

The Human Body is the Collective Unconscious: Archetypal Images as Innate Embodied Metaphors

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Abstract

For a significant part of its history, archetype theory has been undermined by criticisms containing unexamined Cartesian assumptions. Such assumptions treat all cognition as disembodied, consisting of mere manipulation of abstract, inherently meaningless signs mimicked from verbal instruction or cultural learning. Since the 1980s, due to the results of many independent disciplines, however, this view is being replaced with one of *embodied* cognition. This shift has important consequences for archetype theory, allowing us to provide a non-reductive biological anchor that explains many characteristics of the archetypal image.

Keywords: archetype, dualism, embodied cognition, metaphor theory, spontaneous thought

Psyche and body are not separate entities but one and the same life. (Jung, 1921, para. 115)

Introduction

The concept of the archetype developed from clinical material, with Jung noticing that his patients sometimes had dreams or fantasies which bore a striking resemblance to mythic narratives. This led him to propose that each of us has a shared psychological inheritance he termed “the collective unconscious”:

In addition to our immediate personal consciousness ... there exists a second psychic system of a collective, universal and impersonal nature which is identical in all

individuals and is inherited. It consists of pre-existent forms, the archetypes. (Jung, 1959a, para. 90)

Given that cross-cultural and spontaneous clinical imagery was so similar, but not identical, he proposed that archetypes could not be innate images. Instead he proposed that they were innate *processes* which structure and organize *similar* images:

Archetypes, so far as we can observe and experience them at all, manifest themselves only through their ability to organize images and ideas, and this is always an unconscious process which cannot be detected until afterwards. (Jung, 1960, para. 440)

Thus, inherited archetypes were proposed to use elements of one's memories and cultural expressions, break them down and reorganize them into novel *archetypal images* at crucial moments in one's life:

There are as many archetypes as there are typical situations in life. Endless repetition has engraved these experiences into our psychic constitution, not in the form of images filled with content, but at first only as *forms without content*, representing merely the possibility of a certain type of perception and action. When a situation occurs which corresponds to a given archetype, that archetype becomes activated ... (Jung, 1959a, para. 99)

Right from the beginning, Jung faced resistance to his archetype theory, and it has remained controversial. In his nuanced analysis, phenomenologist and psychotherapist Roger Brooke (1991) identified a large part of why, showing how early psychoanalysis and experimental psychology (among other disciplines) struggled with a historical legacy of *unexamined Cartesian assumptions*. This influential, centuries-old view of "science" originated from Galileo and assumed that mind and body were not merely distinct conceptually, but distinct *ontologically*. Under this paradigm, the mind is its own substance and is hence disembodied, full of "representations" of the inanimate "physical world of matter", part of which is the body itself.

Despite its persistence, Brooke correctly identified how inadequate this ontology is when compared with rich clinical data. The discovery of the *feeling-toned complex* (as exemplified by the now standardized Jung-Rilkin word association test) in particular "confronted [Freud and Jung] with the reality of a consciousness that is *embodied* and a body that has intentions of its own" (Brooke, 1991, p. 507, emphasis added). In other words, the psyche is embodied and the body is intrinsically psychological.

This finding rendered the Cartesian dualistic view incoherent. Jung himself seemed to sense this on some level, but he still slipped into Cartesian terminology sometimes. Nevertheless, he maintained throughout his career that psyche and soma were somehow *one*:

Psyche cannot be totally different from matter, for how otherwise could it move matter? And matter cannot be alien to psyche, for how else could matter produce psyche? Psyche and matter exist in one and the same world, and each partakes of the other, otherwise any reciprocal action would be impossible. If research could only advance far enough, therefore, we should arrive at an ultimate agreement between physical and psychological concepts. (Jung, 1959b, para. 413)

Unfortunately, neither he nor any of the other psychoanalysts of the early 20th century launched a formal discussion of how their work challenged the Cartesian *zeitgeist*. Instead, they soldiered on and Jung continued to develop archetype theory despite the objections.

Characteristics of the Archetypes

Before we see how that played out, it is important to understand how archetypes are supposed to work. Brooke sifts through Jung's work, seeking "a definition that does not beg theoretical questions" (2015, p. 143) by retaining the most consistent elements of his lifelong, at times diffuse writing on the subject. First and foremost, Jung saw that even though we have free thought, there are still "revelations" from the unconscious that appear to derive from more primordial dimensions of the psyche "triggered" by universally appearing situations in life (Brooke, 2015, 144-145). In other words, archetypal images are *spontaneously emergent* responses to life.

Jung further characterized these images as non-literal *symbolic* expressions, or "*condensed expression of the psychic situation as a whole*" (Jung, 1921, para. 745). Importantly, when Jung mentioned symbols, he had something special in mind, and *not* arbitrary, essentially meaningless signifiers. When Jung spoke of symbols, rather, he referred to them not as "representations" bouncing about in a Cartesian monad, but rather as "the presencing of a mystery in such a way that psychic life is integrated and the person is transformed" (Brooke, 2009, p. 609). Symbols, for Jung, were not allegories or arbitrary signs, but "the best possible expression for an unconscious content whose nature can only be guessed, because it is still unknown" (Jung, 1959a, para. 7). And since archetypal images were "triggered" by universally appearing situations in life (Brooke, 2015, pp. 144-145), they were best seen as *innately constrained symbolic expressions of one's current life situation*—the "current state of things" in images and affect, rather than language *per se*, arising from the psyche outside conscious will, unbidden. More on symbolism in archetypal images later.

Archetypal images are therefore not simply repeats of early experiences but expressions that *reorganize* memories, reflections and feelings into novel products in accordance to innately constrained structures: "Imagination gathers a world ... it also steadies the world through time, weaving the events

of our lives into narrative histories” (Brooke, 2013, p. 10). Nevertheless, at all points we are reminded that this process is *embodied*.

Jung attempted to link the archetypes to the body as a whole and not just the brain (Brooke, 2015, p. 146). Later in life he considered that structuring and ordering archetypes may underlie the universe itself (Goodwyn, 2022a), but he never quite separated himself from the idea that archetypal images were biologically ordered to a significant degree. Nevertheless, the tendency for Jung and his followers to push the envelope on an already challenging concept sometimes led to a muddying of the term, such that some authors have complained that nearly anything can be thought of as archetypal (Roesler, 2023b, pp. 37–70). Here I will focus on the above *clinical* definition, bracketing the metaphysical speculations for now.

Brooke identifies a key feature of the archetypal images important to Jung: that they are *spontaneous responses to species-typical situations* ordered by innate constraints. In Brooke’s terms, the archetypes “call into consciousness an image that clarifies one’s self and world at that time” (2015, p. 158). Archetypes are thus innate *organizational principles of perception and thought*, not “hypothetical entities that produce images” (Brooke, 2015, p. 154). Archetypal images are spontaneously emergent and emotional metaphors that reflect species-typical situations such as parent-child (Mother, Child), youth-mentor (*Senex/Puer*), long-term pair bonding (Anima/us), and so forth. As Jung puts it, the archetype is “a *condensed expression of the psychic situation as a whole*” (1921, p. 442, emphasis original).

The Fate of the Archetype

As mainstream psychology broke away from psychoanalysis, behaviourism became the dominant paradigm in psychology. This movement, which assumed that internal mental states were unverifiable and therefore unworthy of “rigorous” scientific inquiry, saw psychoanalysis in general become more insular. That led to the *intensification* of the disembodied Cartesian paradigm outside psychoanalysis. Archetypal images became the topic only among the faithful in analytical psychology, who defensively put up barriers against criticism from experimental psychology, for better or worse.

Behaviourism then gave way to classic cognitivism. Psychology, linguistics, artificial intelligence and cognitive science, inspired by growing computer technology, came to model cognition purely as a symbol manipulating process (Lakoff, 2012). Note that the “symbols” spoken of here were *signs* used in precisely the *opposite* way that Jung used the term. Here, “symbols” were abstract, inherently meaningless, arbitrary and disembodied. This Cartesian paradigm implicitly demanded that mental contents could only be acquired via verbal instruction or cultural observation or mimicry. Meanwhile, the

body continued to be disregarded as a potential source of any meaningful conscious contents.

Eventually the Cartesian dominance in mainstream psychology/cognitive science began to erode, beginning in the 1980s and 1990s from a number of independent areas. Evolutionary psychology (Buss, 2005) began to clash with the Standard Social Science Model and its disembodied characterization of the mind. Affective neuroscience (Alcaro & Carta, 2019; Panksepp 2004; Panksepp et al., 2017) slowly built a vast empirical basis for returning to an embodied view of the *emotions* as strongly innate cross-species and evolution-derived organizers of cognition and behaviour. Cognitive neuroscience endorsed an evolutionary and embodied view with its intense focus on the brain following the results of the new sciences of neuroimaging (Panksepp et al., 2017). Psychopharmacology exploded, again piercing the mind-body “barrier” within psychiatry. Philosophy itself began to see a rising interest in panpsychism and other non-dualistic ontologies, (Chalmers, 1997; see also Goodwyn, 2021). Somatic therapies (e.g., Goergen & Hernández, 2023; van der Kolk, 2015; Levine, 2010) recognized that the body had its own kind of intentionality, perception and mental capacity—just as we saw with the old feeling-toned complex experiments of the early psychoanalysts. Neuropsychanalysis and psycho-systems analysis, both based on Freudian and/or Jungian models integrated with neuroscience (Richards & Richards, 2023; Rossi, 2002; Solms, 2020), specifically reject dualism in their approach to mind and body. Nummenmaa et al. (2014) were able to link basic emotions with culturally universal sensory body maps, further strengthening the embodied view of cognition and emotion. Finally, perhaps the most devastating blow to the above disembodied view of mental contents came from the growing literature of *embodied cognition*, starting with Lakoff and Johnson’s famous 1980 book *Metaphors We Live By*—more on this later. For now, suffice it to say that the Cartesian view that mind and body are *ontologically* separate, rather than merely *conceptually* separate, has been fiercely challenged, even if it has not been clearly recognized as such within psychology.

So what happened within analytical psychology meanwhile? As Jungian thought has developed, the archetype has been subject to many analyses, variously influenced by the above historical movements. Some argued that the findings of newer disciplines *supported* the idea of the archetypes, equating them with instincts or evolutionary programmes (Stevens, 2003), biologically-oriented patterns of cognition and behavior (Haule, 2012), or action patterns in complex bio-systems (Hogenson, 2009). Others, however, argued that the findings of other disciplines either *refuted* the validity of the archetypes (Colman, 2016), or they required a radical revisioning of it, rendering it unrecognizable. Examples from these latter approaches equated archetypes with mathematical principles of organization (McDowell, 2001), or the “image schema” of traditional cognitive science (Knox, 2003). Still

others reject the biological formation entirely, claiming archetypal images are entirely culturally constructed (Roesler, 2023b—more on this view later).

I do not believe this controversy needs to continue. I think all we need is to formulate a unified theory of archetype with an emphasis on *embodiment*. In the present essay, I will attempt to show that the classic qualities of archetypal images can be integrated naturally with the findings in a number of newer, independent fields of inquiry with this key ingredient.

Do Archetypes “Exist”?

Thus far, the foregoing analysis reveals that archetypal images appear definable as:

- 1 spontaneously emergent expressions of the imagination;
- 2 emergent in response to or in anticipation of important species-typical environmental situations;
- 3 affectively charged *symbolic expressions* that have an *ineffable core* of meaning (more on these later);
- 4 quintessentially *embodied* expressions with innate, universal structures, from which *archetypal images* arise.

Notice that when viewed with Cartesian assumptions, archetypes are defined out of existence because mental contents can only come from instruction or cultural observation, and one can always say, “We just learned it.” But this is the fault of the ontological assumptions, *not* the concept itself. Once the Cartesian assumptions are discarded for a more holistic and embodied paradigm, however, it becomes evident that an archetypal image is not something which can be “found”, but rather is a phenomenological *description* of a particular sort of lived *experience*. Thus, the question is not so much a reifying “does it exist?” but rather, are there any experiences that meet the above criteria? Do at least *some* of our spontaneous thoughts qualify as innately constrained symbolic embodiments of species-typical situations?

Spontaneous Thought, Including Dream Content

Since archetypal images are defined not as willfully directed, free creations of the ego, but as contents emerging spontaneously from the unconscious, we must start our journey by exploring the burgeoning literature on *spontaneous thought*—the study of mental contents that emerge unbidden into our awareness. Such contents would psychoanalytically be seen as originating from the unconscious. Supporting this analogy is the fact that researchers on spontaneous thought differentiate between willfully directed or volitional

thought on one hand, and spontaneous thought on the other (e.g., the way Colman does, 2006).

It has long been held in analytical psychology that spontaneous thoughts are not random but reveal depths of intentionality. Experimental psychology of spontaneous thought, which incorporates neuroscience, phenomenology and many other disciplines, reveals this finding as well. This literature finds spontaneous thought to be non-random, purposeful, organized and often highly functional. Moreover, it appears to have:

... considerable benefit for our day-to-day functioning and general contentment—affording sense-making and the ordering of recent events, anticipations of and projections into the future, and a starting point for some of our creative ideas. (Stan & Christoff, 2018, p. 487; see also Klinger & Cox, 1987, 2011)

Spontaneous thoughts are moreover not merely chimerical wish-fulfillments. Rather, they are focused on emotionally salient personal concerns, and involve memory consolidation and future planning, most of which are directed at sorting out current concerns (Klinger, 2009). Though spontaneous thought can be associated with dysfunctional processes such as rumination, it has been identified as subserving many functional processes such as facilitating semantic knowledge consolidation (similar to dreaming), and pattern recognition (Mills et al., 2018).

Research on this subject has expanded tremendously in the past decade. In fact, some researchers have labelled the modern era of neuroscience the “era of the wandering mind” (Callard et al., 2013). Roughly one-third to one-half of thought is spontaneous (Klinger & Cox, 1987), and this doesn’t include the particular kind of spontaneous thought represented by dream content. Unsurprisingly, dreaming has been classified as a *type* of spontaneous thought (Domhoff, 2018; Fox & Christoff, 2018) that shares significant overlap with waking spontaneous thought. Like waking spontaneous thought, dreams are biased toward personal, affectively salient concerns (see below). The overlap can also be observed in neuroscience data, for the same regions involved in spontaneous thought are recruited (albeit more intensely) during REM dreaming (Fox et al., 2013; see also Christoff et al., 2016).

Analyzing dreams is traditional in psychoanalysis; however, there has been disagreement about whether or not such content is largely occupied with *disguising* deeper thoughts (Freud, 1900), or largely *revelatory* of deeper processes. Jung proposed the latter, describing dream contents as a “spontaneous self-portrayal, in symbolic form, of the actual situation in the unconscious” (1960, para. 505). Similarly, Bion proposed that dreams transform unprocessed primary experiences into workable thoughts, memories and mental growth (Bion, 1962; see also Kohut, 1977). Both of these early psychoanalysts proposed that this process occurs in both waking

and sleeping states. By contrast, Freud (1900) argued that dreams *disguised* inner realities rather than revealing them.

In a recent review article by Roesler (2023a), however, a large body of empirical literature on dreaming is reviewed and found that Freud's idea that dreams disguise meaning has not aged well. Rather, the balance of empirical literature on dreams shows that they have a strong tendency for *meaning creation*, which can be observed in the manifest dream content, providing one recognizes the *symbolic* nature of such content.

Dream researchers Kramer and Glucksman (2015), for example, showed how multiple dreams in a single person continually work and rework major *emotional* themes, even to the point that independent evaluators could identify immediate and long-term emotional issues just from dream content. Notably, Roesler states in his review (2023a, p. 314):

This reworking of memory contents in the dream is therefore a highly structured, rule-governed and goal-directed reworking process that operates largely unconsciously, extensively coordinates various domains of mental functioning, but can also only take place while there is no new mental input of the kind that occurs in the waking state. (Roesler, 2023a, p. 314)

Stan and Christoff (2018) argue that the numerous meaning-making benefits of spontaneous thought might justify changing the term “mind-wandering” to “mind-ordering”, given its functions. Moreover, growing evidence points to spontaneous thoughts being critical in the construction of *personal identity and meaning*, suggesting a role in “reflecting on the broader meaning and implications of personal experiences, thereby contributing to the construction, maintenance, and update of an individual's life story” (D'Argembeau, 2018, p. 187). Still other experimental psychologists identify the *identity-consolidating function* of dreaming (Fiss, 1995; Kohut, 1977; Stolorow, 1978). Kliner et al. (2018) in their review conclude that spontaneous thoughts are involved with goal tracking, planning, creative problem solving, reviewing past experience, memory consolidation, and aligning oneself with goal-attainment, but when in excess can lead to rumination, excessive daydreaming and dissociation.

It is therefore evident that spontaneous, affect-charged symbolic expressions of one's current or near-future life situation are actually abundant. We are almost ready to see if any of them qualify as *archetypal*. This final criterion requires that archetypal images should be only those which have been assembled in accordance with *universal biological principles of organization*. They should be images anyone from any culture could express, given the right generic species-typical situation. They should not depend on cultural observation, mimicry or verbal instruction, if they are to qualify.

Embodied Cognition

This final, biological dimension can be found in many newer fields (particularly affective neuroscience and evolutionary psychology—see Goodwyn, 2012, 2022b), but most relevant here is the study of *embodied cognition*. Recall that the Cartesian paradigm began to erode in the mid-1970s. Rather than view all cognition as disembodied sign manipulations, cognitive linguists challenged the classic paradigm. They did so using a number of crucial observations of real-world, everyday language (reviewed in Lakoff, 2012; see also Lakoff & Johnson, 1980, 1999 and Khatin-Zadeh et al., 2023), for example, the way basic level categories and spatial relations across many languages require universal primitives that reference the human body (Langacker, 2008).

The literature of embodied cognition and cognitive linguistics shows that much of our thought can be described not in meaningless abstract and arbitrary signs but in terms of *embodied metaphors*, which are:

... frame-to-frame mappings across conceptual domains ... linguistic metaphors are surface reflections of those conceptual mappings ... from correlations between co-occurring embodied experiences; for example, Happy Is Up, Sad Is Down; More Is Up, Less Is Down; Affection Is Warmth. (Lakoff, 2012, p. 776)

These metaphors map abstract or difficult to describe/comprehend domains onto embodied visuospatial domains that are easy to comprehend, like the LOVE IS A JOURNEY mapping (Lakoff & Johnson, 1999, capitalization by convention). Complex conceptual metaphors are composed of primary metaphors, which do not further decompose. Most relevant for our purposes, a subset of these primary metaphors are deeply embodied, occur cross-culturally, and arise from *physical correlates* of emotion, like when anger is described as a hot liquid (“boiling over with anger”, “letting off steam”, etc.). In other words, some primary metaphors are reliably and cross-culturally emergent due to universal human physiology. More examples of these kind of primary metaphors are:

UNDERSTANDING IS SEEING: “I can’t understand his *point of view*”, “that argument is *murky*”, “his thought is very *clear*”.

HAPPY IS UP: “flying *high* with good feelings”, “on *cloud nine*”.

SAD IS DOWN: “feeling *down* in the dumps”, “I’m *depressed* today”.

CONCEPTUAL HARMONY IS PHYSICAL BALANCE: “These ideas don’t work because they are *unbalanced*”.

ATTACHMENT LOSS IS COLD: “he gave me the *cold* shoulder”, “she left me out in the *cold*”.

Cognitive linguists argue that “conceptual knowledge is embodied, that is, it is mapped within our sensory-motor system [which] characterizes the semantic content of concepts in terms of the way that we function with our bodies in

the world.... Abstract reasoning in general *exploits* the sensory-motor system.” (Gallese & Lakoff, 2005, pp. 456–473)

There is significant empirical support for embodied metaphor theory, coming from action-sentence compatibility studies, eye-tracking studies, hand-prime studies, gesture-in-learning studies and neuroimaging studies on sensorimotor activation during metaphor processing and mental imagery processing (Khatin-Zadeh et al., 2023). Even abstract, complex metaphors are compositions of simpler metaphors, called *primary metaphors*. Primary metaphors are mappings of ideas onto embodied visuo-spatial and kinaesthetic body-movements. Take the ANGER IS HEAT metaphor, for example. The source of this concept is the human body itself and its physiological responses to the emotion of anger (Khatin-Zadeh et al., 2023, p. 8). Other primary metaphors use kinaesthetic sense (UNDERSTANDING IS GRASPING, i.e., “I can’t *grasp* this subject”, or CONTROLLING IS GRASPING “you need to get a *grip* on this situation”), which is naturally embodied. Such grasping metaphors would make no sense to a whale or a rhinoceros, but make perfect sense for handy primates like *Homo sapiens*.

The Symbolic Dimension of the Archetypal Image and Embodied Cognition

Recall that archetypal images are supposed to be *symbolic*, and in the synthetic way Jung imagined, *not* the outdated, disembodied way found in classic cognitive science. I think this dimension in particular has caused a great deal of difficulty for theorists. Note how Jung and other commenters describe archetypes as defying “final analysis”—i.e., such as when Hillman identifies archetypal images as operationally unknowable, containing limitless mystery, power and capability for being endlessly articulated verbally (Hillman, 1977). Jung spoke often of the manner in which archetypal images contained something ineffable about them. Elsewhere Brooke reflects that “archetypes seem mysterious, deep, remote, frightening and enchanting, and thinking about them remains equally murky and ambivalent” (2015, p. 161).

Such florid descriptions risk making the archetype an arcane concept, only for the initiated to comprehend. One can see why Jung was accused of “mysticism”. But this need not be so. Archetypal images *symbolize* experiences difficult to verbalize, but the map is not the territory. The archetypal image itself should not be murky and impenetrable, only what it symbolizes! In other words, no matter how mysterious is the moon, I can still point at it with a humble finger.

Conceptual embodied metaphor theory is helpful: all metaphors have an *ineffable core of meaning* which cannot be expressed except via other metaphors (Lakoff & Johnson, 1999; Minervino et al., 2018; Kövecses, 2016). This applies not just to fancy expressions of deep mystery (such as poetry, or

the Mandala) but also to more prosaic ones like DANGER IS DARKNESS as is seen in the evocative imagery of “the dark forest” found in so many fairy tales. “Danger”, after all, cannot ever literally be “darkness”, and yet the metaphor is powerful and viscerally resonant for poor humans with lousy night vision.

Hence archetypal images are best seen as *special sorts of spontaneous metaphors*, an idea phenomenology agrees with (Brooke, 2015, p. 148). Therefore, the above mystery of the archetypal image is more due to their status as *metaphors* in general, rather than any obscure, impenetrable or unknowable features.

The Biological Dimension

Now for our final criterion—the innate and biological dimension of the archetypal image. As we have seen, the psyche is continually producing spontaneous thoughts. Some of these will be affectively charged symbolic expressions of our life situation (especially when we are dreaming). But only some of these will qualify as *archetypal images*. The final criteria requires that a given symbolic image/narrative have a primarily *innate* origin, if we are to argue that it comes from “the collective unconscious”. Combining the foregoing, then, we can say that an archetypal image is a complex, affect-charged metaphor of one’s current life situation that is mainly composed of primary metaphors derived from universal human biology.

If we were to ascribe to the disembodied Cartesian paradigm discussed above, of course, *none* of such contents could ever qualify as archetypal images, because all mental contents can only come from verbal instruction and/or cultural observation. Disembodied minds cannot acquire any useful structure or contents from the mindless mechanisms of the body, after all. I believe this confusion persists into contemporary scholarship, as evidenced by Brooke’s quote:

A still-unresolved problem, however, is how Jung can refer on one hand to the archetypes as the cores of meaning within an image or cluster of images, and on the other hand as the species-specific potentialities that structure behaviour and experience. (Brooke 2015, p. 152)

Given the trouble caused by Cartesian assumptions, is it any wonder that Jung’s concept has received so much resistance during the century since he introduced the term?

Nevertheless, the archetype *absolutely requires* a biological dimension, or it becomes a superfluous concept, disposable via Ockham’s Razor. In Brooke’s terms, “The cultural-historical dimensions of the archetype require a theoretical anchor” (Brooke, 2015, p. 149), by which he means a link to our concrete embodiedness as human beings:

Child, mother, father, eternal youth, hero, marriage, and sacrifice are fundamental human occurrences that would not be possible for a being born with the genetics of a shark. (Brooke, 2015, p. 151)

We can only achieve this if we accept the inherent *embodiedness* of cognition. Thus, what follows will attempt to provide a non-reductive biological anchor that not only explains a great deal about the characteristics of the archetypal image, but has other advantages, as we will see.

The Archetype Integrated with Modern Embodied Theory

The recognition that cognition is deeply embodied means that any of the *spontaneous, affectively charged complex metaphors of our life situation* will qualify as archetypal images only if they *are composed predominantly of innate primary metaphors*. That's it. All that remains is to determine which primary metaphors are derived solely from our embodiedness as human beings-in-the-world, and which are derived from local cultural elaborations, as everyone will naturally acquire both. If no primary metaphors qualify in the former sense, then archetypal images do not exist. In previous work, I have proposed a number of innate primary metaphors I will call "innate mappings"¹. These include (borrowing and elaborating from Lakoff & Johnson 1999; see also Goodwyn, 2012, 2022):

- 1 KNOWLEDGE/SAFETY/HAPPINESS IS LIGHT (which also implies UNMANIFEST/DANGER/SADNESS IS DARKNESS)
- 2 POWER/HAPPINESS IS UP (which implies WEAKNESS/SADNESS IS DOWN)
- 3 CONCEPTUAL HARMONY IS SYMMETRY/BALANCE
- 4 AFFECTION/ENJOYMENT/LIFE IS WARMTH
- 5 ANGER/PASSION/LUST IS HEAT/HOT LIQUID
- 6 COMPLEX PROCESS IS A CONSCIOUS BEING (i.e., personification)
- 7 EMOTIONS ARE FACIAL EXPRESSIONS
- 8 UNDERSTANDING IS GRASPING
- 9 WILLING IS MANIPULATING WITH THE HANDS
- 10 EMOTIONAL SEPARATION IS COLD

This is not an exhaustive list, but hopefully the gist of the idea is evident. These mappings arise not from cultural observation or verbal instruction but by virtue

¹ In previous work I called these "archetypal elements", but to avoid confusion I am updating my terminology.

of having human bodies operating in species-typical, but non-specific environments (i.e., planet Earth in general)².

But How Much Does Biology *Really* Contribute to Innate Mappings?

In his book *Deconstructing Archetype Theory: A Critical Analysis of Jungian Ideas*, Christian Roesler criticizes the idea that my innate mappings are biological in origin, stating that they “can come about reliably through experience in the life of humans ... there is no need to assume any biologically preformed pattern of association” (2023b, p. 88). The problem with this critique is that it only demonstrates that instruction, observation, or mimicry are *sufficient* to produce innate mappings. It does not, however, prove such processes are *necessary*. In other words, we haven’t ruled out innate organization that would have produced them anyway.

Given that humans raised outside *any* sort of culture do not exist, proving innate/biological necessity is challenging. Any innate mappings will naturally be part of the cultural lexicon, in which case one can always say, “We just learned it,” and be none the wiser. Nevertheless, Roesler argues that principles of neuroscience and genetics rule out a necessary biological contribution to cognition in general. For example, he refers to a comment by Panksepp and Solms in Panksepp et al., (2017) that, for various reasons too complex to get into here, the neocortex appears to be a “*tabula rasa* ... almost everything in the neocortex is apparently programmed by extra-cortical inputs” (p. 191). Hence there can be no room for a biological contribution to innate mappings. Setting aside the issue that the *tabula rasa* idea is no longer an accurate view of the cortex (Rakic, 2008), the problem is that later in the same essay, the other contributors to this debate-article rebut Solms and Panksepp’s statement: “While the cortex is clearly a highly plastic organ ... [it] remains plausible that the cortex has sufficient heritable structure to contribute to innate/unconditioned emotional responses” (Panksepp et al., 2017, p. 202) rendering this point as rather contested. In any case, Solms now sides more with the latter position anyway, saying that “plastic v innate” is a false dichotomy—i.e., the well-known plasticity of the neocortex does not rule out innate organization (Solms, September 19, 2023, personal communication).

Moreover, since the 1980s, studies on individuals born blind have demonstrated a formidable array of innate organization in the case of visuospatial cognition. A significant body of literature shows that such

² I think it is likely that many of these would arise in humans raised in space or other planets. Nevertheless, since no human has been raised off Earth, this hypothesis must remain speculative.

persons are highly capable of visuospatial processing, and with equal skill to sighted subjects, leading reviewers to conclude that visual experience is likely not necessary to be able to produce visual imagery and engage in visuospatial cognition (Kaski, 2002). More recent work (Ilic et al., 2023) continues to support that “mental representation of images may not be entirely dependent on visual input” (2023, p. 2). Dream researchers Bértolo et al. (2017) concluded based on EEG measurements on dreaming congenitally blind individuals that such persons “are able to generate visual imagery without visual experience” (2017, p. 8). Before such studies, one would always be tempted to say, “They just learned it,” because our innate organization tends to be overshadowed by our extensive learning capacities.

For kinaesthetic sense (i.e., grasping or balancing), consider that the sense of one’s limbs does not require those limbs to *actually exist*, as persons born without limbs still dream of having them and can have “phantom limb” sensations from them. Researchers in this phenomenon speculate that the genome produces an “abstract, genetically hardwired blueprint of the body” (Mulder et al., 2008, p. 1269) tentatively termed the “neuromatrix” (Melzack et al., 1997, p. 1619) or “innate body scheme” (Voss et al., 2011).

These show that significant innate organization of visuospatial and kinaesthetic cognition is very plausible, and not easily dismissible with “we just learned it” types of explanations. Nevertheless, we still need to demonstrate that this organization applies to visuospatial or kinaesthetic *metaphors* in such individuals. In fact, direct empirical research in persons born blind demonstrates that *visuospatial metaphors* indeed arise reliably, despite the lack of visual experience (Minervino et al., 2018). Moreover, visuospatial metaphors also arise in spontaneous gestures and signs in *signed* languages (Cienki & Müller, 2008). These results suggest innate cross-modal predispositions that can function on minimal input.

Nevertheless, one could still argue, in the manner that Roesler does, that such mappings arise in persons born blind solely via the *verbal instruction* from sighted persons, despite the lack of shared visuospatial referents. To rule that possibility out, such individuals were presented with very *novel* visuospatial metaphors (e.g., “he ascribes to a photoshopped version of reality”, etc.) to see if they had any difficulty discerning their meaning. The subjects still had no trouble understanding them. This and other data led Minervino et al. to conclude: “To a great extent, conceptual metaphors are universal knowledge structures that are associated to the structure of our body and of our exchanges with the world. As such, they impose strong constraints on the space of possible innovations in metaphoric production” (2018, p. 7). Thus, even though we could “just learn” these mappings, it does not appear that we particularly *need* to. They are likely inevitable results of our universal human body and physiology.

A Specific Example

Let us focus on a particular innate mapping for clarity: ANGER IS HEAT. In English, there are many common sayings that utilize this primary mapping, such as “hot under the collar”, “a real *hothead*”, “*boiling* over with anger”, etc. I argue that this mapping is innate because when we feel anger, our temperature increases along with rising blood pressure (see Goodwyn, 2022b). Skin flushing from anger gives the sensation of hotness by virtue of our human physiology. We do not need verbal instruction or observation; we are biologically predisposed not only to make this association, but to understand it on a visceral level. If the human body did not have the above physiological responses, this mapping would not make sense or naturally arise in *Homo sapiens*.

If, however, universal physiology/predispositions are not necessary to form this mapping, then it is likely just idiosyncratic to English and it should not be found with great regularity in other languages. Without any biological constraints or organization, one could form any sort of arbitrary mapping imaginable for anger without dissonance. Thus, cross-cultural study of conceptual metaphors can falsify the hypothesis that this mapping is innate.

As it turns out, ANGER IS HEAT occurs in English, Chinese, Japanese, Hungarian, Tahitian, Chickasaw, and Wolof (Kövecses, 2007, pp. 156–163). Kövecses reviews many other cross-cultural examples like this and concludes that:

My view is that, given the universal real physiology, members of different cultures cannot conceptualize their emotions in a way that *contradicts* universal physiology ... [though] they can choose to conceptualize their emotions in many different ways *within the constraints* imposed on them by universal physiology. (2007, p. 165, emphasis original)

Elsewhere he states that “feeling states have an irreducible and probably universal psychobiological basis that accounts for many similarities in the conceptualization of emotions” (Kövecses, 2007, p. 187).

Thus, Roesler’s critique does not rule out the necessity of universal physiology. Rather, the above data suggests that universal physiology is *both necessary and sufficient* for the formation of innate mappings. The fact that we could *also* acquire them via verbal instruction is simply redundant—an example of overdetermination. Nevertheless, the fact that such mappings still appear to require some basic experiences (like “up” or “darkness”) still raises concern for Roesler: “it is not necessary to have a preformed category of above and below because there is no way of getting around the experience of gravity” (p. 89). The above blind studies seem to suggest we *do* pre-form categories like up/down, light/dark, etc., which self-organize *anyway*,

regardless of whether such preformation seems “necessary”. Nature does not appear to leave this to chance.

Nevertheless, this criticism misses the point anyway—the darkness is not as important as *the universal manner in which we react* to darkness—i.e., linking it to danger and the unknown, rather than safety or knowledge. Hence many children are afraid of the dark but hardly any are afraid of the *light*. It is our innate predisposition to respond in a particular way that is of interest. Innate mappings connect universal embodiedness with generic experiences *in a specific and innate way*. These connections are important for the formation of complex symbolic images.

Cultural Elaborations

None of this discounts the importance of culture, which can elaborate some innate mappings over others. For example, Zulu utilizes ANGER IS HUNGER (both universal situations) to organize many metaphorical sayings, whereas this mapping is not commonly found in English. That said, if someone said, “consuming the whole village with his anger”, an English speaker is very likely to understand it because both anger and hunger are universal. This does mean that for any given language, some mappings may only exist in potential. That said, no culture will use the *opposite* of the innate mappings—i.e., HAPPINESS IS DOWN, PRIDE IS SHRUNKEN POSTURE, CONCEPTUAL HARMONY IS LOPSIDEDNESS, CONTROLLING IS RELEASING ONE’S GRIP, etc.

Furthermore, many primary mappings are *entirely* cultural in origin and not innate at all. Chinese uses HAPPINESS IS FLOWERS IN THE HEART and Zulu uses ANGER IS GRINDING CORN (Kövecses, 2007, pp. 167–169) to organize many sayings in those languages. These are **non-innate**, unique cultural mappings, since flowers and corn do not derive *from the human body or its species-specific responses to generic environmental features* (the criteria for innateness). Both of these are derived from unique cultural traditions.

For innate mappings

Universal human physiology:	<i>both necessary and sufficient</i>
Cultural imitation or instruction:	<i>sufficient but not necessary</i>

For non-innate mappings

Universal human physiology:	<i>not necessary or sufficient</i>
Cultural imitation or instruction:	<i>both necessary and sufficient</i>

Both innate and non-innate mappings will combine in spontaneous thought, of course, to create all sorts of affective symbols. Only those which are composed mostly of innate mappings, however, should qualify as “archetypal”.

Conclusions

The only way to make sense of the archetypes and the archetypal images is to completely separate archetype theory from the disembodied Cartesian assumptions that have held it back. I have situated archetypal images in terms of a number of modern embodied disciplines, including cognitive and affective neuroscience, embodied cognition, spontaneous thought, and dream science. With the conceptual precision offered by phenomenology, we can now formulate archetypes with clarity.

My conclusion is that the archetypal image can be identified easily and clearly as *a spontaneous, affect-charged complex metaphor for one's current, species-typical life situation that is mainly composed of innate mappings*. One can even make the case that the archetypes themselves (not the images), as constraining organizing principles, *are the innate mappings*. Note this definition departs from Jung a bit. I do not follow Jung's somewhat tangled application of Kant's noumenon/phenomenon distinction for the archetype-as-such and archetypal image. Moreover, I do not see the archetype as a hypothetical core for a cluster of images, nor do I see there being a one-to-one relationship between archetype-as-such and archetypal image. These latter ideas seem to hide Cartesian assumptions, so I do not use them. Instead, I think we inherit an "alphabet" of innate mappings that we can use to compose a huge number of archetypal images. Our experience and imagination do the rest, but even this process may evince some level of innate guidance, given the remarkable similarity of some cross-cultural complexes such as ritual structures and mythic forms. In future work I will explore that possibility in more depth. In any case, expressions that utilize mainly culturally invented primary metaphors should *not* be considered archetypal, though they can still carry a great deal of individual meaning.

This formulation provides an explanation for classic Jungian archetypal images such as the Mother, the Father, the *Senex*, the Solar Hero, the *Puer*, the Anima/us, the Child, etc.: they are complex metaphors of universal situations that use mostly innate mappings in their composition. They will embody and symbolize all the intense emotions that go along with these species-universal situations and they will defy easy verbalization. Because they use mostly innate mappings, their source is the human body itself, which naturally originates from the genome (see Goodwyn, 2023). Hence archetypes should be considered as transmitted biologically.

This formulation has many advantages:

- 1 It provides easy-to-use criteria to judge spontaneous clinical material to assess its level of archetypality.
- 2 It is easily falsifiable. Each of my proposed innate mappings can be tested cross-culturally to see if they are contradicted, or if they are instead highly stable like ANGER IS HEAT.

- 3 It helps us *interpret* the images themselves, since knowledge of the origin of innate mappings means we will have a kind of “Rosetta stone” with which to analyze clinical material of all kinds. Note that each archetypal image should be considered a whole greater than its parts, however, rather than “nothing but X”. I do *not* advocate for any sort of reductionism.
- 4 It explains *why* archetypal images can appear so mysterious and full of meaning despite their ineffable quality: because as symbols, they are complex, holistic metaphors embodying powerful, but difficult to verbalize human feelings, perceptions, and expressions of meaning.
- 5 It explains how archetypal images, despite their biological origins, are not rigid and can respond to large-scale cultural shifts—new compositions of the innate “alphabet” are always possible, though truly novel creations will likely be rare.
- 6 It explains why mythic narratives can often look so similar but not identical worldwide, and it provides clues as to why: cultural emphasis on some mappings over others, for a start.

Hopefully, this integration of archetype theory with the study of spontaneous thought and embodied cognitive sciences resolves some of the controversies that have dogged the theory for so long. We need not fear bringing universal and innate human qualities to light. Recognizing that all humans have the same symbolic “alphabet” with which to construct our deepest fears and dreams seems more likely to bring diverse groups closer together. Innate mappings are indeed a biologically transmitted “alphabet”, which the unconscious can use to compose all kinds of archetypal images using embodied principles, all using the same human body we are all given. This means that in a very real sense, the *body itself* can be considered the collective unconscious.

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TRANSLATIONS OF ABSTRACT

Pendant une partie importante de son histoire, la théorie des archétypes a été discréditée par des critiques contenant des hypothèses cartésiennes qui n'étaient pas remises en question. De telles hypothèses considèrent que toute capacité cognitive est désincarnée et consiste en une simple manipulation de signes abstraits et intrinsèquement dépourvus de sens, imités à partir d'instructions verbales ou d'apprentissage culturel. Néanmoins depuis les années 1980, du fait de résultats provenant de plusieurs disciplines indépendantes, cette façon de voir est remplacée par une autre: celle de la capacité cognitive incarnée. Ce déplacement a des conséquences importantes pour la théorie des archétypes, nous permettant de fournir un ancrage biologique non-réducteur qui explique un grand nombre de caractéristiques de l'image archétypale.

Mots clés: archétype, capacité cognitive incarnée, théorie de la métaphore, pensée spontanée, dualisme

Während eines bedeutenden Teils ihrer Geschichte wurde die Archetypentheorie durch Kritiken untergraben, die ungeprüfte kartesiansche Annahmen enthielten. Solche Annahmen behandeln jede Erkenntnis als körperlos, bestehend lediglich aus der Manipulation abstrakter, inhärent bedeutungsloser Zeichen, die durch verbale Anleitung oder kulturelles Lernen nachgeahmt werden. Seit den 1980-er Jahren wird diese Sichtweise aufgrund der Ergebnisse vieler unabhängiger Disziplinen jedoch durch die Sichtweise der verkörperten Erkenntnis ersetzt. Diese Verschiebung hat

wichtige Konsequenzen für die Archypentheorie und ermöglicht es uns, einen nicht-reduktiven biologischen Anker bereitzustellen, der viele Merkmale des archetypischen Bildes erklärt.

Schlüsselwörter: Archetyp, verkörperte Erkenntnis, Metaphertheorie, spontaner Einfall, Dualismus

Per una parte significativa della sua storia, la teoria degli archetipi è stata indebolita da critiche contenenti presupposti cartesiani non verificati. Tali presupposti trattano tutta la cognizione come se fosse disincarnata, consistente in una mera manipolazione di segni astratti, intrinsecamente privi di significato, imitati dall'istruzione verbale o dall'apprendimento culturale. A partire dagli anni '80, grazie ai risultati di molte discipline indipendenti, tuttavia, questa visione è stata sostituita da una di cognizione incarnata. Questo cambiamento ha avuto importanti conseguenze per la teoria degli archetipi, permettendoci di fornire un ancoraggio biologico non-riduttivo che spiega molte caratteristiche dell'immagine archetipica.

Parole chiave: archetipo, cognizione incarnata, teoria della metafora, pensiero spontaneo, dualismo

На протяжении значительной части истории существования теории архетипов ее неоднократно критиковали, опираясь на непроверенные картезианские допущения. Такие допущения рассматривают всякое знание как невоплощенное, заключающееся в простом манипулировании абстрактными, по своей сути бессмысленными знаками, имитирующими вербальное обучение либо культурное научение. Однако в 1980-х годах, благодаря исследованиям множества независимых дисциплин, на смену этому взгляду приходит концепция *воплощенного* познания. Этот сдвиг парадигмы имеет важные последствия для теории архетипов, поскольку нам предоставляется возможность объяснения многих свойств архетипического образа с опорой на нередуктивные биологические основания.

Ключевые слова: архетип, воплощенное познание, теория метафор, спонтанное мышление, дуализм

Durante una parte significativa de su historia, la teoría de los arquetipos se ha visto afectada por críticas que contenían supuestos cartesianos no examinados. Dichos supuestos dan cuenta de toda cognición como incorpórea, consistiendo en la mera manipulación de signos abstractos e intrínsecamente carentes de significado, imitados a partir de la instrucción verbal o el aprendizaje cultural. Sin embargo, desde la década de 1980, gracias a los resultados de muchas disciplinas independientes, este punto de vista se está sustituyendo por el de la cognición *encarnada*. Este cambio tiene importantes consecuencias para la teoría de los arquetipos, ya que nos permite ofrecer un anclaje biológico no reductivo que explica

muchas características de la imagen arquetípica.

Palabras clave: arquetipo, cognición encarnada, teoría de la metáfora, pensamiento espontáneo, dualismo

人类身体是集体无意识:原型意象作为与生俱来的隐喻

在原型理论的发展史上,有相当长的一段时期,它都受到了未经审查的笛卡尔假设的批评。笛卡尔的这种假设将所有认知都视为非身体的,仅仅是对抽象的、本质上毫无意义的符号的操作,而这些符号是从语言教学或文化学习中通过模仿而得来的。然而,自 20 世纪 80 年代以来,由于许多独立学科的研究成果,这种观点正在被具身认知所取代。这一转变对原型理论具有重要影响,使我们能够提供一个非还原论的、生物性的锚点,这可以解释原型意象的许多特征。

关键词: 原型, 具身认知, 隐喻理论, 自发思维, 二元论
