

# Analytical Psychology and Brain Hemisphere Research

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## Introduction

In recent decades, advances in brain neuroscience have yielded a more nuanced understanding of the functional asymmetry of the human brain. These findings are compelling to our profession, not because they offer radically new insights to the psychoanalyst, but rather because they scientifically underpin what has long been intuited and observed within clinical practice and provides useful orientation-points for what we pay attention to and prioritize in our work.

This presentation aims at illustrating how these neurological findings about hemispheric specialization support and strengthen the psychoanalytic frame. They highlight and confirm the clinical importance of affective presence, symbolic resonance and non-verbal communication. This has implications for the analyst's reflections and stance: for example on how conscious we are as analysts about whether we ourselves are in the realm of the right-hemisphere or in that of the left-hemisphere? How we listen, how we intervene or not, and —perhaps most importantly— how we remain attuned to what unfolds behind the words. Rather than displacing analytic practice, neuroscience deepens and refines our appreciation of what Jung described as the transpersonal process of inner exploration and healing.

This paper consists of two parts. The first part will give an overview of the lateralization — that is the specialization of certain functions to the right or left side of the brain —, the second part will explore some implications from these neurological findings for our psychoanalytic practice.

## Part 1 – The Lateralization of Brain Functions: An Overview

Popular believe about brain lateralization often oversimplifies the concept, leading to the widespread but incorrect idea that the left-hemisphere is rational and the right-hemisphere

emotional. The reality is much more interesting. Both sides of the brain work together in a highly integrated way. Rationality and emotion both involve complex networks that span both hemispheres. Any oversimplified dichotomy ignores the brain's plasticity and interconnectedness, reducing nuanced psychological processes to misleading stereotypes.

For example, it is a common misunderstanding to say emotions belong solely to the right-hemisphere. Both hemispheres contribute to emotional life but in distinct ways. The right-hemisphere dominates primary affective attunement, prosody, and withdrawal-related emotions (such as sadness and fear), while the left-hemisphere is more engaged with approach-related emotions (such as anger and determination).

Importantly, biographical affect and early attachment bonding are predominantly right-hemisphere-mediated. The right-hemisphere carries emotional traces of implicit memory and early relational experience, as demonstrated by Allan Schore's research on infant-caregiver affective bonding. This early right-hemisphere attunement forms the foundation for later relational capacities and emotional regulation and in the consulting room is mediated through right-hemisphere-to-right-hemisphere communication between analyst and analysand. The right-hemisphere mediates bonding and empathy whereas the left-hemisphere supports denial, rivalry and control.

Much of the first part of this paper is based on the work of Dr Iain McGilchrist— whose colossal and landmark work on hemisphere lateralization draws from a vast body of experimental research (more than 5,700 publications, many of which describe sad cases involving patients with hemisphere-specific lesions). One of the main conclusions of Dr McGilchrist is that the two cerebral hemispheres do not merely divide tasks, but engage with reality in fundamentally different ways.

It is helpful to start by asking ourselves why we have two hemispheres in the first place? The answer is that for survival we depend on mastering two complementary faculties. The right-hemisphere has broad attention and the left-hemisphere is specialized in focussed attention. The

right-hemisphere plays a role in scanning the world for danger (not being eaten), whereas the left-hemisphere is specialized in grasping and manipulating (handling and eating food). The right-hemisphere surveys, senses, and responds to novelty and threat. The left-hemisphere narrows its focus to facilitate specific action: it grabs, organizes, and labels. The right-hemisphere sees the whole, the left-hemisphere is about differentiation, it sees parts. As these two sets of faculties require very different skills, which for survival also need to be available at the same time, we need two parallel very differently operating neurological processors.

The most characteristic difference between the two is that the right-hemisphere presents and the left-hemisphere re-presents. The right hemisphere mediates our initial and immediate engagement with the world. It is the hemisphere that perceives reality in context, grounded in the embodied and relational moment. In contrast, the left hemisphere takes what has already been experienced (through the right-hemisphere) and re-presents it — abstracted, categorized, and detached.

The left hemisphere specializes in depersonalized, abstracted thought. It excels at breaking down direct right-hemisphere experience into discrete, context-independent units, enabling categorization, logical analysis, and sequential processing. This cognitive style favors objectivity and detachment, often reducing rich, embodied experience to abstract representations.

The hemispheres also diverge in how they process uncertainty. The left-hemisphere is associated with either/or thinking, a desire for certainty, and a tendency to jump to conclusions. It seeks closure, even if the picture is incomplete. It will fabricate coherence when needed. The right-hemisphere, on the other hand, is able to hold ambiguity, remain open, and tolerate not-knowing. It perceives complexity, nuance, and paradox — features common to both the clinical encounter and the psyche itself. Keats<sup>1</sup> Negative Capability resonates strongly with right hemisphere processing.

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<sup>1</sup> John Keats, the Romantic poet, introduced the idea of Negative Capability in a letter in 1817. He described it as:

“when a man is capable of being in uncertainties, mysteries, doubts, without any irritable reaching after fact and reason.”

The right-hemisphere yields an “anomaly detector”: it actively monitors for discrepancies and is the first to flag a hunch that something is not in order, detects errors or mismatches between expectation and perception. The left-hemisphere, by contrast, often shows an optimistic, controlling bias, eager to impose order and certainty. The right-hemisphere tends to be realistic and grounded, attending to context, uncertainty, and relational complexity.

A further critical difference lies in how each hemisphere understands context. The right-hemisphere is with flow and the implicit, the left-hemisphere with fixity and the explicit. The left-hemisphere typically takes original in-context right-hemisphere content to frame it in pre-existing rational dimensions thus reducing nuance and de-contextualizing.

The right-hemisphere’s orientation towards “the world” (inner and outer) is thus holistic and embodied; the left-hemisphere’s is disembodied, partial and abstract. This leads McGilchrist to propose a provocative formulation: the right-hemisphere’s perspective more closely corresponds to Whole Truth, while the left-hemisphere offers partial truth, framed within closed systems of internal logic. Reason alone, as mediated by the left-hemisphere, lacks sufficient dimensions to frame the complexity of reality.

The right-hemisphere supports as-if thinking. The left-hemisphere takes its input as literal and concrete. The left-hemisphere is drawn to categorization, particularly the labeling of phenomena, even those that resist simple classification. McGilchrist refers to the left-hemisphere as “the bureaucrat,” emphasizing its affinity for linear procedures, systematization, signs not symbols and bureaucratic formality. The right-hemisphere, more comfortable with mythos — metaphor, narrative, image, symbols — is likely better suited for improvisation, intuition, and relational depth.

We also see this divergence in certain psychopathologies. Patients with schizophrenia and individuals on the autistic spectrum, although clinically distinct, share overlapping features and

even a genetic basis. The phenomenological overlap between right-hemisphere—damaged patients and individuals with schizophrenia is striking, especially in how they perceive the world and how others experience them. The right-hemisphere engages reality in its wholeness; the left-hemisphere fragments and detaches. The schizoid perceptual stance, in which conflicting beliefs coexist without distress, mirrors the left-hemisphere fragmented mode. In this realm, “anything goes,” and contradiction becomes unproblematic.

This dichotomy extends to our experience of the Self. The right-hemisphere mediates self-experience in context, grounded in emotion, image, and connection. The left-hemisphere constructs self-concepts, which may be abstract, de-personalized, defensive, or even illusory. The illusions thus created through the left-hemisphere can develop into persisting incorrect Self-images. Winnicott’s False Self comes to mind as well as many other rigid storylines that people can develop. About the self, McGilchrist writes (TMWT p876):

“ When it comes to the self, one can predict that each hemisphere will support a different version. The self as conceived by the Left Hemisphere, should be —and is— an entity that is relatively static, separate, fixed, yet fragmentary, a succession of moments, goal oriented, with its needs at any moment perceived as essentially competitive (since others may similarly target the same resources), determinate, consciously willful, circumscribed in the breath and depth of what it sees, at ease with the familiar, certain and explicit, but less so with all that is fluid, ambiguous, and implicit, and unaware of the limitations of its own knowledge. The self as conceived by the Right Hemisphere should be —and is— more akin to process than a thing, essentially fluid and less determinate, nonetheless forming a unique whole over time, aware that it is fundamentally inseparable from all else that exists, open to others and to experience, more concerned with co-operation than competition, less consciously willful, more engaged in what one might call “active passivity” (an open attendant disposition, in which one is ready to respond to what emerges), seeing the greater picture in space and time, and aware of the extent of its ignorance”.

The parallel to Jung's distinction between Ego and Self is obvious. The ego, with its narrowed self-reference, mirrors the left-hemisphere's tendency toward simplification and control whereas the Self — as a totality that transcends the ego — resembles the right-hemisphere's integrative capacity. More broadly: mythology, religion, alchemy, and other mythopoetic "languages" correspond to the right-hemisphere's capability of processing symbols and engaging with metaphor, ambiguity and implicit meaning.

A word about dreaming. Neurophysiological evidence confirms that dreaming, especially during REM sleep, is predominantly right-hemisphere mediated. Regions involved in visual imagery, emotional memory, and embodied self-awareness become activated, while left-hemisphere areas related to logic and verbal processing are less engaged. This explains why dreams communicate through symbol, image, and affect rather than linear narrative.

## Part 2 Clinical Points of Attention and Prioritization of Interventions

The above-sketched inventory of brain hemisphere functionality makes abundantly clear, I think, that break-through progress in psychoanalysis is catalyzed by both the analyst and the analysand. being with the right-hemisphere and delayed by left-hemisphere interference. What could be the lessons from this for us as analysts? I have five suggestions: 1 be hemisphere aware, 2 recognize left-hemisphere dominant dynamics, 3 get yourself in right-hemisphere mode, 4 get the analysand to right-hemisphere mode and 5 integrate. Below we will explore these recommendations further.

### 1. Be hemisphere aware

When the analyst becomes aware of hemispheric states of his analysand as well as his own it helps to find interpretation and may guide towards amplifications or other interventions. For example when the analytic process stagnates and we ask ourselves which hemispheres are dominating, we may sooner than otherwise realize that the analysand is in the grip of defensive left-hemisphere dynamics such as when the analysand is engaged in abstracted, depersonalized,

or overly cognitive defensive dynamics. Or worse: when the patient has seduced the analyst in a left-hemisphere-left-hemisphere collusion.

## 2. Recognize left-hemisphere dominating dynamics

It is important to distinguish between long-term- and short-term effects of left-hemisphere domination. The short-term effects are at play in the here-and-now of the analytic hour. The long-term effects may have been with the analysand during her lifetime and will have left its marks on the personality and sense of identity which are of course also at play during the hour.

First about the short-term effects. When the patient is intellectualizing or rationalizing or talking in a depersonalized way or perhaps in abstract categories or is not seeing things in context, we are likely to deal with an analysand whose conscious is at least partly eclipsed by the rigid ways of the left-hemisphere. Often, intellectualization, rationalization etc. are strategies that serve to protect the ego by distancing the individual from overwhelming emotions or relational complexity which are right-hemisphere mediated. Jung's concept of the (feeling-toned) complex—a cluster of emotionally charged, autonomous psychic material—eclipsing a wider view of a person, corresponds to left-hemisphere dominance over the right-hemisphere, manifesting as repetitive, rigid thought patterns that limit symbolic integration.

Depending on the situation we need to find ways to demoting the left-hemisphere and re-installing the right-hemisphere in its original role as the primal seat of Self. This I will discuss more in a paragraph below.

The long-term effects of left-hemisphere dominance have been building up during a lifetime and will leave its marks on the personality and sense of identity. McGilchrist evocatively describes the left-hemisphere as a “hall of mirrors,” a self-referential, recursive system that can become trapped in its own reflections. This quality is closely linked to the formation of what Winnicott has called the False Self: a defensive, constructed identity that protects the vulnerable true self which in turn is

mediated by the right-hemisphere — by conforming to external expectations and maintaining control. The left-hemisphere's tendency toward abstraction and depersonalization thus plays a key role in maintaining these defensive psychic structures.

A long term goal of the analysis is to deconstruct and reconstruct the identity such that the False Self gets found out and a relationship with the True Self is established. In the language of hemisphere lateralization this is achieved by demoting the left-hemisphere and re-installing the right-hemisphere in its original role as the primal seat of Self. The slow and long-term de-potentialization of the false self — the left-hemisphere — and re-installation of the original Self involves similar techniques as the solving of short-term left-hemisphere dominance as we can rely on Jung's great insight that the Self will surface if it is listened to.

### 3. Get yourself in right-hemisphere mode:

No matter how experienced we are and no matter how conscious we are of our own shadow, it is almost unavoidable that we as experienced psychoanalyst now and then get seduced into a left-hemisphere modus. For example through unconscious projective identification with the analysand's defenses. This collusion would be a repetition of the not-good-enough emotional relating of the infant to the mother/caretaker and it is against the essence of good psychoanalytic practice which lies in the affective intersubjective field created between analyst and analysand. As has been broadly illustrated above, contemporary neuropsychology confirms that this emotional and relational resonance is largely right hemisphere-to-right hemisphere mediated.

Here is an analyst's checklist for being right-hemisphere mode:

- Are we not focussing too much on the verbal content?
- Is our Anomaly detector on? (Evenly distributed attention, *gleichschwebende Aufmerksamkeit*),
- Are we picking up unconscious right hemisphere-mediated transference-cues such as facial expressions, tone of voice, posture and silences through which the analyst perceives and responds to the analysand's unconscious emotional communications.



- Are we exploring and not explaining? (longing for interpretive closure which would bypass the experiential depth necessary for lasting integration).
- Are we with our negative capability? (no need for premature closure)
- Are we embodied and feeling?

#### 4. Get the analysand to right-hemisphere mode

Techniques that promote right-hemisphere processing are particularly valuable. This requires the analyst to reach out to the analysands right-hemisphere which might be done through amplifying biographical affect, working with dreams or transference and counter-transference interpretations. Encouraging dreamwork is for many of us the number one way of opening the path to the unconscious. During dreaming the right-hemisphere is active as we now know, it is highly likely that the analysand will get into right-hemisphere mode when we read the dream back verbatim. Within Jungian practice, the traditional working with dreams and engaging in active imagination are quintessentially right-hemisphere activities. They require analytic receptivity, tolerance for ambiguity, and an openness to symbolic meaning that mirrors the right-hemisphere's mode of knowing. This stance fosters a dialogical process, amplifying the unconscious material rather than reducing it to left-hemisphere-dominated explanation.

Also active imagination brings us to the right-hemisphere. When the analysand appears overly immersed in left-hemisphere functioning—abstract reasoning, rigid narrative, or emotional detachment—the analyst may suggest active imagination, such as “dreaming the dream onwards.” This technique promotes a felt-sense dialogue with images, inviting a shift toward right-hemisphere engagement with emotion and symbol. However, caution is required: active imagination can slip into left-hemisphere—driven fabulation, where narrative construction overtakes genuine affective engagement. The analyst must monitor this fine balance, maintaining the symbolic richness of right-hemisphere processes without letting them devolve into intellectual bypassing of the emotions.

Encouraging free association taps into the right hemisphere's capacity for fluid, nonlinear, and imaginative thinking. Be especially aware that early free associations, often arising viscerally through the right-hemisphere, may precede their rationalization by the left-hemisphere.

Recognizing and valuing these initial, bodily-felt expressions is crucial for maintaining affective authenticity. By relaxing the left-hemisphere ego's grip, free association allows right-hemisphere processes of emotional experience, symbolic imagination, and unconscious material to surface more freely. This stage corresponds to Melanie Klein's model describing a movement from the schizoid position—marked by splitting and rigid conceptual boundaries—to the depressive position, characterized by tolerance of ambivalence and relational depth. This progression mirrors a critical left hemisphere to right hemisphere shift: from the controlling, categorizing ego toward symbolic, integrative capacities necessary for relational mourning and repair.

## 5. Integrate hemispheres

In summary, the analyst's initial priority is to support and preserve right-hemisphere—right-hemisphere attunement, encourage exploration over explanation, and promote emotional integration by remaining sensitive to shifts in hemispheric dominance. This attunement is not a technique but a mode of presence—one that enables the analyst to meet the analysand where affect, image, and symbol arise, and to hold that space open for transformation.

Ultimately, however, after the left-hemisphere has been tamed in later stages of the analysis, we need to integrate the functions of the left-hemisphere and the right-hemisphere. This is the stage of chimney-sweeping, widening Edinger's Ego-Self-axis.

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