings … have the privilege of appearing to one another, distinguishing *themselves* in their inborn [in-nata] uniqueness, such that, in this reciprocal exhibition, a *who* is shown to appear, entirely as it is … Existing consists in disclosing oneself within a scene of plurality where everyone, by appearing to one another, is shown to be unique… Starting from birth … each of us is *who* appears to others, uniquely and distinctly.

I argue (below) that, by hearing from others the narration of your own *who,* you become phenomenally conscious of yourself. The group recreates a more whole mother who sees the whole of her infant. The group thus gives you a second chance, in the context of adult relationships, to consciously experience being your whole self.

Each week the conversations are a surprise: new unpredictable interactions emerge spontaneously. A constructive change in the group may catalyze a similar constructive change in a member’s outside life that is then reported back to the group. A group does not have a single center of awareness (it cannot speak as an ‘I’) but it does have its own identity. I have run two groups on the same principles for many years and each functions somewhat differently, in part because each has different members and in part because each emerged through its own history. A group is like a theater performance, or a ‘happening,’ a cooperative performance that will be different every time. It only exists for ninety minutes each week because, between meetings, the group vanishes though its members continue, each by themself, to react to their memory of it. Each group will vanish permanently when we end the group (death) but will persist in memory. Each is an objective reality, not an illusion.

The above shows that a therapy group, like an insect colony, is a surprising new level of non-biological complexity that emerges by self-organization, has a life of its own, and may have a profound effect on its component dynamic systems. Like a colony, a group is *not* based on physical (chemical) processing but on social and psychological processing. Thus we continue to develop evidence that not all human complexity is based upon the microlaws of physical (chemical) processing.⁠ A group still depends upon neuronal firing and aerobic respiration but these happen at earlier levels of complexity. A group happens at its own level of complexity, controlled by its own macrolaws. At the level of mitochondria — the site of aerobic respiration — the group is nowhere to be found.

**A wayward leap**

In the biological hierarchy each new level of complexity constitutes a dramatic discovery. The new level is not a logical derivative of the previous level, not a new iPhone that is more powerful than the previous iPhone. In biology the new level goes elsewhere. A mitochondrion in a eukaryotic cell, for example, has its own chromosome and ribosomes and began as a prokaryotic intracellular symbiont. Multicellularity in eukaryotes discovers the individual at a new level. An ant colony is based on eusocial interactions while earlier levels were based on chemical interactions. A therapy group is based on social interactions. An ecosystem discovers complexity on a geographic scale.

As it evolves, a complex adaptive system leaps from level to level in surprising directions (Holland 1992, p 20). This is not merely speculation or theory but is proven both by the fossil record and by the observation of existing life forms. There is no reason, therefore, to expect that conscious experience can be explained in terms of neural complexity: it is more probable that it reflects a wayward leap into a new level of complexity.

With the above understanding of biological complexity, we can now discuss the emergence of conscious experience. Here we move from biology to psychology.

**Psychological components, narrative, and personality**

A psychotherapist may not agree that consciousness is the defining manifestation of human psychology. A psychotherapist works with the whole of a person’s psychology, understanding that consciousness includes different territory in different people: you may be more conscious of your thoughts and less conscious of your feelings, while another person may be the opposite. Also, consciousness changes as you mature. A psychotherapist might argue that your whole *personality* (including consciousness) better represents your psychology made manifest.

Carver and Scheier (2000) defined the personality as ‘a dynamic organization, inside the person, of *psychophysical* systems that create a person’s characteristic patterns of behavior, thoughts, and feelings.’ Psychoanalysts understand the personality to be a dynamic system of *psychological* components (Stolorow 1997, Beebe et al. 1997, Beebe & Lachmann 1998). Here I define ⁠ personality as a dynamic system of psychological components, for example feelings, thoughts, memories, images, ideals and narratives, both conscious and unconscious, both internal and interpersonal.[[3]](#footnote-3)

Each psychological component is itself a dynamic system in the sense that it only lives while energy flows through it: a memory only lives while you recreate it; an image while you perceive it or imagine it; grief while you grieve; a thought while you think it. A thought recorded is not a live thought but rather a record of a past happening that might happen again if another mind takes it up. When several psychological components interact according to simple rules while the environment provides simple constraints, there emerges a yet higher-order dynamic system that is *narrative,* sometimes verbal but often a story told in images: ‘I see you. Your face is familiar to me. It reminds me of your dancing.’ Like its psychological components, a narrative is alive and transient. It does not happen as a record written on the pages of a book, only while it is being read or told. In turn, when stories interact according to simple rules while the environment provides simple constraints, there emerges the yet-again-higher-order complex adaptive system that is personality.

The transition from body-brain-and-environment to a psychological component (feeling, thought, image, ideal) is a wayward leap from the biological, material realm towards a realm that is not material. Music provides an image for this transition. If the body-brain-environment is like a piano being played then a thought or a feeling is ethereal, like a musical note.[[4]](#footnote-4) A psychological component is a dynamic system that requires a flow of energy but it is less material. A narrative or a play or a language ([Beckner et. al. 2009](https://doi.org/10.1111/j.1467-9922.2009.00533.x)) or philosophy or mathematics, are all dynamic systems that are not material. This transition from material to non-material dynamic system is central to my proposal because it traces how phenomenal consciousness, which is non-material, emerges from a material system of biological cells and their environment.

The transition to the next level of complexity, narrative, is another leap. In this transition, psychological components interact spontaneously with each other, not at the level of neurons, but rather at the level of narrative. A novel, likewise, does not self-organize at the level of alphabet and ink but rather at the level of the author’s reverie.

While the above has been theoretical, in the next section I discuss concrete evidence for the transition from body-and-brain to one specific narrative.

**Evidence for the leap from body-and-brain to narrative**

[McDowell (2010,](https://philpapers.org/rec/MCDADC) pp. 15-25) described this evidence in detail for one of the elemental transitions that begins personality development. Since this transition occurs very early, it is relatively simple and clear. The following five points summarize his description:

1. Humans are the most social of animals and have evolved many physical attributes and behaviors to facilitate social interaction.

2. Psychoanalysts observe that personality emerges mostly through interactions with other people⁠, first in the infant-mother interaction.

3. The appearance of a primate’s eye has evolved towards a more vivid visual contrast between colored iris and white sclera, which contrast provides a better signal of gaze direction. In parallel with this change, the eye’s psychological function has evolved towards enabling *intersubjectivity* (humans’ ability to bond by sharing their subjectivity).

4. An undistracted nursing mother looks at her newborn 70% of the time and, during that time, the geometry peculiar to humanbreast feeding ensures that the mother’s and the newborn’s faces are about 10 inches apart which, not by chance, is the only distance at which a newborn’s eyes can focus. High-contrast, brightly colored edges (between iris and sclera) predominate in the visual appearance of the mother’s eyes while the newborn, not yet able to see whole images, preferentially focuses on and follows sharp moving edges, *especially moving edges that, like those in the mother’s eyes, follow the newborn’s movements*. Together, all these factors are biologically pre-set to ensure that a human newborn will focus on its mother’s eyes. This is not true for other animals.

5. Consequently, the human newborn-mother pair will establish, at about six weeks, a bond of conscious intersubjective eye-contact in which each communicates to the other: ‘I know that you see me and I know that you know that I see you.’ Conscious intersubjective eye-contact excites and delights them both and further stimulates an array of joyful eye-and-face games. From these games (in conjunction with similar non-eye-contact games) emerges an enduring intersubjective bond between infant and mother. The forgoing ‘socially pleasant sensory experiences’ cause permanent changes in the infant’s oxytocin and vasopressin levels and the altered levels of these two hormones, in turn, enhance the child’s future bonding behavior, thus beginning a self-reinforcing cycle of relatedness.

In popular language, mother and infant ‘feel seen’ by each other. Their delighted reaction shows how much each *desires* to feel seen by the other. Cavarero (2000 p. 37) says that Ulysses, incognito in the court of the Phaecians, weeps because ‘he is surprised by his *desire* to hear it [his own story] told by another … this tale is desired – but above all, the unity, in the form of a narrative, which the tale confers to identity.’ When mother and infant each feel seen, they well up with feeling like Ulysses. Ideally, the mother is telling her infant (non-verbally) some version of the following story⁠:

‘I see you with affection and delight; I understand you; I will feed you, sooth you, keep you safe, and frustrate you only to a degree that you can tolerate.’

The infant, meanwhile, is internalizing that narrative to create its own narrative, a dawning sense-of-self:

‘I am delightful, lovable, and secure; my aggression is not dangerous; I can express whatever I feel: you will understand me and respond with affection and empathy.’

The two are beginning a warm, bonded *intersubjective experience that organizes itself through the narratives they share with each other.* However, the infant-mother experience is often less than ideal and, in that case, the infant may begin to develop a more conflicted sense-of-self.

The above shows how simple biological factors not only support bonding between newborn and mother but also enable bonding narratives to self-organize. The discontinuity between body-and-brain and narrative is large but the way in which the former enables the emergence of the latter is already known, at least for this example.

**Evidence that personality emerges from narrative**

There are several lines of evidence.

**1. Psychotherapy**

A psychotherapist works with stories. Psychotherapy is based, in part, on *active listening* (listening that is attentive, receptive, and thoughtful) to the patient’s narrative, coupled with responses that are sensitive to the patient’s context*,* that are supportive, and that seek to integrate this narrative with previous ones, or suggest new ways of looking at the narrative, or possible new outcomes. The therapist seeks to be conscious of the therapist’s own narrative and to see how it may intersect or collide with the patient’s narrative. Not only in therapy but also in daily life, the personality grows when its narratives evolve.

**2. Our fascination with narrative**

Another line of evidence is our endless fascination with stories: camp-fire stories, horror stories, fairy stories, legends, myth, literature, song, poetry, theater, movies, gossip, reality TV, Tik-tok, twitter, facebook, you tube, instagram. Story telling is the central cultural activity of humans and always has been. No other animal does this. Narrative is more than entertainment: by engaging with it we cultivate personality. To relate to other people (and we are the most social of animals) is to share stories with them, either directly or by sharing activities.

If narrative is the stuff from which personality emerges then it makes sense that great literature is among the highest achievements of consciousness. The epics of Inanna, Gilgamesh and Odysseus are all vital narratives because they make the wisdom of the unconscious available to the wider personality. In so doing, they help maintain the personality homeostatically (see below).

**3. Dreams**

Another line of evidence is experimental. Every dynamic system is homeostatic and a complex dynamic system must be homeostatic, *independently, at each level in its hierarchy*. This is necessarily true because, without homeostasis specific to a particular level, that level could not have stabilized in the first place. If one level’s specific system of homeostasis fails, then that level disintegrates (sometimes taking other levels with it). For example, your organization at the level of body-and-brain cannot exist without your lungs, kidneys, pancreas, other glands, and temperature regulation systems that cooperate to maintain an internal steady state. From the above we can predict that, if the personality is a dynamic system *at the level of narrative*, then it will include homeostatic systems that operate specifically *through narrative.*

A dream is a narrative that emerges directly from the personality without interference from conscious prejudices. [McDowell, Roberts and McRoberts](https://philarchive.org/rec/MCDTDO-19) (submitted for publication, in revision) presented *reliably repeatable* *experiment evidence* that a dream compensates homeostatically for a personality’s one-sidedness. The dream that was the subject of that paper showed that a man who projected his vulnerability onto others needed to accept it in himself and return to his own creative work. Another dream showed that a young man’s [personality was overly influenced by his father’s](https://philpapers.org/rec/MCDTDO-13) unconscious injuries. Another showed that a young man who [had treated a female friend badly needed to resolve this with her](https://philpapers.org/rec/MCDTDO-18), though he dreaded to face his own behavior. One showed that a young woman who [was non-binary needed to come out.](https://philpapers.org/rec/MCDTDO-11) A woman who had been [bullied by men needed to embrace her own phallic potential](https://philpapers.org/rec/MCDTDO-17) to better defend her boundaries. A woman who had been raped as a child but had never spoken of it [needed to speak of her abuse in order to become more assertive](https://philpapers.org/rec/MCDTDO-12). A man [dominated by obsessive thoughts needed to transform](https://philpapers.org/rec/MCDTDO-15) his obsessive behavior. A woman who tended to be controlling [needed to embrace her own cat-like self who was free](https://philpapers.org/rec/MCDTDO-14) to do what she wanted.

4. **Visual art**

Elsewhere McDowell presented evidence that the most serious visual art embodies a structural ‘narrative’ that also functions homeostatically to develop and maintain personality [(McDowell 2006).](https://philpapers.org/rec/MCDPST-4)

The above four lines of evidence are independent of each other, but they each support the same argument, that personality emerges from, and is guided by, narrative.

**Evidence that narrative creates conscious experience**

I attended the same university as my brother who was two years older. Our paths did not usually cross but on one occasion, as I walked along a path toward a glass door, I saw that he was approaching the same door from an inside passageway. We both reached for the door at the same time but, when I opened the door, the passage was empty. I had mistaken for him my own reflection. Though I had the conscious experience of being about to meet my brother, my experience was not of the outside world but, instead, of the story I was telling myself.

One reason that a play or a movie, or indeed any narrative, appeals to you is that, for a couple of hours, you are liberated from the narrative that usually plays in your mind. You are plunged instead into experiencing the narrative of the actors, or perhaps the narrative of the scriptwriter or director or, more accurately, into the story of the world these people have chosen to tell. The experience conveyed by the movie displaces your everyday experience. Your *everyday experience,* therefore, is the story you are presently telling yourself, the movie you currently see unfolding before you, whether factually accurate or full of creative license. You have a big role in that narrative and watching the movie is ‘what it is like’ for you to have conscious experience.

To tell a story is to re-experience it. Not to tell it is to avoid experiencing it. To experience something in the first place is to tell yourself a story about it. If you don’t tell yourself the story then what happens is a meaningless blur of sensations, perhaps intense but not fully experienced.

You can perform an action without experiencing it consciously. If you leisurely ride a bicycle along a familiar, uncrowded route while preoccupied with other thoughts, you may find that you cannot remember the part of the route you have just completed because you did not *consciously experience* it. Your ‘mind was elsewhere,’ you were on ‘automatic pilot.’ You were not riding dangerously because you were alert, listening, watching, and sensing the surface without being conscious. Had anything required conscious attention, you would have become conscious of it. You did not experience the ride because you were not telling yourself the stream-of-consciousness story of it: “here I can see the river again; here the slope inclines but I don’t need to change gear, I can push harder; this runner is veering out to pass another, I’ll coast until he gets back in lane; now I’m in shade from these buildings; now the route veers east and the wind is behind me, I can change up a gear;” and so on.

To experience a person is to notice that the person is particular, neither that, nor that, but *this,* to notice what is special about the person, that is, to tell yourself a story about the person. Without the narrative, you don’t notice or experience the person. Cavarero (2000 p xvi) says: ‘each of us knows that who we meet always has a unique story. And this is true even if we meet them for the first time without knowing their story at all.’ From the beginning of their life together, infant and mother experience each other intersubjectively (see above) by telling each other non-verbal stories of how they see each other.

An important part of psychotherapy (if you are not fully in touch with your feelings and many are not) is to help you to recognize what you are feeling, to help you experience it. Perhaps, if the feeling is anger, by walking, or kicking, or cursing and perhaps, if the feeling underneath the anger is hurt, by then reaching the hurt and experiencing that, and then grieving that you have been hurt so much and admitting that you were so vulnerable, so able to be hurt. All of this you can only experience as you admit to yourself the narrative: What was done to you? By whom? How did you feel then? How would you feel if you saw that being done to your friend? What new feeling is coming up now? The answer to all these questions is more narrative.

You do not fully experience an emotion until you have learned to identify it consciously, to name it. You may be angry and display it enough for others to see it but, at the same time, if you cannot yourself identify the anger and talk about it, that is, tell yourself a story about it, you will be unable to let it ‘run through your veins and out of your fingertips.’ When you hear a scary story ‘your blood runs cold.’

Destructive narratives from your childhood, of abuse, exploitation, betrayal or threat, for example, or narratives from adult trauma, can be confined to your unconscious where they negatively affect your conscious experience but cannot be softened or transformed by adult understanding. Your therapist’s work, in part, is to help you to bring these narratives into conscious experience. When you can hear them, share them, have them accepted and understood and perhaps reinterpreted, then, because they have become conscious experience, their destructive influence can be transformed.

Dissociation is a relatively primitive and therefor inaccessible defense in which you have no access to memories of a past event, or no access to important feelings. The foregoing indicates that what has dissociated is your narrative.

How you experience a setting depends on the story you are telling yourself about it (the narrative you are listening to). If you are on the beach because it is part of a much-desired vacation then your narrative may be of pleasure. If you are a migrant on the beach in Libya and you have no way to travel to Europe then your narrative may be of longing or frustration or despair.

The narrative need not be verbal. When you play with a dog by throwing a ball, part of the game is to tease the dog several times before you throw. You are telling two stories: ‘I am about to throw it,’ and, ‘I’m teasing you; I won’t throw it yet.’ The dog reads both narratives and sends the following narrative back ‘I’m ready, I’m ready, throw it already!’ The dog experiences that you are preparing to throw, or teasing it, only because you are telling it both those stories and you experience the dog’s readiness only because it is telling you that story.

Your narrative intrinsically manifests your subjectivity, perhaps by describing it explicitly or in metaphor or perhaps by your choice of objective subject. If you choose to talk to me about a baseball player and a baseball game, that tells me something about your inner world.

Here is a story told by a two-year old boy (Sutton-Smith 1978):

*The monkeys  
They went up sky  
They fall down  
Choo-choo train in the sky  
The train fall down in the sky  
I fell down in the sky  
I got on my boat and my legs hurt  
Daddy fall down in the sky.*

His narrative allows us to experience his inner life. Perhaps, as is characteristic of the ‘terrible twos’, his illusion of omnipotence is breaking down: ‘Mischief leads to a fall [from grandiosity]. I fall. It rocks me and hurts my pride [his standing]. Even my dad, who is like a dragon or thunder god, falls.’

In sum, from the above evidence, it seems that to have phenomenal experience is *to both show and observe (or tell and hear)* a story that conveys that experience. Cavavero (2000, p. 34) similarly explains phenomenal consciousness of the self:

Each one of us *lives him or herself* as his/her own story, without being able to distinguish the *I* who narrates it from the *self* who is narrated … a kind of *circular memory* which simply appears in perfect and total familiarity [her italics].

She quotes Lyotard:

The singular knowledge of being here [this *sense*] … derives only from the fact of remembering oneself.

**What is conscious experience for?**

Chalmers argues that a person could in theory be a zombie that functions like a human but has no inner life, that there is no obvious reason why we need an inner life. Nevertheless, conscious experience, the subjective awareness that an experience is being had while it is being had, seems to be shared with many different animals.

Just as all mammals and birds probably have conscious experience, so it seems that almost all mammals and at least some birds also dream (Pena-Guzman 2023 pp.15-60). If a dream is a story that emerges from your sleeping brain, and a conscious experience is the story you are telling yourself while you are awake then, in the course of evolution, both would confer the same selective advantage, the homeostasis of personality.

Personality is an extraordinarily complex adaptive system that, as I have explained (above), cannot be specified by genes. Beyond the help you may get from parenting and education, you must develop for yourself your own personality, just as a swift, held aloft in the wind and preparing for the first time to fly, must transform its personality to become a creature of the air: once it takes flight it will remain aloft, day and night, for several years (Macdonald 2020, pp 136, 138-9, 229-230). Hence, for humans, the value of adolescence and going away to college. Hence your need for play, sports, work, ethics, religion, art, reading, intimate relationships and continually talking with others. How well your personality develops determines how well you do everything else in your life, which means that developing your own personality is the most important thing you ever do. If conscious experience is homeostaticfor personalitythen it makes sense that you devote a significant proportion of your metabolic energy to generating conscious experience. Self-consciousness, in particular, allows you to observe your personality and make mid-course corrections if you wish. When you are tempted by envy, avarice, grandiosity, addiction and so forth (all manifestations of narcissistic injury), self-consciousness may protect you. At the entrance to the Temple of Apollo at Delphi, at least as early as the 5th Century BC, were inscribed the words “Know thyself” and “Nothing in excess.”

**Chimera**

The personality fulfills all the criteria by which a biologist defines life: it is a complex dynamic system that grows, responds, adapts, remembers, reproduces and evolves. Its energy is psychological (love, challenge, assertion, joy, creativity) rather than chemical. The personality, therefore, is a life-form radically different from body-and-brain. In a lichen three species, fungus, algae, and yeast, are symbiotic. Likewise in animals, body/brain and personality are symbiotic, each completely dependent upon the other. Together they constitute a chimera. Part of the work of therapy is to help these two life forms to relate.

Chimeras were depicted 40,000 years ago [see [Cook’s (2017)](https://www.youtube.com/watch?v=mJWUPBQpX1c) extraordinary video of the lion man] and are ubiquitous in myth. They thus represent a very old intuition about the human condition. This is interactionist duality.

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1. No three-dimensional form is genetically inherited. A gene is a linear sequence of four *bases*: A, T, G and C, which, when strung together, become a long strand of DNA. When the function of that gene is needed, its *base sequence*, grouped into triplets, is translated into a corresponding *amino-acid* *sequence*, a linear array of twenty-one different amino acids. If a substitution happens in the DNA sequence (e.g. one triplet AAA changes to GAA), then this *mutation* codes for a substitution in the corresponding amino-acid sequence. [↑](#footnote-ref-1)
2. The length of an amino-acid strand varies from about 50 to 33,423 for an outlier sequence that gives muscle its spring. A form emerges only as the amino-acid strand grows longer and, at the same time, spontaneously folds into a specific, tight, three-dimensional structure called a protein. This spontaneous folding is an example of self-organization. The amino-acid sequence is linear, while the final folded structure is subtle and complex.

   An amino acid is a small molecule made up of an invariant part, by which each amino acid bonds to the next, and a short side-chain of atoms, which is different in each of the twenty-one amino acids. A side-chain is either *hydrophilic* (attracted to water, as salt is) or *hydrophobic* (repulsed by water, like oil). The exact form into which a sequence of amino acids folds is a consequence of the different chemical elements (atoms) in the side-chains, the different sizes of the side-chains, and whether the side chains are hydrophilic or hydrophobic, which latter determines the force between each side-chain and the water that surrounds the protein (more accurately, the protein is surrounded by a dilute salt solution whose salinity, acidity, and temperature are critical). The protein spontaneously folds to ensure that each hydrophilic side chain is exposed to water, while each hydrophobic side-chain is folded inside, away from the water.

   This creates myriad opportunities for complexity because a single mutation in the DNA may replace a hydrophilic amino acid with one that is hydrophobic, or vice-versa. One such replacement may dramatically change the folding, creating a new protein with quite different properties that can evolve to serve a completely different function. But, while the sequence of amino acids *enables* an invariant folded form to emerge, the sequence is not a blueprint for this folding: the folding emerges by self-organization. A mutation, likewise, does not code for a new form but only *enables* a new path for self-organization. [↑](#footnote-ref-2)
3. My inclusive definition is compatible with most theories of personality, for example with trait, type, psychoanalytic, behaviorist, social cognitive, and humanistic theories. It also recognizes that psychological life is in large part interpersonal, that is, residing in the exchange between people as they relate to each other. [↑](#footnote-ref-3)
4. A musical tone is still a vibration of matter, though it *seems* ethereal. [↑](#footnote-ref-4)