

# Jung's mediatory science as a psychology beyond objectivism

William E. Kotsch, *Taos, New Mexico*

*Abstract:* In this paper, the author argues that Jung's non-objectivist – yet scientific – epistemology and his empirical/hermeneutic methods of inquiry situate him within a psychological tradition that, in many respects, began with William James and, today, is finding expression in the work of many non-Jungian cognitive scientists. In an effort to encourage dialogue between Jungians and scholars within related intellectual traditions, the author presents evidence from the corpus of Jung's work that demonstrates that, like William James, Jung intentionally rejected the absolutist claims of objectivism and the opposite position on 'anything goes' relativism, emotivism, or subjectivism. Instead, Jung forged a path that led to the meta-psychological position similar to internal realism (Putnam 1981) or experientialism (Lakoff 1987) and to a theoretical psychology that gave a central place both to unconscious cognitive structure and to imagination. This he labelled a 'mediatory science'. The psychological theories developed within this mediatory science framework represent an early articulation of key constructs that are currently used by a number of cognitive scientists seeking to understand how we make sense of experience.

*Key words:* cognitive science, epistemology, metaphor, objectivism, psychic realism.

---

## Introduction

To the critical intelligence, nothing is left of *absolute* reality.

(Jung 1928, para. 354)

In a recent issue of the *Journal of Analytical Psychology*, Peter Homans argues that psychoanalysis is under attack and summarizes the major criticisms:

[E]pistemologically, psychoanalysis is scientifically invalid; therapeutically, it is ineffective; economically, it is too costly and takes too long; and, theoretically, it is pluralized to the point of fragmentation.

(1998, p. 156)

He notes that applications to psychoanalytic training programmes are down as are the number of people seeking psychoanalysis. Focusing especially on the

situation in the United States, Taylor (1998) concurs and describes various responses to the 'plight ... of contemporary psychoanalysis' (Homans 1998, p. 155). He notes a radical shift in university training programmes away from 'teaching even psychoanalytically assisted psychotherapy to a new emphasis on psychopharmacology and cognitive behaviorism' (p. 111). Taylor asserts that in clinical practice Jung has 'superseded Freud as the new guru of inner exploration, where meditation and transcendence take center stage with spiritual development in the therapeutic encounter' (p. 111). Against these trends, 'Jungian analysts are looking more and more like their psychoanalytic counterparts' (p. 110), climbing onto a 'Freudian ship ... [that] appears to be sinking' (p. 111).

Homans (1998) and Shamdasani (1998) suggest two explanations for the persistence of Jungians in pursuing psychoanalytically oriented scholarship and practice even when these often are unsatisfying and unproductive. Shamdasani asserts that Jungians have unquestionably accepted 'the adequacy of Freudocentric reading of Jung' (p. 116) and have allowed themselves to develop practices grounded in an inappropriate frame of reference. Homans, in turn, writing specifically about psychoanalysis, insists that the 'collapse of its plausibility' (p. 164) can be traced to a sterility of thought brought about by isolation and insulation within institutes around the world. This institutionalization had the effect of 'closing heavy doors' (p. 165) to outside influences that could have assisted psychoanalysts in challenging, refining, and developing their thoughts and practices. His comments about psychoanalysis and its practitioners could also apply to analytical psychologists. As Spiegelman (1988) aptly notes:

Jungian analysts are part of a village for people who could not remain in the village ... We keep to our inner process and to a few close people but ... lack the skills, capacity, or even desire to be part of larger communities.

(p. 75)

Jungians have tended to remove themselves from interactions with 'others in psychology who are not Jungian' (Kirsch 1988, p. 66).

We can identify at least two effects emerging from a pervasive reading of Jung from a psychoanalytic perspective and from the isolation of Jungians from other schools of thought. The first of these is 'nothing less than a complete mislocation of Jung in the intellectual history of the twentieth century' (Shamdasani 1998, p. 116). This mislocation has inhibited our ability to read and interpret Jung in light of his own psychology and to systematically develop theoretical concepts through productive therapeutic practices. It has also created what Merritt (1988) describes as a 'strained relationship' (p. 11) between Jungian psychology and science and, I might add, between Jungians and developments in the theory and practice of (non-psychoanalytic) psychotherapy. The insularity of analytical psychologists has all too often prevented them from appreciating and using the 'creative fantasy, method, discipline, and attention to detail' (Merritt 1988, p. 15) of science.

In this paper, I attempt to articulate a position that I believe accurately reflects Jung's epistemology and to situate him as a pioneer in a psychological movement which began not with Freud but with William James and his vision of a psychology that is pragmatic, pluralistic, and radically empirical.<sup>1</sup> This movement is continuing to evolve not only as a depth psychology but also as a contemporary psychological science. I suggest that many powerful ideas coming from philosophy of science and the multi-disciplinary field of contemporary cognitive science are consistent with ways of understanding human experience articulated years earlier by Jung. In contrast to Freud, who elevated the ego to a place of pre-eminence, Jung was careful not to overemphasize its importance (Samuels 1985). Similarly, research in cognitive science is relativizing ego consciousness – the cognizing subject – by pointing up 'its lack of solidity, its divided dynamics, and its generation from unconscious processes' (Varela, Thompson & Rosch 1992, p. 127). In my view, recognizing Jung's underlying epistemology and its links to developments in cognitive science and opening a dialogue between Jungians and scientists within more traditional academic disciplines represent vital first steps in a revitalization of analytical psychology. In fact, some influential cognitive scientists have been calling for such a dialogue:

... the need for a bridge between cognitive science and an open-ended pragmatic approach to human experience will become only more inevitable. Indeed, cognitive science will be able to resist the need for such a bridge only by adopting an attitude that is inconsistent with its own theories and discoveries.

(Varela, Thompson & Rosch 1992, p. 127)

My project here is to encourage a dialogue by locating Jung as a pioneer in an intellectual tradition that is now influencing cognitive science. In order to do this, I begin with a discussion of Jung's 'epistemological frame of reference' (Taylor 1998, p. 98). I present evidence from the corpus of his work that demonstrates that, like William James, Jung intentionally rejected the absolutist claims of objectivism that assumed an Archimedean point from which to study human experience (Jung 1951, para. 254). (Indeed, throughout his work, he demonstrated strong agreement with James's contention (Taylor 1996, p. 179) that '... the one fundamental quarrel that Empiricism has with Absolutism is over [the] repudiation by Absolutism of the personal and aesthetic factor in the construction of philosophy'.<sup>2</sup> Furthermore, Jung did not remain within the context of the objectivist perspective by adopting its opposite, an 'anything goes' relativism, emotivism, or subjectivism. Rather, he forged a path that led to the meta-psychological position similar to internal realism (Putnam 1981) or experientialism (Lakoff 1987) and to a theoretical psychology that gave a central place both to unconscious cognitive structure and to imagination. Far from being merely an academic concern, this perspective leads to a distinctly Jungian analytical attitude (Bright 1997) where meaning and order are understood

as both created and discovered in the analytic encounter. After describing Jung's meta-psychological position, I turn my attention in the next section to certain features of his psychological theory that represent an early articulation of key constructs currently used by a number of cognitive scientists seeking to understand how we make sense of experience. Specifically, I consider archetypes and their parallels with Mark Johnson's (1987, 1993) image schemata, and I note similarities between Jung's understanding of the role of myth, fantasy, and imagination and contemporary theories that hold that narrative and metaphor play central roles in the human process of making sense of experience.

Before I present my arguments, I need to emphasize three points. First, even as I argue that Jung was a pioneer in the development of a vital and viable way of understanding the mind, I also recognize that his theoretical statements were preliminary and tentative. His psychological theory was 'good enough' to provide us with a rich description of human experience, experience that is hidden or denied by objectivist psychological theory. To use a journey metaphor, I assert that Jung traversed a path that was, in many ways, mapped by William James and, further, that he opened a new territory. Cognitive scientists are currently building better roads and making this territory more accessible, but Jung's frontier trails enable us to reach the important landmarks and give purpose and direction to modern road-building efforts. A dialogue between cognitive science and analytical psychology is important.

Second, I need to acknowledge that there exist many strands within cognitive science. I am not trying to oversimplify this field or, in any way, to imply that all cognitive scientists are alike. Rather, I am simply pointing out that some important themes emerging from what Gardner (1987) calls 'the mind's new science', with its critical analysis of objectivism and its emphasis on psychological structure and metaphorical concepts, provide a theoretical and empirically based position that is compatible with Jung's conceptual framework for understanding 'internal' experience. As this empirical and theoretical work becomes more established in the social sciences, it provides a conceptual bridge to Jung's practical, therapeutic psychology. On the one hand, the link to contemporary intellectual thought renders the major insights of analytical psychology more accessible by placing them in an emerging conceptual framework that seemingly becomes less and less esoteric. On the other hand, the link provides contemporary scholars and scientists access to Jung's rich account of human experience.

Finally, I am writing because I believe that it is critical that Jungians neither choose nor allow themselves to be excluded from the great conversation that is contemporary science. Indeed, to avoid dissociation, to avoid becoming more insular and 'esoteric', we must willingly engage in numerous ongoing conversations. Only in doing so, can we examine and refine our theories, assumptions, and practices against the breadth of human experience and ensure that our knowledge connects with life.

### Jung's meta-psychology or mediating science

... psychology [is] a mediatory science ... capable of uniting the idea and the thing without doing violence to either ... though no one would contend that psychology so far has accomplished this task.

(Jung 1921, para. 72)

In the intellectual world in which I grew up ... it was ... straight materialism, which I never shared, knowing too much about its ridiculous mythology.

(‘Letter to J. F. Rychlak’ 1959, Jung 1975)

In *The Mind's New Science: A History of the Cognitive Revolution*, Howard Gardner (1987) suggests that a complete understanding of contemporary cognitive science depends upon a recognition of the epistemological underpinnings that have provided the field with ‘its agenda – the list of issues and topics upon which empirically oriented ... scientists are working today’ (p. 50). Echoing Gardner, I contend that an appreciation of the links between the work of certain modern cognitive scientists and Jung requires us to delve into assumptions that frame his work. In the following sections, I argue that Carl Jung, in his quest to understand human experience, articulated a non-objectivist – yet empirical – epistemological position that is remarkably consistent with that held today by a number of cognitive scientists. I discuss key features of these in the section devoted to Jung's epistemology. My attention then turns to a discussion of Jung's commitment to science as I suggest that his work, like that of James and many scientists today, could be characterized as ‘radically empirical’ (Taylor 1996). Finally, I describe the metaphysical framework within which Jung worked.

### *Jung's epistemology*

Deeply ingrained in Western thought and culture are a set of assumptions that have had a profound influence on psychological theories and practices as well as on our common sense ideas about what is true, right, and meaningful. These assumptions, often clustered under the heading of ‘objectivism’ (Bernstein 1991) or ‘external realism’ (Putnam 1981), hold that:

- the mind is a passive mirror of the world containing ‘real’ objects;
- images and concepts are meaningful to the extent they correspond to known objects and categories in the external world;
- correct reason reflects relations existing among objects and categories in the world; and
- cognition is independent of the person doing the cognizing (Lakoff 1987).

While objectivism had been a central concern of philosophy for two thousand years, it was the alchemist/empiricist/theorist Isaac Newton who presented a theory of such beauty and practicality that objectivism became part of the

official dogma of science: The world of science – the real world – was *nothing* but the world of objects, their properties, and their causal relations. Beginning in the late 1800s and into the early 1900s, William James mounted an aggressive attack on ‘the penchant [in psychology] to treat the world and everything in it as objects, all knowable and under the control of the rational mind’ (Taylor 1996, p. 112). Similarly, many scientists such as Nils Bohr and his student, Wolfgang Pauli, realized the limitations of objectivist thinking on the progress of the physical sciences (Folse 1985). However, objectivism remains prominent in Western folk psychology and is still seen, I believe, by the non-specialist to be an integral part of modern psychological science. This is certainly not the case. Today objectivism is being widely challenged in the social sciences and has been shown experimentally to be deficient. Indeed, recently in the multi-disciplined area of cognitive science, a number of scholars have recognized that an objectivist perspective cannot survive the challenge presented by the discovery of the ‘cognitive unconscious’ (Piaget 1973, p. 34) and the demonstrable influence of tacit knowledge (Bransford & McCarrell 1974; Franks 1974; Polanyi 1966) on conscious thought. That the unconscious is, in part, a cognitive unconscious structure is an acknowledgement that unconscious mental processes have form and contribute to the human activity of meaning making.

Moving beyond objectivism and its shadow, relativism, some cognitive scientists are embracing a new realism, an ‘internal realism’ which holds that our knowledge of ‘reality’ is connected to our experience and our experience is always, in part, dependent on our nature as human beings. Their body of work represents a convincing contemporary challenge to objectivism where order and meaning are taken as external to human life and experience. Rejecting the notion that our understanding of ourselves and our world depends upon accurate and orderly representation of a reality external to us and independent of human functioning, these researchers assert that non-representable patterns or mental structures, intimately connected to our bodies and our bodily activity at a basic pre-conceptual level of experience, are the source of meaning and understanding (Lakoff & Johnson 1980). Further, they contend that these patterns are extended and developed into conceptual systems through imaginative processes (Lakoff 1987, 1993, 1996). Thus, the mind and, more specifically, the conceptual systems we employ in logical thinking and moral reasoning are both embodied and imaginative (Johnson 1987, 1993). Even while rejecting objectivism, these cognitive scientists avoid an ‘anything goes’ relativism through explicitly or implicitly acknowledging at least some of the key propositions nicely summarized by Lakoff (1987):

- a commitment to the existence of a real world external to human beings and human consciousness;
- a commitment to the possibility of real human knowledge of the world, even though our knowledge must remain incomplete and subject to the possibility of being recast in new forms;

- a concept of truth that is based not only on internal coherence and 'rational' acceptability but, most importantly, on coherence with our constant real experience; and
- a link between mind and the world via real human experience, experience that is not purely internal, but is constrained at every instant by the real world of which we are an inextricable part.

These ideas have given rise to a new realism centered on the transaction between subject and object – between ego and other – and to a new understanding of objectivity that is decidedly psychological and dependent, in part, on the nature of human beings and their mental, physical, and social processes. While James recommended this transactional focus almost a century ago (Taylor 1996), only recently has a 'critical mass' of work in both philosophy and science accumulated that espouses this new way of thinking (Lakoff 1987). Certainly the articulation of key concepts related to this perspective by prominent cognitive scientists such as Bruner (1990) and Varela, Thompson, and Rosch (1992) has brought them into the mainstream of efforts to understand the mind – so much so that today this way of thinking is considered to be a serious and viable alternative to objectivism in contemporary science.

Carl Jung articulated an epistemological perspective that predates and foreshadows theories emerging in today's cognitive science. His epistemological perspective is one that we might call *psychic realism*. This perspective which emphasizes the 'reality of psyche' is the product of Jung's desire to develop a 'mediatory science' (Jung 1921, para. 72) between the objectivist and relativist accounts of knowledge and knowing that traditionally supplied frameworks for science, philosophy, and psychology. It is important to recognize that Jung's perspective is not merely a compromise between two established viewpoints. Rather, it represents a new path, an alternative to the forced choice imposed upon western thought by the hegemony of the dichotomous constructs of objectivism and relativism. Psychic realism is a psychological perspective designed to return our focus to our embodied, lived experience – to our psychic reality – rather than to allow us to remain stuck in the intellectual arguments posed in terms of an opposition between objectivism and relativism. As a theorist, Jung intentionally articulated and worked from a 'psychological standpoint' (Jung 1926, para. 622). As a psychotherapist, he invites us to move away from the intellectual debate between objectivism and relativism, to explore a new framework grounded in both individual and consensual experience.

In adopting his psychological standpoint, Jung was operating from an epistemological perspective similar to one William James embraced during the last two decades of his life – that the starting point for psychological knowledge must be our 'concrete, lived experience' (Seigfried 1992, p. 79). Indeed, as a theorist and psychotherapist, Jung devoted his life to the study of human experience, understanding that the human psyche is the domain, the mediator,

and the content of experience. However, from his experimental studies with word associations, Jung realized that much of the psyche was beyond our awareness.

Jung clearly understood the implication of the discovery of the unconscious (Ellenberger 1970) for philosophy and psychology:

... all knowledge is the result of imposing some kind of order upon the reactions of the psychic system as they flow into our consciousness ... If ... the psychic system coincides and is identical with our conscious mind, then, in principle we are in a position to know everything that is capable of being known, i.e., everything that lies within the limits of the theory of knowledge. In that case there is no cause for disquiet ... But should it turn out that the psyche does not coincide with consciousness ... then our disquiet must rise to the point of agitation.

(Jung 1947/1954, para. 362)

Jung decried the fact that this disquiet was not attended to by social scientists of his generation who largely ignored the accumulation of evidence supporting the hypothesis of unconscious processes. This, in his view, created a kind of epistemological crisis:

Nobody drew the conclusion that if the subject of knowledge, the psyche, were in fact a veiled form of existence not immediately accessible to consciousness, then all our knowledge must be incomplete, and moreover to a degree that we cannot determine.

(Jung 1947/1954, para. 358)

Jung likened social science's refusal to consider the possibility of psychic reality to the intrapsychic processes of dissociation and repression which proved to be useful explanatory concepts in the psychoanalysis of individuals:

The position of psychology is comparable with that of a psychic function that is inhibited by the conscious mind: only such components of it are admitted to exist as accord with the prevailing trend of consciousness. Whatever fails to accord is actually denied existence, in defiance of the fact that there are numerous phenomena or symptoms to prove the contrary. Anyone acquainted with these psychic processes knows with what subterfuges and self-deceiving manoeuvres one sets about splitting off the inconvenience.

(Jung 1947/1954, para. 347)

I contend that the prevailing conscious trend at the heart of science's refusal to acknowledge the reality of the unconscious psyche is objectivism which, by its insistence on the primacy of the independent external object, denies the reality of the individual subject and the subject's essential role in all knowledge. Jung was emphatic in his disagreement with this part of objectivist doctrine:

By overvaluing our capacity for objective cognition we repress the importance of the subjective factor, which simply means a denial of the subject. Only a sick mind could

forget that cognition must have a subject, and that there is no knowledge whatever and therefore no world at all unless 'I know' has been said, though with this statement one has already expressed the subjective limitation of all knowledge.

(Jung 1921, para. 621)

In this statement, Jung is not denying a reality existing apart from our knowledge of it. (This view would negate a belief in the reality of the unconscious!) Rather, he is asserting that our knowledge of reality is always embodied, that is, connected to a subject or knower.

In a seminar given in 1925, Jung clearly expressed his position on the relation of the subject to the object – a position that served as a foundation for his epistemology. First he made a clear statement rejecting a folk version of objectivism:

The doctrine of *esse in re* was the point of view held by the antique world. Everything we perceive outside ourselves is so completely 'outside' as to be in no way conditioned by our way of perceiving it. It is even as though there were emanations from our eyes illuminating the object and making it visible to us, so little cognizance does this view take of the subjective side of seeing. This is the notion held by the uneducated man today.

(Jung 1989, p. 134)

Next he separated himself from relativism:

This conception was followed by that of *esse in intellectu solo*; that is, what we see is an image in the head and nothing but that. The question as to whether there are things beyond is left open. This would lead to solipsism, and makes of the world a giant hallucination.

(Jung 1989, p. 135)

Then Jung defined a position that we might call experientialism, internal realism, or psychic realism as follows:

Our idea is of *esse in anima*. This principle recognizes the objectivity of a world outside ourselves, but it holds that of this world we can never perceive anything but the image that is formed in our minds. We never see an object as such, but we see an image which we project out upon the object.

(Jung 1989, p. 134)

The *esse in anima* admits the subjective nature of our world perception, at the same time maintaining the assumption emphatically that the subjective image is the indispensable link between the individual entity, or entity of consciousness, and the unknown strange object.

(Jung 1989, p. 135)

Jung's ideas about *esse in anima* – or the reality of the psyche – articulate his mediatory science or middle way, which admits within psychic reality both the idea and the object. In his psychic realism there is a place for both subjectivity and objectivity, for the psyche is not only subjective but also objective.

However, the pair subject-object is not the same as inner-outer. Rather, inner subjective contents have an objective aspect, and outer objective events are conditioned by a subjective factor. Embedded in these statements is another point that is pivotal in Jung's epistemology: the idea that the image is not a copy of the object that is more or less 'correct' but is, in part, a generative activity of mind. An image is itself a psychic fact. His words articulate an interactionist epistemological position where our reality is the image and the image is a link or relation between a conscious 'subject' and an unknown or unconscious 'object', or, in the words of Abraham Maslow, 'Reality seems to be a kind of alloy between perceiver and perceived, a sort of mutual product, a transaction' (1966, p. 111). For Jung, the implications for epistemology were clear: Knowledge, in general, and our scientific concepts, in particular, 'may have general and proved validity'; at the same time, they 'will always be a product of the subjective psychological constellation of the investigator' (Jung 1921, para. 9). This epistemology is psychological rather than objectivist because it is grounded in human experience.

#### *Jung's commitment to science*

Throughout his life, Jung was often critical of 'science'. However, his angry tirades were, by and large, denunciations of objectivist science – or what Hayek (1978) calls 'scientism' – and its claims to absolute knowledge and privileged methods. For example, Jung voiced the opinion that the destructive influence of objectivist science is its 'claim to exclusiveness' (Jung 1977, p. 224). As noted in the previous section, the source of this destructive influence on Western thought (as embodied in both formal philosophy and folk psychology) may be located in the objectivist assumptions about epistemology that, according to Jung, have led to a kind of collective hubris in culture's claim to possess a *Weltanschauung*:

To have a *Weltanschauung* means to create a picture of the world and of oneself, to know what the world is and who I am. Taken literally, this would be too much. No one can know what the world is, just as little as can he know himself. But, *cum grano salis*, it means the best possible knowledge – a knowledge that esteems wisdom and abhors unfounded assumptions, arbitrary assertions, and didactic opinions. Such knowledge seeks the well-founded hypothesis, without forgetting that all knowledge is limited and subject to error.

(Jung 1928/1931, para. 698)

It seems to me the fatal error of every *Weltanschauung* so far has been that it claims to be an objectively valid truth, and ultimately a kind of scientific evidence of truth.

(Jung 1928/1931, para. 734)

Even as he condemned an objectivist approach to science, Jung throughout his life identified with the practice of science because he felt that a scrupulous

scientific attitude was necessary in order to avoid the error of objectivism where findings are viewed as definitive conclusions rather than as well founded hypotheses (e.g. Cohen 1976; Homans 1979). His perspective beyond objectivism caused him to view science, not as a body of established truths nor as an algorithmic method for obtaining knowledge, but rather as a practice (MacIntyre 1984). In this practice, the scientist actively seeks to understand with an open but critical attitude the phenomena that present themselves and attempts to validate this understanding not by appeals to authority but through unforced consensus based on evidence and argument. In short, Jung viewed science as practice in community. He identified, not with a body of established truths or with an infallible method of discovery, but with an evolving tradition – a tradition of seeking; of doubt, indecision, and scepticism; of individual investigation, critical argument, and consensual validation. ‘Science seeks truth because it feels it does not possess it ... My pursuit is science ... As a scientist I have to guard against believing that I am in possession of a final truth ... I have consciously and deliberately decided for [indecision]’ (‘Letter to Irminger’ 1944, in Jung 1975). This consciously held attitude of doubt is at the core of Jung’s identity as an empirical scientist. It also is at the core of a distinctly Jungian analytic attitude that consciously admits the value of uncertainty in analytic practice (Young-Eisendrath 1997).

Jung’s scientific activity embraced a methodology consistent with his epistemology. As with the latter, where there is not a rigid dichotomy between subject and object, so, in his methodology, there is no clear separation between the activity of the inquirer and the object under investigation. Jung’s quest for knowledge involved an inseparable mixture of both methods of inquiry and findings. For him, empirical findings and conclusions that result from scientific inquiry are not final products establishing objective truth independent of and beyond revision from further human activity and experience. Rather, they represent new data and assumptions from which to begin further inquiry:

Every science reaches its end in the unknowable. Yet it would not be science at all if it regarded its temporary limitations as definitive and denied the existence of anything outside them. No science can consider its hypotheses to be the final truth.

(Jung 1942/1954, para. 376)

Anticipating Kelly’s (1955) principle of constructive alternativism and his concept of the experience cycle, Jung saw this cyclical process of learning from experience as both empirical and creative. Indeed, he contended that our experience is the only way to develop knowledge and understanding if we accept the absence of an Archimedean point outside psyche. This is the sense in which he described himself as an empiricist:

I define myself as an empiricist ... Nothing would seem more nonsensical and fruitless for me than to speculate about things I cannot ... know ... I do not know, for example, how God could ever be experienced apart from human experience.

(‘Letter to Werblowsky’ 1952, Jung 1975)

In this statement, Jung clearly is excluding the reality of a god apart from human experience as a topic appropriate for consideration in psychological science and, at the same time, insisting that the human experience of god is something that must be addressed by those working in this field. It is also clear that, for Jung, direct experience does not refer only to sensory experience of material objects. Here he provides an example of his alignment with James's 'radical empiricism', a perspective that refuses to 'admit into its construction any element that is not directly experienced, nor exclude from them any element that is directly experienced' (James 1996, p. 48).

Jung's empiricism was not a matter of immaculate perception or passive observation, for Jung rejected the objectivist spectator theory of knowledge with its belief in the mind as a passive mirror of an external world (Rorty 1979). Rather, his method was a constructive one. In it, the investigator is a participant-observer whose attention could affect its object as the object affected the observer. Jung's empiricism was dialectical, always remaining within experience; however it was also creative and transformative, generating new levels of experience. He contended that experience is active, and, through participation with and in it, both the subject and the object of inquiry are transformed.

The transformation I describe is possible because Jungian 'object' is not the objectivist's 'object'. The latter is external and independent of human beings and human functioning while the Jungian object is, at least in part, unconscious and, therefore, psychical. Analytical psychology as envisioned by Jung is a discipline that recognizes the unity arising from the reciprocal relations of subject and object, knower and known. This is the realm of human experience and experienceable phenomena that Jung calls *psyche*. The fact that, from an epistemological viewpoint, the object is, in part, always psychical allows it not only to be viewed as strange but also to be personified as a stranger with whom one may communicate:

Although the *psyche* can never know anything *beyond* the *psyche* ... it is still possible for two strangers to meet within the sphere of the psychic. They will never know themselves as they are, but only as they appear to one another.

(Jung 1926/1946, para. 161)

Contrary to Nagy's (1991) assertion that Jung's epistemology rendered him a subjectivist and, thus, unable to contribute to mainstream science, Jung's perspective reflects a position recognized as legitimate by a number of philosophers of science (e.g. Bernstein 1991; Cohen 1976; Gould 1999; Hesse 1980; Mayr 1977, 1988; Rosenthal 1986).<sup>3</sup> William James (1948) contended that 'order [is] gradually won and always in the making' (p. 203) and asserted that ultimate truth – what no further experience will alter – cannot be determined until 'everyone who will ever lived has had his or her say' (p. 65). Echoing James, Jung insisted that knowledge has a consensual aspect:

Understanding is real and effective only when it is in accord with that of other reasonable beings. Then it becomes objective and connects with life.

(Jung 1914, para. 416)

Ultimate truth, if there be such a thing, demands the concert of many voices.

(Jung 1976, para. 1236)

Like Rorty (1979) who insisted that unforced consensus – not a comparison with objectivist standards of proof – affords knowledge its objectivity, Jung's commitment to science required a methodology that was both empirical and hermeneutic.

### *Jung's metaphysical framework*

Jung's psychological epistemology and his empirical/hermeneutic methods of inquiry are accompanied by a meta-theory of experience centred around a belief in psyche as a (potentially) experienceable realm in contrast to a non-experienceable, hypothetical realm where spirit and matter co-mingle. This hypothetical realm we come to know only indirectly, inferring its existence from its effects. Jung specifically acknowledged that this meta-theory is a schema derived from and providing a framework for experience. He summarized his position succinctly when he wrote:

The realm of the psyche is immeasurably great and filled with living reality. At its brink lies the secret of matter and of spirit. I do not know whether this schema means anything to you or not. For me it is the framework within which I can express my experience.

(‘Letter to Werblowsky’ 1952, in Jung 1975)

Jung's entire psychology is pragmatic, and his meta-theory is no exception. (In this respect, I believe that Jung's analytical psychology is closer to James's functional psychology than to Freud's psychoanalysis (Homans 1998).) Believing that an understanding of the limits of knowledge is essential for psychic balance, Jung's meta-theory is a self-regulating tool designed to correct the imbalance created by the assumption that anything can be known with absolute certainty. He writes,

... matter is just as inscrutable as mind. As to ultimate things we can know nothing, and only when we admit this do we return to a state of equilibrium.

(Jung 1931, para. 657)

On the other hand, Jung's model of the psychoid as the objective ‘other’ and the source of meaning and order counterbalances the Cartesian anxiety that comes with the realization that human knowledge must remain limited and provisional. From William James, Jung adopted the belief that concepts should have ‘cash value’. His meta-theoretical concepts of an experienceable psychic reality which contrasted with an unconscious and, therefore, a hypothetical psychoid (as the point of intersection of spirit and matter) provided Jung with instruments of value both for understanding our experience and for a therapy of psyche.

Jung's metaphysical position was new in two respects. First, Jung moved the central polarity from spirit vs. matter to ego consciousness vs. collective unconscious. Shifting emphasis away from the mind-body problem, he developed the concept of 'psychoid', a term used to describe the unexperienceable, unconscious realm lying at the threshold of experience and consciousness. Jung envisioned the psychoid as enveloping psyche, providing meaning to it. When one accepts the metaphysical construct of the psychoid, the relationship between psyche and non-psyche is freed from the presupposition that the latter must be either matter or spirit. Interactions between these two phenomena, thus, are appropriately viewed through a psychological lens and become amenable to empirical investigation.

Secondly, Jung deliberately maintained a sceptical – but non-objectivist and scientific – attitude toward this meta-theory. A metaphysical position, for him, was a psychic phenomenon – a useful idea – not a revealed truth foundational to psychology. 'Spirit', 'matter', and 'psychoid' are assumptions or hypothetical constructs in that we experience them as ideas and refine them into useful working concepts; to claim anything more is beyond the realm of psychology because 'psychology is a natural science that seeks to describe experienceable psychic phenomena' (Jung 1955/1956, para. 518a, p. vii). We have the idea that there is 'something' beyond experience. (That this idea exists is a psychic fact.) However, we can only describe this non-representational or pre-conceptual 'something' with concepts (which should remain hypothetical or provisional).

### Jung's psychological theory of mind

'All that is outside, also is inside', we could say with Goethe. But this 'inside', which modern rationalists are so eager to derive from the 'outside', has an *a priori* structure of its own that antedates all conscious experience.

(Jung 1938/1954, para. 187)

The psyche consists essentially of images. It is a series of images in the truest sense, not an accidental juxtaposition or sequence, but a structure that is throughout full of meaning and purpose.

(Jung 1926, para. 615)

As noted earlier, contemporary cognitive science is a 'broad discipline' devoted to 'the study of the mind ... covering everything from vision, memory, and attention to everyday reasoning and language' (Lakoff 1996, p. 3). Within this field, a number of scientists have shifted their attention from the mind-body problem to the mind-'mind' problem, convinced that consciousness rests on underlying structures that are not simply material. Jackendorff (1987), for example, refers to this level of organization underlying consciousness as the 'computational mind'. In his pursuit of an experiential and therapeutic psychology, Jung focused on several issues quite similar to those concerning

cognitive scientists. Like them, he was concerned with the problems of mind and meaning and was interested in the structured, generative unconscious mind (understood by Jung as a source of meaning) and its relationship to ego-consciousness.

In the sections that follow, I focus on two aspects of Jung's psychological framework that I believe are compatible with theories emerging today in cognitive science. In the first section, I focus on the underlying structures of the mind or psyche. Jung, with his hypothetical construct of archetypes, foreshadowed ideas that have become accepted in cognitive science (Minsky 1985; Varela, Thompson & Rosch 1992). These are that the individual psyche is rooted in universal organizing structures and that these structures are the source of meaning and understanding for human beings. I describe Jung's notion of archetypes and point out similarities between his ideas and those emerging in cognitive science today. In the next section, my attention shifts to Jung's understanding of the ways humans make sense of their experiences. I look at the roles of fantasy, metaphor, and imagination (see also Modell 1997) in this process, again noting links between Jung's ideas and contemporary psychological science.

*Archetypes: the embodied structures of the unconscious and image-schemata of cognitive science*

Drawing heavily on the cognitive science research of the 1970s and 1980s, Mark Johnson (1987) presents a convincing argument that meaning and order are tied to imaginatively structured bodily experience. First, he uses the epigram 'the body is in the mind' to point to the embodied nature of human consciousness. The 'body' is understood by Johnson to include, not only physiological structure, but also physical activity in the world. He asserts that these are 'embodied' in consciousness as (or in) abstract schematic structures which he calls 'kinesthetic' (p. 25) image schemata. Johnson contends that these schemata are abstractions from continually repeated physical experiences, and he suggests that these schemata provide a tight link between our sensorimotor activities and our conceptual systems.

Building upon ideas he and Lakoff offered in *Metaphors We Live By* (1980), Johnson (1987) further maintains that 'what is typically regarded as 'bodily' works its way up into the 'conceptual' and the 'rational' by means of imagination' (p. xxi). In his view, 'imagination is a basic image-schematic capacity for ordering our experience' (p. xix). Kinesthetic image-schemata are both abstractions from ordinary recurring experience and the source of rich, concrete images. It is through imaginative structures such as images and metaphors that our conceptual systems are ordered and developed. Thus consciousness is grounded in embodied structures (image-schemata) and extended through imaginal structures (images and metaphors).

Jung articulates a view quite similar to Johnson's (1987) when he promotes the archetypal image as the source of 'meaning and purpose' (Jung 1926, para. 615).

Jung's analysis of dreams and other explorations of the psyche led him to the idea that conscious and potentially conscious mental contents develop from and remain connected to ancient non-representational, but structured, forms of human functioning which provide their objective source and ground. In fact, rejecting innate ideas as the source, Jung contended that embodied, pre-conceptual patterns – archetypes – rather than disembodied principles, revealed truths, or authoritative rules – constitute the ground or foundation of our conceptual systems.

A number of points about Jung's theory of archetypes are worthy of note. First, it is through the concept of the archetype that Jung attempts to preserve what is right about an objectivist perspective without falling into the absolutist trappings of doctrinaire objectivism. An archetype, for Jung, organizes a complex of images within a universal structure. This structure provides a framework within which persons derive meaning from their experiences:

When one carefully considers [the] accumulation of data, it begins to seem probable that an archetype in its quiescent, unprojected state has no exactly determinable form but is itself an indefinite structure which can assume definite forms only in projection.

(Jung 1951a, para. 70)

The unconscious supplies as it were the archetypal form ... Consciousness immediately fills it with related or similarly representational material so that it can be perceived.

(Jung 1945/1954, para. 346)

The important point is that archetypes do constitute a structure – an unconscious *a priori* structure – that antedates conscious experience. As such, like Johnson's image schemes, archetypes are not concrete images but rather the source of rich images.

Second, again foreshadowing conclusions of Johnson (1987, 1993) and Lakoff (1987, 1993, 1996), through the concept of archetypes Jung posited non-representable abstractions that are also embodied psychic realities. Furthermore, archetypal patterns are embodied psychic realities not only because they constitute *a priori* conditions of present experience but also because they emerge with primordial experience:

These images are 'primordial' images in so far as they are peculiar to the whole species, and if they ever 'originated' their origin must have coincided with the beginning of the species.

(Jung 1951a, para. 78)

... the human psyche is a product of evolution which when followed back to its origins, shows countless archaic traits.

(Jung 1931a, para. 104)

The unconscious, as the totality of all archetypes, is the deposit of all human experience right back to its remotest beginnings ... a living system of reactions and aptitudes that determine the individual's life in invisible ways.

(Jung 1927/1931, para. 339)

Third, as irrepresentable sources of images and ideas, archetypes order experience without appearing in it, a point made about the mental order in general by F. A. Hayek in his seminal article, 'The primacy of the abstract' (1978). Since they do not appear directly in experience, archetypes must be inferred; since they are pre-conceptual, they cannot be reduced to conscious, conceptual thought. Archetypal structures are abstract in the sense that they are not directly sensible (i.e. concrete), yet archetypal structures are primary in that they provide the overarching framework for rational thought and directed action. Jung expressed this dependence of conscious thought and action on unconscious psychological structures in this way:

... mankind always stands on the brink of actions it performs itself but does not control.

(Jung 1936/1954, para. 49)

In the last analysis, psychic life is for the greater part an unconscious life that surrounds us on all sides.

(*ibid.*, para. 57)

Fourth, Jung understood that we lack direct or privileged access to these foundational structures: 'The archetype ... is alerted by becoming conscious and takes its color from the individual consciousness in which it happens to appear' (Jung 1951a, para. 6). The subjective factor or individual knower remains connected to and is inseparable from precepts and concepts. An observation, theory, or world view always bears the stamp of the individual subject. This psychological standpoint is constructive in that, through the interplay of subject and object or ego and other, both risk the possibility of mutual transformation (e.g. Edinger 1992, Young-Eisendrath 1997).

Finally, a pluralism is evidenced by the fact that there is a multiplicity of archetypes. While they provide the ground and foundation for our consensual, objective reality, archetypes are non-reducible wholes, each with its own structure:

You cannot explain one archetype by another; that is, it is impossible to say where the archetype comes from, because there is no Archimedean point outside the *a priori* conditions it represents.

(Jung 1938/1954, para. 140, n. 27)

Because human conceptual systems remain connected to and bear the stamp of the individual subject and because conceptual systems may be grounded in different, incommensurable archetypal structures, Jung maintained that

... in the case of psychological theories the necessity of a plurality of explanations is given from the start ... Whatever we strive to fathom with our intellect will end in paradox and relativity.

(Jung 1921, para. 856)

This is not, however, an endorsement of radical relativism, for Jung believed that we may develop theories and practices that are internally consistent and generate stable knowledge. It simply means that we cannot obtain the one, grand, unifying theory of theories (that correctly mirrors a disembodied reality) envisioned by the objectivist.

### *Image, imagination and imaginative structures of the mind*

According to Jung, 'An archetypal content expresses itself first and foremost in metaphors' (Jung 1940). He would have agreed with George Lakoff (1987, 1993, 1996) who asserts that metaphor is not a figure of speech but a mode of thought. That is, metaphor is a fundamental psychic process. In Jung's psychological theory, images are constrained by the archetype's psychoid structure and, because they are constrained by the objective psyche, are inherently meaningful. In fact, Jung grounded meaning in the image:

Image and meaning are identical; as the first takes shape, so the latter becomes clear. Actually, the pattern needs no interpretation: it portrays its own meaning.

(Jung 1947/1954, para. 402)

Returning to an idea that has been central to my argument, to understand Jung's position, one must comprehend image and meaning in a non-objectivist sense, free of objectivism's assumptions about representation and 'correspondence'. Meaning is not correspondence between a representation and its referent – between a symbol (image) and the external world – as objectivist semantics maintains. Similarly, images are not representations of a pre-given external world. Jung was clear on this point and deliberately used the word 'contents' rather than 'representations' in an effort to avoid the objectivist connotations of the latter term. He explained:

... the word 'representation' [is] obsolete ... since it suggests a subject to whom something is present or 'presented'. But we can easily get around this difficulty by speaking, not of 'representation' or 'perceptions', but of contents, as I usually do.

(Jung 1947/1954, para. 352)

When I speak of 'image' I do not mean the psychic reflection of an external object, but a ... *fantasy-image* ... This image depends much more on unconscious fantasy

activity, and as the product of such activity it appears more or less abruptly in consciousness ...

(Jung 1921, para. 743)

Jung consciously abandoned the ocular metaphors of objectivism and understood an image not as a photographic copy but as a manifestation of psychic reality that is full of meaning and purpose. An image does not have univocal meaning; it cannot be exhaustively defined or reduced because it is a particular constellation of an irrepresentable universal psychoid structure. As a content or spontaneous expression of psyche, an archetypal image is both a psychic fact and an inherently meaningful metaphor.

It is also important that we understand that in his psychology, Jung understood the psyche or mind as a dynamic system within which opposites are at play:

There is no consciousness without discrimination of opposites. This is the paternal principle, the Logos, which eternally struggles to extricate itself from the primal warmth and primal darkness of the maternal womb; in a word, from unconsciousness.

(Jung 1938/1954, para. 178)

From the Jungian standpoint, meaning is revealed and elaborated in the active interplay between individual, subjective consciousness and the collective, objective unconscious – that is, in the interplay of a reflective conceptual system and pre-conceptual experiential structures that are meaningful to begin with. The interplay of images does more than reveal meaning, it creates meaning. Or to state it more boldly, imagination is part of the process that transforms our experience and shapes our reality:

Imagination is the creative source of all that has made progress possible to human life ... The symbol [image] ... represents an attempt to elucidate, by means of analogy, something that still belongs entirely to the domain of the unknown, or something that is yet to be.

(Jung 1916, paras. 492–4)

Jung's idea that the differentiation of opposites is a creative and potentially therapeutic human activity anticipated George Kelly's (1955) seminal effort to construct a cognitive theory of personality. More recently the role of the cognizing subject in differentiating and classifying experience beyond a basic level has been demonstrated brilliantly by Rosch and her colleagues (e.g. Rosch 1975, 1977; Rosch & Lloyd 1978; Rosch & Mervis 1975; Rosch, Mervis, Gray, Johnson & Boyes-Braem 1976).

For Jung the process by which the image emerges into consciousness from pre-conceptual structure is one of imaginative, metaphorical projection. The image that emerges is inherently meaningful because it is the result of archetypal structure and image-based reasoning – what Jung called non-directed

fantasy thinking. Again, we must remember that, for Jung, non-directed fantasy thinking or imagination is not an isolated function or simply one human capability among many. As the creative source, imagination permeates all psychic functions:

Fantasy is just as much feeling as thinking; as much intuition as sensation. There is no psychic function that, through fantasy, is not inextricably bound up with the other psychic functions. Sometimes it appears in primordial form, sometimes it is the ultimate and boldest product of all our faculties combined. Fantasy seems to be the clearest expression of the specific activity of the psyche. It is ... where, like all psychological opposites, the inner and outer worlds are joined together in living union.

(Jung 1921, para. 78)

In Jung's psychology, fantasy or imagination is both generative and synthetic. As generative, fantasy is fertile ground from which spring subject and object; as synthetic, fantasy is a weaver that brings together the self and the world in a cosmos, universe, or unitary reality.

## Conclusion

There are many different psychologies in existence ... Psychology is not a religious creed but a point of view and when we are human about it we may be able to understand each other.

(Jung 1976, para. 279)

[Psychology] is, in fact, the coming to consciousness of the psychic process, but it is not, in the deeper sense, an explanation of this process, for no explanation of the psychic can be anything other than the living process of the psychic itself.

(Jung 1947/1954, para. 429)

Paradox ... does more justice to the *unknowable* than clarity can do, for the uniformity of meaning robs the mystery of its darkness and sets it up as something that is *known*. That is a usurpation, and it leads the human intellect into hybris by pretending that it, the intellect, has got hold of ... it. The paradox therefore reflects a higher level of intellect, and, by not forcibly representing the unknown as known, gives a more faithful picture of the real state of affairs.

(Jung 1942/1954, para. 417)

My chief aim in this paper has been to foster a dialogue between analytical psychology and cognitive science. To this end, I have suggested that Jung was a pioneer in the development of non-objectivist psychologies and that he may be viewed as an early traveller on a path pursued today by some contemporary cognitive scientists:

[A] non-objectivist (and at best also non-subjectivist) conviction is slowly growing in the study of cognition ... [There is] the growing conviction that cognition is not the

representation of a pre-given world by a pre-given mind but is rather the enactment of a world and a mind on the basis of a history of the variety of actions that a being in the world performs. [This] enactive approach takes seriously, then, the philosophical critique of the idea that the mind is a mirror of nature but goes further by addressing this issue from within the heartland of science.

(Varela, Thompson & Rosch 1992, p. 9)

I have also pointed out other similarities between Jung's interests and those of contemporary cognitive scientists. Jung was concerned with the problems of mind and meaning. Furthermore, he pursued the ideas of the mind as a non-unity, as an opponent process, as embodied, and as an imaginative (metaphorical) process – all themes being developed in cognitive science today. However, it is the difference in aims between analytical psychology and cognitive science that makes Jung more than a historic figure and makes his work a valuable contribution to modern psychology. Jung's concern was with the whole person – and with the person's wholeness. His psychology was largely experiential, descriptive, and therapeutic. In contrast, cognitive scientists focus on partial systems and particular problems. Their aims are more experimental, theoretical, and explanatory. While the similarities make a dialogue possible, the differences make the dialogue potentially fruitful.

While Jung felt that non-objectivist science was the only path to knowledge, he felt that, ultimately, the question of meaning was beyond science. In *Memories, Dreams, and Reflections* (1963), Jung wrote:

We receive knowledge of nature only through science, which enlarges consciousness; hence deepened self-knowledge also requires science, that is, psychology.

(p. 331)

On the other hand, in the same volume he also wrote:

I cannot employ the language of science to trace this process of growth [the self realization of the unconscious] in myself, for I cannot experience myself as a scientific problem. In science, I missed the factor of meaning.

(p. 72)

Science is a necessary tool for enlarging consciousness, but meaning and self-knowledge of our wholeness lie outside the field of science because, at the core of human nature (the unconscious and its contents), 'we are unable to comprehend its essence cognitively and set rational limits to it' (p. 331). Thus,

... a view of the world which adequately explains the meaning of human existence in the cosmos ... springs from our psychic wholeness, from the cooperation of consciousness and unconsciousness.

(p. 34)

What was missing in science, for Jung, was the imaginal structure of metaphor or myth:

Myth is more individual and expresses life more precisely than does science.

(p. 3)

Myth, like metaphor, springs from the unconscious, the source of meaning and wholeness. Science is the product of consciousness. Both myth and science are necessary because each can become stuck. Science without wonder and imagination tends to degenerate into ‘doctrinaire rigidities’, and myth without critical argument and empiricism becomes ‘hypostatization of mere phantasms’ (p. 311).

While science may be contrasted with myth to emphasize the importance of imagination, science may also be contrasted with experience to emphasize the importance of wholeness. Scientific activity is only one type of human experience. Varela, Thompson and Rosch (1992) clearly see its practical and limited role. Believing that ‘science and human experience are inseparable partners’ (p. 123), they write, ‘Experience and scientific understanding are like two legs without which we cannot walk’ (p. 14). In fact, a main theme of Varela, Thompson and Rosch’s book on cognitive science is that of the importance of both science and experience and of the circulation between them. This is yet another similarity between Jung and cognitive science, for clearly Jung also called for a circulation between our phenomenal everyday experience – which includes myths, traditions, folk theories, and imaginative products such as dreams – and science. This circulation is stated more generally in Jungian thought as the relations between the unconscious and consciousness.

Realizing that empirical knowledge could never stand alone, independent of human beings, their bodies, their cultures, and their imaginations, Jung envisioned psychology as a unifying science that admitted both the idea and the object and as a sceptical science that would not assume transcendent Platonic ideas (objective idealism) or immutable Newtonian particles (objective materialism) as foundational. Neither philosophy nor physics is foundational to psychology, the study of the mind. Instead, new metaphors of circulation and balance are replacing that of ‘the foundation’ in non-objectivist scientific psychologies.

I have tried to cite cognitive science literature that is closest to analytical psychology. Other branches of cognitive science such as artificial intelligence, neuropsychology and evolutionary science may also be fruitfully pursued by Jungian psychologists in advancing analytical psychology and participating in ‘the grand conversation of science’.

## TRANSLATIONS OF ABSTRACT

Dans cet article l'auteur développe l'idée que l'épistémologie non objectiviste, bien que scientifique, de Jung, et ses méthodes empiriques/herméneutiques d'investigation situent celui-ci dans une tradition psychologique qui, de bien des manières, commença avec William James et, aujourd'hui, trouve son expression dans le travail de nombreux cognitivistes scientifiques non jungiens. Dans un effort ayant pour but d'ouvrir le dialogue entre les jungiens et les savants appartenants à des traditions intellectuelles proches, l'auteur s'applique à dégager des évidences issues du corpus théorique de Jung montrant que, comme William James, Jung a intentionnellement rejeté les prétentions absolutistes de l'objectivisme et de la position opposée à ce dernier – à savoir celle qui défend le 'tout est possible' au nom du relativisme, l'émotivisme, ou le subjectivisme. Jung s'est quant à lui frayé un chemin qui l'a amené à la position métapsychologique similaire à celle du réalisme interne (Putnam 1981), ou celle de l'expérialisme (Lakoff 1987), et à une théorie psychologique donnant une place centrale à la fois à la structure cognitive inconsciente et à l'imagination. C'est ce qu'il a nommé une 'science médiatrice'. Les théories psychologiques développées dans le cadre de cette science médiatrice représentent une première articulation de constructions clés qui sont utilisées actuellement par de nombreux cognitivistes scientifiques qui cherchent à comprendre comment nous attribuons un sens à un vécu donné.

---

In dieser Arbeit argumentiert der Autor, daß Jungs nicht-objektivistische – jedoch wissenschaftliche – Erkenntnistheorie und seine empirisch/hermeneutischen Untersuchungsmethoden ihn in eine psychologische Tradition plazieren, die in vieler Hinsicht mit William James begann und heute ihren Ausdruck in der Arbeit vieler nicht-Jungianischer kognitiver Wissenschaftler finden. In einem Versuch, den Dialog zwischen Jungianern und Fachleuten in verwandten intellektuellen Traditionen zu ermutigen, präsentiert der Autor Belege aus dem Jungschen Werk, die zeigen, daß Jung – wie William James – Jung absichtlich absolutistische Ansprüche auf Objektivismus und dessen Gegenposition, 'anything goes' Relativismus, Emotivismus oder Subjektivismus, ablehnte. Stattdessen formte Jung einen Pfad, der zu einer meta-psychologischen Position führte, die dem inneren Realismus (Putnam 1981) oder Experientalismus (Lakof 1987) ähnelte, sowie zu einer theoretischen Psychologie, die sowohl der unbewußten kognitiven Struktur als auch der Imagination einen zentralen Platz einräumte. Dies nannte er eine "vermittelnde Wissenschaft". Die psychologischen Theorien, die innerhalb dieses Rahmens einer vermittelnden Wissenschaft entwickelt wurden, stellen eine frühe Formulierung von Schlüsselkonstrukten dar, die derzeit von einer Reihe von kognitiven Wissenschaftlern verwendet werden, die zu verstehen versuchen, wie wir Sinn aus Erfahrung gewinnen.

---

In questo lavoro l'autore sostiene che l'epistemologia junghiana – non-oggettiva, eppure scientifica- e il suo metodo empirico/ermeneutico di ricerca lo situa all'interno di una tradizione psicologica che, da molti punti di vista, iniziò con William James e oggi trova espressione nel lavoro di molti scienziati cognitivisti non junghiani. Nel tentativo di incoraggiare un dialogo tra junghiani e studiosi con tradizioni intellettuali

simili, l'autore porta delle prove prese dal corpo del lavoro junghiano che dimostrano che Jung, come William James, rifiutò consapevolmente le dichiarazioni assolutiste dell'oggettivismo, nonchè la posizione opposta – il relativismo del “tutto va bene”, il predominio dell'emotività, il soggettivismo. Al contrario Jung costruì lentamente un sentiero che portò ad una posizione metapsicologica simile a quella del realismo interno (Putnam 1981) o dell'esperimentalismo (Lakoff 1987) e ad una psicologia teoretica che diede uno spazio centrale sia alla struttura cognitiva inconscia che all'immaginazione. Ciò egli la definì una “scienza di mediazione”. Le teorie psicologiche sviluppatesi all'interno della struttura di tale scienza mediatrice rappresentano una prima articolazione dei costrutti chiave che sono attualmente usati da un buon numero di scienziati cognitivisti che cercano di capire in che modo noidiamo un senso all'esperienza.

---

En este trabajo el autor que la epistemología Junguiana no objetivista – aunque científica-y sus métodos de investigación empírico/hermenéutico lo coloca dentro de una tradición psicológica que, en muchos aspectos, comenzó con William James y, hoy, ha encontrado está encontrando expresión en científicos cognitivos no Junguianos. En un esfuerzo para estimular el diálogo entre Junguianos y estudiosos dentro de la tradición intelectual, el autor presenta evidencia desde el cuerpo de trabajo junguiano que demuestra que, como William James, Jung rechaza intencionalmente el absoluto reclamo del objetivismo y la posición contraria – ‘todo vale’, relativismo, emotivismo, o subjetivismo. Por el contrario, Jung forjó un camino que conduce a la posición metapsicológica similar al realismo interno (Putman, 1981) o al experiencialismo (Lakoff, 1987) y a una psicología teórica que diera un lugar central a ambos, la estructura cognitiva del inconsciente y a la imaginación. Así el estructuró una ‘ciencia mediadora’. Las teorías psicológicas desarrolladas dentro de este marco referencial de ciencia mediadora representa una temprana articulación de llaves de constructos que son usadas actualmente por buen número de científicos cognitivos que buscan entender como podemos darle sentido a la experiencia.

## Notes

1. Homans (1998) likens depth psychology to ‘a large river with many tributaries, one of which is Freud’s psychoanalytic movement, another Jung’s analytical psychology movement, and another James’s functional psychology’ (p. 158). In a recent book sponsored by the American Psychological Association entitled *Reinterpreting the Legacy of William James*, Taylor summarizes the following major ideas that constitute the core of the Jamesian legacy:

James advocated a psychology of immediate experience.

James enjoined psychologists to study not only the stream of our immediate experience, but also the fall of the threshold of waking awareness and the descent of consciousness into the body.

James conceived of knowledge in terms of a noetic pluralism.

James envisioned that his radical empiricism would become an internal method of self-development (p. 6).

While it is beyond the scope of this paper to discuss James or the Jamesian legacy in detail, I will, however, suggest links between James's and Jung's thought and contemporary trends in the philosophy of science and cognitive science.

2. Jung also rejected transcendent idealism. In his discussion of the mother archetype, he writes:

In former times ... it was not too difficult to understand Plato's conception of the idea as supraordinate and pre-existent to all phenomena. 'Archetype', far from being a modern term, was already in use before the time of St. Augustine and was synonymous with 'Idea' in the Platonic usage. When the *Corpus Hermeticum* describes God as ... the 'archetypal light', it expresses the idea that he is the prototype of all light; that is to say, pre-existent and supraordinate ... to all phenomena in which the 'maternal', in the broadest sense of the term, is manifest. But I am an empiricist, not a philosopher; I cannot let myself presuppose that my peculiar temperament, my own attitude to intellectual problems, is universally valid. Apparently this is an assumption in which only the philosopher may indulge, who always takes it for granted that his own disposition and attitude are universal and will not recognize the fact ... that his 'personal equation' conditions his philosophy. As an empiricist, I must point out that there is a temperament which regards ideas as real entities and not merely as *nomina*.

(Jung 1938/1954, para. 149)

For the introvert, ultimately the idea is the prime mover. For the extrovert, a product.

(Jung 1921, para. 737)

Here Jung consciously champions the rebirth of the Platonic spirit by asserting the validity and reality of the idea in its own right, not as secondary or derived from objects. He, however, rejects Platonic philosophy which affords ideas a status not unlike that which objectivists apply to objects. For Jung, the common foundation of both ideas and objects is the structure of the individual human mind and the embodied, imaginative human cognition.

3. Unlike Nagy (1991), Brooke (1991) understands and appreciates Jung's attack on objectivism. He, however, is cautious of Jung's commitment to science and empiricism, dismissing it as an 'appeal to modern physics for defense counsel' stemming from Jung's 'cozy relationship with several eminent natural scientists' (p. 59). Both Nagy and Brooke, in my view, miss the opportunity to interpret Jung in light of his own mediating theory. Nagy does not acknowledge that, while rejecting objectivism, Jung embraced a notion of psychic reality or psychological objectivity. Brooke, in turn, fails to appreciate that Jung's psychology, although non-objective, was empirical – focused on and grounded in experience.

## References

- Bernstein, R. J. (1991). *Beyond Objectivism and Relativism: Science, Hermeneutics, and Praxis*. Philadelphia: University of Pennsylvania Press.
- Bransford, J. & McCarrell, N. S. (1974). 'A sketch of a cognitive approach to comprehension: Some thoughts about understanding and what it means to comprehend'. In *Cognition and the Symbolic Processes*, eds. W. Weiner & D. S. Palermo. Hillsdale, NJ: Lawrence Erlbaum.
- Bright, G. (1997). 'Synchronicity as a basis of analytic attitude'. *Journal of Analytical Psychology*, 42, 4, 613–35.

- Brooke, R. (1991). *Jung and Phenomenology*. London: Routledge.
- Bruner, J. (1990). *Acts of Meaning*. Cambridge: Harvard University Press.
- Cohen, E. (1976). C. G. Jung and the Scientific Attitude. New York: Philosophical Library.
- Edinger, E. F. (1992). *Transformation of the God-Image: An Elucidation of Jung's 'Answer to Job'*. Toronto: Inner City Books.
- Ellenberger, H. F. (1970). *The Discovery of the Unconscious*. New York: Basic.
- Folse, H. J. (1985). *The Philosophy of Niels Bohr: The Framework of Complementarity*. New York: North-Holland.
- Franks, J. (1974). 'Toward understanding'. In *Cognition and the Symbolic Processes*, eds. W. Weiner & D. S. Palermo. Hillsdale, NJ: Lawrence Erlbaum.
- Gardner, H. (1987). *The Mind's New Science: A History of the Cognitive Revolution*. Cambridge: Harvard University Press.
- Gould, S. J. (1999). *Rock of Ages: Science and Religion in the Fullness of Life*. New York: Ballantine.
- Hayek F. A. (1978). 'The primacy of the abstract'. In *New Studies in Philosophy, Politics, Economics and the History of Ideas*. Chicago: University of Chicago Press.
- Hesse, M. (1980). *Revolutions and Reconstructions in the Philosophy of Science*. Brighton, UK: Harvester.
- Hillman, J. (1983). *Archetypal Psychology: A Brief Course*. Dallas: Spring.
- Homans, P. (1979). *Jung in Context: Modernity and the Making of a Psychology*. Chicago: University of Chicago Press.
- (1998). 'The plight and promise of contemporary psychoanalysis in the light of its social history'. *Journal of Analytical Psychology*, 43, 1, 155–80.
- Jackendorff, R. (1987). *Consciousness and the Computational Mind*. Cambridge, MA: The MIT Press.
- James, W. (1948). *Essays in pragmatism*. New York: Hafner.
- (1996). *Essays in Radical Empiricism*. Lincoln, NE: University of Nebraska Press.
- Johnson, M. (1987). *The Body in the Mind*. Chicago: University of Chicago Press.
- (1993). *Moral Imagination: Implications of Cognitive Science for Ethics*. Chicago: University of Chicago Press.
- Jung, C. G. (1914). 'On psychological understanding'. CW 3.
- (1916). 'The structure of the unconscious'. CW 7.
- (1917). 'The psychology of the unconscious'. CW 7.
- (1921). *Psychological Types*. CW 6.
- (1926). 'Spirit and life'. CW 8.
- (1926/1946). 'Analytical psychology and education: three lectures'. CW 17.
- (1927/1931). 'The structure of the psyche'. CW 8.
- (1928). *Two essays on Analytical Psychology*. CW 7.
- (1928/1931). 'Analytical psychology and *Weltanschauung*'. CW 8.
- (1931). 'Basic postulates of analytical psychology'. CW 8.
- (1931a). 'Archaic man'. CW 10.
- (1936/1954). 'Archetypes of the collective unconscious'. CW 9i.
- (1938/1954). 'Psychological aspects of the mother archetype'. CW 9i.
- (1940). 'The psychology of the child archetype'. CW 9i.
- (1942/1954). 'Transformation symbolism in the mass'. CW 11.
- (1945/1954). *Alchemical Studies*. CW 13.
- (1947/1954). 'On the nature of the psyche'. CW 8.
- (1951). 'Fundamental questions of psychotherapy'. CW 16.
- (1951a). *Aion*. CW 9ii.
- (1955/1956). *Mysterium Coniunctionis*. CW 14.
- (1963). *Memories, Dreams and Reflections*, ed. A. Jaffé. New York: Pantheon.

- (1975). *Letters*. 2 vols, (eds.) G. Adler & A. Jaffé. Princeton, NJ: Princeton University Press.
- (1976). *The Symbolic Life*. CW 18.
- (1977). *C. G. Jung Speaking*, (eds.) W. McGuire & R. F. C. Hull. Princeton, NJ: Princeton University Press.
- (1989). *Analytical Psychology: Notes of the Seminar Given in 1925*, ed. W. McGuire. Princeton, NJ: Princeton University Press.
- Kelly, G. A. (1955). *The Psychology of Personal Constructs*. Volume one: *A Theory of Personality*. New York: Norton.
- Kirsch, T. (1988). 'Jungian analysis: the impossible profession'. In *The Analytic Life: Personal and Professional Aspects of Being a Jungian Analyst*, ed. The New England Society of Jungian Analysts. Boston: Sigo.
- Lakoff, G. (1987). *Women, Fire, and Dangerous Things: What Categories Reveal about the Mind*. Chicago: University of Chicago Press.
- (1993). 'The contemporary theory of metaphor'. In *Metaphor and Thought*, ed. A. Ortony. Cambridge: Cambridge University Press, 2nd ed.
- (1995). 'The neuro-cognitive self: conceptual research in the twenty-first century and re-thinking of what a person is'. In *The Science of the Mind: 2001 and Beyond*, eds. R. Solso & D. Massaro. New York: Oxford University Press.
- (1996). 'Sorry, I'm not myself today: The metaphor system for conceptualizing the self'. In *Spaces, Worlds, and Grammar*, eds. G. Fauconnier & E. Sweetser. Chicago: The University of Chicago Press.
- Lakoff, G. & Johnson, M. (1980). *Metaphors We Live By*. Chicago: University of Chicago Press.
- MacIntyre, A. (1984). *After Virtue*. Notre Dame, IN: Notre Dame University Press.
- Maslow, A. H. (1966). *The Psychology of Science*. South Bend, IN: Gateway Editions.
- Mayr, E. (1977). *This is Biology: The Science of the Living World*. Amherst, MA: University of Massachusetts Press.
- (1988). *Toward a New Philosophy of Biology: Observations of an Evolutionist*. Cambridge: Harvard University Press.
- Merritt, D. (1988). 'Jungian psychology and science: A strained relationship'. In *The analytic life: Personal and professional aspects of being a Jungian analyst*, ed. The New England Society of Jungian Analysts. Boston: Sigo.
- Minsky, M. (1985). *The Society of Mind*. New York: Simon & Schuster.
- Modell, A. H. (1997). 'The synergy of memory, affects, and metaphor'. *Journal of Analytical Psychology*, 42, 1, 105–17.
- Nagy, M. (1991). *Philosophical Issues in the Psychology of C. G. Jung*. Albany: State University of New York Press.
- Piaget, J. (1973). 'The affective unconscious and the cognitive unconscious'. In *The Child and Reality*. New York: Viking.
- Polanyi, M. (1966). *Personal Knowledge*. New York: Harper & Row.
- Putnam, H. (1981). *Reason, Truth, and History*. Cambridge: Cambridge University Press.
- Rorty, R. (1979). *Philosophy and the Mirror of Nature*. Princeton, NJ: Princeton University Press.
- Rosch, E. (1975). 'Cognitive representations of semantic categories'. *Journal of Experimental Psychology: General*, 104, 192–233.
- (1977). 'Human categorization'. In *Studies in Cross-Cultural Psychology*, ed. N. Warren. London: Academic Press.
- Rosch, E. & Loyd, B. B. (eds.) (1978). *Cognition and Categorization*. Hillsdale, NJ: Lawrence Erlbaum.
- Rosch, E. & Mervis, C. (1975). 'Family resemblances: studies in the internal structure of categories'. *Cognitive Psychology*, 8, 382–439.

- Rosch, E., Mervis, C., Gray, W., Johnson, D. & Boyes-Braem, P. (1976). 'Basic objects in natural categories'. *Cognitive Psychology*, 7, 573–605.
- Rosenthal, S. B. (1986). *Speculative Pragmatism*. Amherst: University of Massachusetts Press.
- Samuels, A. (1985). *Jung and the Post-Jungians*. London: Routledge & Kegan Paul.
- Shamdasani, S. (1998). 'From Geneva to Zürich: Jung and French Switzerland'. *Journal of Analytical Psychology*, 43, 1, 115–26.
- Seigfried, C. H. (1992). 'The world we practically live in'. In *Reinterpreting the Legacy of William James*, ed. M. Donnelly. Washington: American Psychological Association.
- Spiegelman, J. M. (1988). 'The impact of suffering and self-disclosure on the analyst'. In *The Analytic Life: Personal and Professional Aspects of Being a Jungian Analyst*, ed. The New England Society of Jungian Analysts. Boston: Sigo.
- Taylor, E. (1992). 'The case for a uniquely American Jamesian tradition in psychology'. In *Reinterpreting the Legacy of William James*, ed. M. Donnelly. Washington: American Psychological Association.
- (1996). *William James on Consciousness Beyond the Margin*. Princeton, NJ: Princeton University Press.
- (1998). 'Jung before Freud, not Freud before Jung: the reception of Jung's work in American psychoanalytic circles between 1904 and 1909'. *Journal of Analytical Psychology*, 42, 1, 97–114.
- Varela, F. J., Thompson, E. & Rosch, E. (1992). *The Embodied Mind*. Cambridge, MA: The MIT Press.
- Von Franz, M.-L. (1992). *Psyche and Matter*. Boston & London: Shambhala.
- Young-Eisendrath, P. (1997). 'Jungian constructivism and the value of uncertainty'. *Journal of Analytical Psychology*, 42, 4, 637–52.

[MS first received July 1998, revised and resubmitted April 1999, final version August 1999]