

# Mindful Pedagogy: Invoking the Concept of Play Beyond the Confines of Recess

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Résumé de l'article

Recess is often a topic overlooked in pedagogical theory due to its presumed simplicity. The essence of recess connects with play as a physical counterpart to a well-rounded education. In this article we explore the relationship play has with recess and well-being and explore its pragmatikos (systematic usefulness) as regards schooling in lieu of deep ecological frameworks of systems (wholism) theory and systemic, nonlinear dynamics. We argue that recess in its current conceptualisation—in contradistinction to work or study—is a counterfeit to metaphysical play based on the writings of Ananda K. Coomaraswamy who sheds light on its spiritual premise. By bringing to the forefront metaphysical Ideas of play we encounter similitudes between the Platonic doctrine of *ēdūcere* and anamnesis with Buddhist phenomenology, especially regarding the practice of Mindfulness (*sati*); both extol a “recollection” as opposed to a “memorisation” which arguably occupies much of Westernised curriculum. Finally, in traditional, premodern education, emphasis was placed on Spirit and heartfelt intuition, a remembrance of who we are, our Buddha-nature or Christhood, not on cerebral ratiocination whose mental operation, according to Plato, was tenebrous and illusory. Our aspiration is not an education that includes mindfulness, rather, a mindfulness-based education.



# Mindful Pedagogy: Invoking the Concept of Play Beyond the Confines of Recess

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## Then and Now: Systematic and Systemic Approaches to Learning and Play

Recess is a topic often overlooked in pedagogical theory due to its presumed simplicity. The essence of recess connects with *play* as a physical counterpart to well-rounded education. While it is no secret that recess is seen favourably by school children (and parents) in terms of their overall well-being, at the executive level recess has been a topic of debate for over a century: does *unstructured* activity take away from *structured* learning? While abolishment of recess is rare, the reduction of recess is commonplace (Pellegrini, 2008). We are inclined to contextualise such an argument as rooted in industrial metaphors of *learning*, especially as regards the *maximisation* of knowledge and acquisition of *theory*. But such a conception is fundamentally flawed as what exactly constitutes an “educated person” and what is the socio-cultural directive behind the exemplar of (post)modern “schooling?” While we leave those questions unanswered for now, consider the following tautology: maximising knowledge for the advancement and efficacious of learning—where learning is based upon rational or mental (cognitivist) concepts that abstract knowledge away from the body of the learner (hence “disembodied” learning)—would entail that recess (read play) should be canceled as it takes away from instrumental<sup>1</sup> study (read work).<sup>2</sup> Obviously balance is optimal, constituting a “deep ecological” perspective—a branch of philosophy advocating the inherent (*noninstrumental*) and inter-

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<sup>1</sup> Instrumentalising individuals means negating truth for utility: a subservience to *purposeful usefulness* in a *functional*—often hidden—social contract (Wilber, 2000).

<sup>2</sup> Tautology aside, such a model does exist in modern, Neo-Confucian ideologies of the Far East.

dependent worth of all sentient life in contradistinction to shallow or anthropocentric ecology—of *optimisation*. Systematically, recess has become a mechanical, parts-based approach for students to play after functioning in a socio-cultural directive of information acquisition. Ecologically, or systemically, recess as a temporary withdrawal, cessation, or “break” from (the banality of) classroom activity is revealing of a *symptom of*—rather than a *cure for*—the *uniformity* and instrumental activity of classroom curriculum. While rhythm in daily life—thereby school life—is beneficial, our purpose is to show that recess as “regimented relief” is a *counterfeit* to play in a spiritual (metaphysical) context; therefore, by back-tracking first through the ecological context, we argue that the reduction of play to recess inevitably detracts from the richness of play (and well-being) as it concerns mindfulness.

While many metaphors grace the process—or product—of teaching, some are clearly rooted in the industrialist mentality that gave rise to secular education. As Davis (2004) concluded, *instructing*, *informing*, *edifying*, *directing*, and *lecturing* stem from a rational worldview and *schooling*, *inculcating*, *conditioning*, *training*, and *re-mediating* categorise an empirical one; these objectivistic notions, bifurcated from religious and metaphysical thought, detail *episteme* in contradistinction to matters of intuition, consciousness, *gnosis*, and *transformation*. Ecological metaphors are still maturing in literature but Davis cited *conversing*, *hermeneutic listening*, *minding* or *mindful participation*, and *caring* as inter-objective (*social*) and holistic (*systems*) concerns of process-oriented pedagogy. We may illustrate the contrast between a school built on analysis and one built on systems with regard to curriculum goals. The etymology of curriculum (“course”) derives from Latin *currō* or *currere* which means “to run” and as Davis cleverly noted, curriculum is the *running of the course* rather than the *course to be run*; impersonal goals that re-enforce conventions stand in stark contrast to the original intent behind curriculum as a phenomenal, meaning-making process embodied in lived experience.

Having mentioned rationality, it is prudent to note its relationship to analysis. The reason analytic thinking is reductionistic derives from its root, *analysis* (Greek: ἀνάλυσις), characterised as “dissolving;” analytical investigation breaks down a structure to its components to study them in the absence of the original interrelationships. Consequently, when structures are rebuilt they end up as machines with distinct parts called “gears” such as the greenhouse where soil complexity is removed for chemical substitutes (fertiliser, substrate, oil). Thus, a mechanistic-systematic approach to learning may involve uniforming students, normalising curriculum, and statistical grading; any further issues that arise become secondary or tertiary to the primary goal of graduation. On the other hand, the root of system(ic) and *synthesis* derives from Greek *synhistanai* meaning “to place together” (Capra, 1996, p. 27) since the whole is greater than the sum of its parts. From an ecological lens, therefore, any *issues* to be *systematically* rectified are really *systemic symptoms* stemming from the foundation or formulation of education. Since ecological literacy demands contextual sensitivity (Stone & Barlow, 2005) there are fundamental differences the roles curriculum, recess, and mindfulness play concerning the well-being of the student. For instance, when we see mindfulness as a means to alleviate stress in school, we are quick to point to its reactive context, for where does the stress originate and what becomes (or remains) the primary goal for the student thereafter? Should mindfulness be used as a method to relax the student and diffuse stress in order to continue along the path of modern gradation, then we have a mechanical approach to a socio-ecological problem. Whereas, if mindful participation is the primary goal that manifests inter-subjective meaning in connection with cognitive, affective, and moral growth toward the self-identity—and self-effacement in regard to consciousness growth—of the student, then we approach the concept of “learning” in an ecological manner. Therefore, there is a stark difference between an education built from diversity and diversity added onto uniform curriculum.

The *terminus a quo* for such quantitative notions was the convenience uniformity afforded over the *diversity* demanded by ecologically literate formulations of education; historically, the collapse to uniformity—and the *infra-human*<sup>3</sup> in anticipation of our metaphysical context—began when seventeenth century mechanistic imagery replaced sixteenth century humanistic sensibility (Toulmin, 1990). As Toulmin stated, “[o]ne aim of 17th-century philosophers [Descartes and contemporaries] was to frame all their questions in terms that rendered them *independent of context* [emphasis added]” (p. 21). Mechanisation reached its peak during the *industrial* age where certainty replaced humanism, formal logic replaced rhetoric, and permanence replaced the transitory; anything intrinsic (*qualitative*) to the human was *de facto* removed to perform monotonous tasks as replaceable (*atomistic*) units (*pure quantity*).

<sup>3</sup> Metaphysically, all *quality* was removed from *quantity*, leading to the conceptualisation that for the artisan, while the tool engendered the craft as a prolongation of the individual, the machine simply killed it (Guénon, 1945/2004).

Atomisation has technical accuracy over mechanisation as the latter may portray a lateral movement toward automation while the former is a descending movement toward reductionism; however, both have historically intertwined in an appeal to mass production—a truly quantitative term—as regards horticulture, Westernised education, and reductionist (*monological*<sup>4</sup>) scientific inquiry. These examples are rooted in ideals of progress which come under scrutiny from a deep ecological (*ecomasculinist*) and *ecofeminist* view of life that recognises that loss of habitat and culture—the hidden, thereby *unobservable* interiority of a social sphere—is counterproductive to strengthening and sustaining human value and *meaning*. While fact-oriented (as monological or subject-less) knowledge became the ideal, it begat a paradox. As Shiva (1989) argued, the “fact-value dichotomy is a creation of modern reductionist science [and], while being an epistemic response to a particular set of values, posits itself as independent of values” (pp. 26-27). Thus, (epistemic) truth became independent of who presents it and to whom; “for Descartes and his successors, timely questions were no concern of philosophy: instead, their aim was to bring to light permanent structures underlying all the changeable phenomena of Nature”<sup>5</sup> (Toulmin, 1990, p. 34). To us, the end result—Cartesian mechanism—was bound to be the conceptualisation of closed systems: predictable, determinable, and controllable. Such historic inheritance fragments our *information* age today.

### How We Arrived From Where We Began: A Mindless Journey in Modern Cognition

A brief history of cognition is merited, especially as it intimately connects the many topics we are exploring, such as reductionism, mind, learning, transformation, history, and so on. Etymologically, cognition (Greek: γνῶσις; Latin: *co-gnoscere*)—where the prefix *co-* implies “mutuality” or “togetherness” of a subject “to know” (*gnoscere*) its object—shares the same root as *gnosis* meaning a *knowledge* that bridges *known* (object) to *knower* (subject). In modern times the concept of epistemic knowledge (Greek: ἐπιστήμη, *epistēmē*) is far removed from its traditional context of identification, having a wholly “mental” or “scholarly” character; learning, then, is concomitant with erudition. And, as naturalistic knowledge grew, the (quantitative) mechanisms of mind, traditionally the (qualitative) domain of study for philosophers and psychologists, came under the scrutiny of cyberneticists and early cognitive scientists. Thus, the first—and still dominant—branch of cognitive science was intimately linked to *computation* and *mathematical logic* (Varela, Thompson, & Rosch, 1993). The school of thought was termed *cognitivism*. In short, cognitivists “introduced symbols as a way of bridging the need for a semantic or representational level with the constraint that this level be ultimately *physical* [emphasis added]” (p. 99). Thus, a computer connects symbols with their mapped meaning while operating only on their physical form; “the separation between form and meaning was the masterstroke that created the cognitivist approach—indeed, it was the same one that had created modern logic” (p. 99). But how do symbols acquire their meaning? By presupposing a linear map between form and meaning, which largely depends upon experience no less, “the form of the symbols is all that is left, and meaning becomes a *ghost* [emphasis added]” (p. 100). In other words, “genuine” knowledge was reduced *grosso modo* to *facts* divorced from the learner, the observed independent of the observer, and “truth” to mere representation of tangible (sensible) reality.

In cognitivism, on the basis of representationalism, both the phenomenological and physical body of the learner are neglected; moreover, our brains showcase “no rules, no central logical processor, nor does information appear to be stored in precise addresses” (Varela et al., 1993, p. 85) since biologically, “brains can be seen to operate on the basis of massive *interconnections* in a distributed form, so that the actual connections among ensembles of neurons change as a result of *experience* [emphases added]” (p. 85). The inflexibility of computational logic contradicted the flexibility and resiliency of our biological nature—usually without compromise of intelligence. Thus, in the model of cognitivism, “the mind was divided into two radically different regions, with an unbridgeable chasm between them—the subjective mental states of the person and the subpersonal cognitive routines [cyberneticist approach] implemented in the brain” (Thompson, 2007, p. 6). Cognitivism could offer no account of subjective experience and perpetuated cognition in a materialist form. And rather than solve the mind-body problem, it created “a new problem, the *mind-mind* problem. This problem is a version of what is known as the ‘hard problem of consciousness’” (p. 7). According to Varela et al. (1993), Ray Jackendoff attempted to remedy such an abysmal

<sup>4</sup> An empiric-analytic study of observables registered by senses and their technological extensions; or phenomena studied through behaviouristic or positivistic lenses of “it” or “object” languages (Wilber, 2000).

<sup>5</sup> A contradictory statement as the aim was to bring immutability to mutable structures.

situation of a computational mind dealing with subpersonal, symbolic, and unconscious processes and a phenomenological mind dealing with personal, conscious experience by postulating that conscious awareness could be reduced to an externalisation or projection of the computational mind. As a consequence, “his theory reveals the disunity of the cognizing subject [and thus pairs] cognitive science with a pragmatic, mindful, open-ended approach to human experience, such as we find in the [Eastern] mindfulness/awareness tradition” (Varela et al., 1993, p. 53). At first glance this is a promising bridge between East and West, but Varela et al. are not so easily deceived. Jackendoff, they argued,

assumes that everyday—largely mindless—experience provides access to all the relevant phenomenological evidence and that the phenomenological quest is limited to just that largely mindless state. He considers neither the possibility that conscious awareness can be progressively developed *beyond* its everyday form nor that such development can be used to provide direct insight into the structure and constitution of experience. (Varela et al., 1993, p. 54)

As an aside, Nelson (2012) outlined the difficulties of reconciliation between the Mindfulness practice known as *vipassana* (Sanskrit: *vipāśyanā*) and its abstraction into a secular schooling system based upon the Western paradigm of scientific psychology (and cognition); we wish only to add clarity to Nelson’s paper by stating that the difference between the mindfulness of the ancient East and contemporary West is nothing but the inner (meditative) and outer (empirical) paths of examination respectively. While all mental states—mindful or mindless—have their exterior correlate in brain waves, neural pathways, and so on, the latter can never explain inner experience; they are incommensurable.

In order to remedy the deficiencies of cognitivism, a second cognate system termed *connectionism* started with simple components that dynamically connect densely with local (neighbouring) components; “each component operates only in its local environment, [and alongside] the system’s network constitution, there is a global cooperation that spontaneously emerges” (Varela et al., 1993, p. 88). Without any need for a central processing unit, connectionism provided a model capable of rapid recognition, associative memory, and categorical generalization based upon what Capra (1996) called the “new sciences” of emergence,<sup>6</sup> network dynamics, nonlinear networks, or *complex systems*. As Varela explained, “the ‘old biology’ was based on ‘heteronomous units operating by a logic of correspondence,’ whereas the entire essence of the new biology is ‘autonomous units operating by a logic of coherence’” (as cited in Wilber, 2000, p. 48).

Moreover, symbolic computations were replaced by numerical, *nonsymbolic* operations; “a single, discrete symbolic computation would, in a connectionist model, be performed as a result of a large number of numerical operations that govern a network of simple units” (Varela et al., 1993, p. 99). In terms of learning, rather than divorce the mind from the body, connectionism implied the shift from the “idea of mind as an input-output device that processes information toward the idea of mind as an emergent and autonomous network” (p. 151). Yet, the connectionist model returned too far to its biological roots and collapsed the mind to the brain, leaving unresolved a *mind-in-brain* error! Therefore, cognitive processes were either instantiated in the brain abstracted from biology or represented mentally in symbolic (or subsymbolic) processes abstracted from environment.

To remedy these abstractions required a third cognate model, *embodied dynamicism*, which, to self-organising dynamic systems (connectionism) added “that cognitive processes emerge from the nonlinear and circular causality of continuous sensorimotor interactions involving the brain, body, and environment” (Thompson, 2007, pp. 10-11). Since cognition became an intrinsically *temporal*<sup>7</sup> phenomenon, the central metaphor became the mind as an *embodied dynamical system* in (and of) the (our) world. While this cognate system far surpassed its predecessors, it could not

<sup>6</sup> In this case a more ‘holistic’ approach was taken since ‘emergence’ entails that *the whole is more than the sum of its parts*. Global coherence was the emergence of local phenomena acting autonomously. Similarly, salt is the emergent property of sodium and chloride (plus trace minerals), which cannot explain salt simply based on the properties of sodium and chloride alone. Mathematically, we could write  $\text{Na} + \text{Cl} + \text{Na} \cap \text{Cl}$  (emergent property) = salt.

<sup>7</sup> In representationalism, the mind simply acts as a “mirror” to a pre-given world and is unassumed by time or environment, making learning a linear and disembodied process; as a corollary, teaching becomes mere transference of information.

adequately remedy human experience in light of phenomenological accounts of our subjectivity in operational closure to our environment. From these deficiencies emerged the fourth cognate model of *enactivism*: an enactive system is a complex *learning system* that is autonomous yet structurally and historically coupled to its environment. Thus, we are neither isolated agents (masculine, *yang*, 阳) nor people of a culture in communion<sup>8</sup> (feminine, *yin*, 阴), but *translative* agents-in-communion. As Davis (1996) noted, rather than learning a static, *preformed* world, learning becomes a dynamically *performed* world (in play). The culmination of these advances indicates that learning becomes an ecological (and *dialogical*) phenomenon bridging subjective experience to the “bodymind” of the learner. So while Descartes’ *cogito* curtailed an appeal to the body for disembodied learning, body-oriented pedagogies have become commonplace in literature as a means to overcome our Cartesian heritage as a *thinking thing* (*res cogitans*). However, while concern for the body in the context of {body, mind} is unproblematic in postmodern educational literature, our sights are set on the upward (*transformative*) movement of self-sense development in consciousness as it relates to the familiar Platonic-Plotinus {matter, body, mind, soul, spirit} and the equivalent Eastern systems (albeit sliced differently).

It is prudent to acknowledge that the enactivist theory of Varela et al. (1993) aimed to address our worldly malaise with uncertainty—a Cartesian anxiety oscillating between objective and subjective poles of our existence)—anarchy,<sup>9</sup> and nihilism<sup>10</sup> by speaking influentially on the Middle Way of Buddhism; in particular, relating their enactive paradigm of cognition to the Abhidharma doctrine of *Hinayāna* mindfulness and Eastern concept of *pratītyasamutpāda* (“dependent origination,” “dependent arising,” or “interdependent co-arising”). While enactivism is the first (legitimate) Kuhnian paradigm to utilise meditative/mindfulness states to bridge interior states of lived experience with exterior cognitive science, it did so monologically (Wilber, 2000). According to Wilber’s holonic (hierarchical) integral theory, they focus on a reductive and partial—if not downright inaccurate—Eastern Buddhist doctrine of *no-self*<sup>11</sup> and *selfless minds* and connect it with a hyper-reductive Western cognitive framework of *mindless minds* (confused for selfless minds<sup>12</sup>)! Therefore, “it builds bridges precisely to the aspects of various theories [*Hinayāna* psychology and cognitive science] that ought to be rejected, not integrated” (p. 737). Nevertheless, connecting mindfulness and awareness training in enacted—as opposed to computational (Jackenoff) or numerical—lived experience is a paradigmatic step in the right direction. We wish to make clear that the aforementioned cognitive models could not include a true bridge to mindfulness as practiced in the context of the *dharma*. To address the insufficiency, we now explore well-being by comparing ecological and metaphysical contexts as articulated by Western scholar and Buddhist practitioner, interpreter, and translator, Alan Wallace.

### Contextualising Mindfulness and the Dharma in Terms of the Eastern Concept of Well-Being

In secular and *vipassana* settings, mindfulness as “meta-awareness” (Thompson, 2007) is coupled with a concern of the present moment, a suspension of judgment, and a focus on relaxation (Nelson, 2012). It is part of a growing

<sup>8</sup> *Agency* is generally the domain of critical pedagogy theorists while *communion* of ecological pedagogy theorists.

<sup>9</sup> We understand *anarchy* not in a socio-political context but etymologically: negation (*an*) of (angelic) hierarchy (*archy*) or supra-rationalities (cognitive growth through contemplative endeavour).

<sup>10</sup> Pierre Grimes, a Platonic scholar, writes that “a wisdom that apprehends beyond the categories by the exercise of intellectual intuition is impossible for Kant since it forms no part whatsoever of our faculty of knowledge” (Grimes & Uliana, 1998, p. 157). Kant defined intuition “as operative only in the empirical phenomenal realm, for ‘without sensibility we cannot have any intuition.’ Thus there is no way in which there can be any participation in the One, or the divine, because such a notion cannot even be expressed in Kantian language” (p. 157). The Greek Parmenides, whom Plato revered, would consider Kant as ordained toward nothingness and nihilism.

<sup>11</sup> *Anattā* or *anātman* as opposed to theories of Self or *Ātman* in *Mahayana* (“greater vehicle”) and *Vajrayāna* (“diamond way”) Buddhism (Wilber, 2000).

<sup>12</sup> Cognitive scientists did not “discover” selfless minds, but *mindless minds*. Worse, as Wilber (2000) stated, “far from being a major discovery, the ‘mindless minds’ notion is a *fait accompli* of the objectivistic, representational paradigm that guides the theoretical, objectivist notion in the first place. Varela et al. are building a bridge between an inadequate (if not downright wrong) *skandhas* theory and the reductionistic portion of cognitive science” (p. 736).

segment of positive psychology<sup>13</sup> which formulates *authentic happiness*, bringing together (1) the pleasant life of simple enjoyment, (2) the good life of optimal absorption and engagement (*flow*)—a popular educational praxis developed by Mihaly Csikszentmihalyi—and (3) the meaningful life which places one's situation toward a greater communal whole. However, to Wallace, the concept of Eastern suffering is mistaken for Western authentic happiness while genuine (Eastern) happiness (*bliss*) is mistaken as suffering! Wallace (2011) stated outright that “we instinctively grasp on to the impermanent as permanent, durable, and unchanging. We grasp on to that which is not by nature a true source of happiness, thinking of it as a true source of happiness” (p. 68). From a Buddhist analysis, authentic happiness is not genuine happiness since “every time you return to that source [of happiness], it should deliver satisfaction. If it is an actual source of happiness, it should invariably deliver happiness—fifteen times a day or twenty hours nonstop” (p. 67). Therefore, teasing apart hedonic happiness from genuine happiness, the Buddhist teachings of Kamalāsīla (740–795) ascribe three sources to the latter: ethical blamelessness, mental balance (*samādhi*), and contemplative insight (*vipaśyana*) into the nature of reality toward the joy of (single-instantaneous) awakening.

According to Wallace (2011), without ethics—a common base of all spiritual tradition—positive psychologists suffer from a *fact-value dichotomy*<sup>14</sup> as “the acquisition of scientific knowledge [metaphysical realism] is not designed to bring about genuine happiness from within or to purify the mind” (p. 72); moreover, “the consensus among Tibetan Buddhist scholars [*Madhyamaka* view] is that metaphysical realism collapses like a house of cards” (p. 53). On Csikszentmihalyi's concept of flow or “being in the zone,” Wallace concluded that it does not even reach the first (of four) stage(s) of *dhyāna* (*contemplation*)—but only mimics the coarse level alone! From authoritative<sup>15</sup> text, the first *dhyāna* sustains *samādhi* for twenty-four hours with “little notice of the passage of time, full use of conceptual ability, and a largely nonconceptual repose—[a truly] extraordinary state” (p. 106). Describing the fourth *dhyāna*, at the limit of the formal realm, “it is said that advanced practitioners can remain in *samādhi* for days without even breathing” (p. 198). Thus, contemporary mindfulness, without the support of ethics, *samādhi*, and the Kosmic view of *Buddhadharma*, becomes a “radically simplified, decontextualized mindfulness practice ... only one small aspect of the vast framework of the Dharma” (p. 94). So long as identification of sense reality remains, the spiritual practice of *vipassana* remains limited to the psychological domain alone and, as such, mindfulness becomes a tool for stress reduction and living in the present moment. While stress reduction is certainly a secondary benefit for practitioners of ancient Eastern mindfulness, it is certainly not the primary goal, nor does it necessarily concern itself with the present moment for reasons we touch upon shortly.

Originally, the authentic practice of ancient Eastern mindfulness (*sati*, *smṛiti*, *recollection*), as stated in the *Milindapaṇḍita*, did not refrain from labeling experiences in nonjudgmental and preconceptual ways (such as *vipassana*), but aimed “to distinguish between wholesome and unwholesome, beneficial and unbeneficial tendencies. The contrast between the ancient and modern accounts is striking” (Wallace, 2006, p. 61). Toward the goal of genuine happiness and well-being, both *sati* and introspection (*samprajāṇa*) are to be cultivated in meditative quiescence (*śamatha*)<sup>16</sup>—which requires a balance of relaxation, stability, and vividness of attention—and applied in contemplative insight. Alongside *śamatha* and *vipaśyana* is the cultivation of the four immeasurables: loving-kindness (*mettā*), compassion (*karuṇā*), empathetic joy (*mudita*), and equanimity (*upekṣā*)—also known as the four sublime abodes (*brahmavihāras*). The fourth category of the Dharma is *prajñā* (“cultivated wisdom, intellectual discernment”) whose perfection (*pāramitā*) “culminates in the abolishment of delusion by direct realization of the nature of reality” (p. 6). These support a fifth category pertaining to practices of Dzogchen Buddhism (Tibetan: *rdzogs chen*) which is our Buddha-nature (enlightenment), primordial wisdom (*jñāna*), or pristine awareness (*rig pa*). And if it is true that every sentient being seeks happiness and freedom from suffering, we simply ask: Is genuine happiness capable of integration under mechanical formulations of schooling? Moreover, have attempts at authentic well-being inevitably weakened the (middle) path toward genuine happiness?

<sup>13</sup> Not to be confused with Comte's positive philosophy or positivism. Positive psychology differs from psychology which has historically investigated the negative aspects of the human condition.

<sup>14</sup> A result of monological analysis, as anyone doing anything can be in “flow.”

<sup>15</sup> Buddhaghosa, *Visuddhimagga* (The Path of Purification).

<sup>16</sup> As an aside, Wallace noted *śamatha* may be integral to healing or preventing attention-deficit-disorders.

### Mindfulness and Well-Being: A Drying Wellspring of Spiritual Potentiality

It might seem strange to describe well-being as regards mindfulness as a “drying wellspring” but those familiar with Japanese *koans* may appreciate its contradictory nature. Since *bliss* and wisdom are beyond the temporal order, thereby not constrained by its limitations, they are indeed within the grasp of all that dedicate themselves to such purpose. However, how can one upwardly raise oneself toward such lofty Ideas (*archetypes*) within an era of materialism whose downward identification cannot but act in accordance with the very mechanical activity that constitutes our time? Certainly not by an education, built *a priori*, on nothing profound or transcendent! Since levels of well-being are themselves hierarchical (Wilber, 2000), and bliss concerns the unchanging and timeless—what lies beyond space and time—metaphysics (*metaphysis*), as the science beyond (Greek: μετά, *meta*) manifestation, becoming, or nature (Greek: φύσις, *physis*), is an appropriate framework. While we lack the space to explain metaphysics, its errors, and its historical context, it would be fortuitous to introduce the topic in order to clarify our position and the context surrounding *sati* as it relates to play. We also note *spirit* is that which transcends our bodymind individuality (*supra*-individuality<sup>17</sup>), and thus, human reason.

### Spirituality as Intelligence

According to Plato, there were two “tools” for the philosopher: one upward tendency (*noesis*) toward spiritual principles or archetypal-Ideas, often administered by means of the dialectic (Greek: διαλεκτική, *dialektikē*), and one downward toward human comprehension, *dianoia* (Greek: διάνοια, “understanding”), achieved “through *Nous*.” In the Plato-Plotinus tradition, *Nous* (Greek: νοῦς) is characterised as a *hypostasis* of Spirit in the Great Chain of Being. According to Wilber (2000), the *Nous*, or Intuitive Mind, lies beyond the logical faculty (mind, formal operation), creative faculty (higher mind), and even psychic faculty (soul). As explained by Steel (2012), “*dianoia* extends these *archai* [principles<sup>18</sup>] downward into the realm of human activity; *noesis*, by contrast, “takes up” (*anairesis*) all such *archai* towards their true beginning or ground (*Arche*)” (p. 47). In contrast to Steel, however, we understand “reason” for the ancient Greeks as wholly different than that which comes down to us as rationality today, which is nothing but the upward and forward tendencies respectively.<sup>19</sup> After all, logic (Greek: λογικός, *logikós*) derives from *Logos* (Greek: λόγος) and symbolically represents the mental reflection<sup>20</sup> of our ontology (Schuon, 1970/2009). Similarly, philosophy, according to its etymology, was not wisdom, but only the “love (*philia*) of wisdom (*sophia*);” for the Pythagorean *philosophos* (lover of wisdom) to become a *sophos* (sage), they had to traverse philosophy, making wisdom essentially *non*-human (*supra*-individual) in origin (Guenon, 1927/2004b) and destination.

Unfortunately, the immediate and non-discursive *intellectus* (Sanskrit: *buddhi*; Latin: *contemplatio*) has become so dissociated from mediate and discursive *thinking* (Sanskrit: *manas*; Latin: *ratio*) that the latter is divorced from its higher principle, and *reason*—now spiritually impoverished—is all that remains evident in our rational (cultural) world-view. A rational culture, embedded in its social milieu, tends to deny anything beyond our *sensorium* such that discursive reason has become a cultural magnetic centre where anything sub-rational (*mythical*) is pulled up and everything *supra*-rational (*mystical*) is either denied or confused for the mythic<sup>21</sup> and pulled down (Wilber, 2000).

To the metaphysician, true intellectuality and pure spirituality are synonymous (Guenon, 1962/1995) and the intellect—*increated et increabile*—as principal (metaphysical) knowledge can stem neither from experience nor empiricism (Schuon, 1991). Rationalism, therefore, “taken in its broadest sense, is the very negation of Platonic *anamnesis* (Greek: ἀνάμνησις); it consists in seeking the elements of certitude in the phenomena rather than in our very

<sup>17</sup> Therefore, it can never be “our” spirit, but the *supra*-human (*angelic*) in contradistinction to the *infra*-human (*machine*).

<sup>18</sup> Better understood as the *Principalities* from Scholasticism: one level above *archangels* and third (fourth counting humans) of nine (ten) angelic stages.

<sup>19</sup> As Coomaraswamy (1987) noted, “when Plato says ‘guided by Reason’ he means ‘doing the will of God’ and not merely common *sense* or pragmatic ‘behaviour’; *we* mean by ‘reason’ what *he* calls opinion” (p. 149)!

<sup>20</sup> See Figure 1.

<sup>21</sup> A common expression is “throwing the baby out with the bathwater.”



being” (p. vii). Thus, what Plato extolled in his doctrine of *anamnesis* or *reminiscence* was an *awakening* toward subtler stages of Being. Any outward activity, whether play or study, should remind us of what we carry within. As regards education,

that which is simply “learned” from the outside is quite valueless in the former case [of transformation], however great may be the quantity of the notions accumulated (for here too profane “learning” shows clearly the mark of quantity); what counts is, on the contrary, an “awakening” of the latent possibilities that the being carries in itself (which is, in the final analysis, the real significance of the Platonic “reminiscence”) (Geunon, 1945/2004c, p. 59).

According to Guénon (1952/2004a), for one who has apprehended and assimilated *Nous*—which implies an inner transformation (Latin: *cum vertere*)—is said to have undergone an “intellectual metamorphosis, [...] a certain ‘return’ by which the being passes from ‘human thought’ to ‘divine comprehension’” (p. 61). The being undergoes a vertical<sup>22</sup> *conversion* (Greek: μετανοία, *metanoia*), which “properly expresses a change of *nous*, [and] is therefore the conscious passage of the ordinary and individual mind, normally turned toward sensible things, to its superior transposition, where it is identified with the *hégemon* [inner ruler, leader] of Plato” (p. 61). In other words, our emphasis in life shifts from *pleasure* to *significance*, or mindless sensibility to Mind itself. We note that cultural hegemony in educational literature regarding an outward, oppressive leadership is dissimilar to (or a degeneration of) the original intent of an inward leadership of spirit over form.

Colloquially, being “sensible” and “rational” are synonymous such that the sensible order is taken for “reality” insofar as it refers to what is ‘real’ to a particular mode of consciousness. To this we reply that we would prefer to use our “supra-senses” that are cultivated in Mindfulness: the starting point of all contemplative endeavors. After all, the sensory world is already within our capacity for knowledge in relationship to our waking consciousness, so the original prospect of education was to develop consciousness toward interior depths, as is evident by its root word *educere* (drawing forth what is within you and leading it up). As Coomarswamy (1987) notes, the educational doctrine of “what we call ‘learning’ is really a ‘remembering’ and that our ‘knowledge’ is by participation in the Omniscience of an immanent spiritual principle” (p. 49), the *intellectus vel spiritus* in correlation to timeless omnipresence. It is *in divinis* that *identification*—or metaphysical knowledge, the kind Plato extolled as intellectuality—occurs, and this is why spiritual traditions were radically non-instrumental in their approach to education or truth(fulness) (Wilber, 2000). Coincidentally, these transcendent, supra-rational states being denied just happen to be in the direction of the source of our genuine happiness (Greek: εὐδαιμονία, *eudaimonía*; Latin: *beatitudo*)!

Similarly, transformation means “passage beyond form” and is not related to “transformative” educational literature based on agency and communion (alone) as these are horizontal and *translative* aspects of our phenomenal (read *formal*) consciousness. And without the integrative power of higher, *post*-formal fulcrums of self-sense development, we end up with numerous paradoxes<sup>23</sup> in critical literature (Wilber, 2000), where most—if not all—stem from the mind-body problem. Solidification tends toward extreme individualism (*hyperagency*) and subsequent dissolution begets a loss of self and agency (*hypercommunion*). As Wilber concludes, without the hierarchical dimension, these *heterarchical* pathologies serve as attractive solutions to hierarchical pathologies (such as patriarchy, domination, alienation, and so on); similarly, both agency and communion theories confound the role of transformation as they both “go beyond” previous limitations. There are numerous reasons for this so we only rehash a few: (1) the collapse of quality to quantity and the loss of the former;<sup>24</sup> (2) the representational paradigm insofar that reason dismisses hierarchical structures of development—including its own ontogenetic stages (Wilber, 2000)—beyond reason; and (3) a solidification of our Being relating to atomism (Guenon, 1945/2004c).

The traditional consensus, in its allowance for greater stages of well-being to be attained (*harmonia*), favoured a qualitative hierarchy of “attunement;” what began from the psychonoetical (*nous*, spirit) complex externalised down

<sup>22</sup> As opposed to a horizontal ‘conversion:’ a change in individual identification.

<sup>23</sup> For instance, communal (*yin*, body) theories in absence of agency (*yang*, mind) end up as hyperagentic (Wilber, 2000).

<sup>24</sup> Qualitative terms such as transformation, conversion, hegemony, play, hierarchy, and so on, are all lost to their quantitative counterparts.

(or radially) to the psychosomatic (bodymind) complex. Accordingly, Wilber (2000) hierarchically layered happiness (*love*) as *Eros* above (transcendent wisdom) and *Agape* below (Christic compassion); as such, rather than penetrating past the joys and sorrows of our enacted world, translativ theories move perpendicularly and when taken exclusively (flatland ontology), negate the path to bliss entirely. Thus, while contemporary Western mindfulness links together a differentiated (now dissociated) mind and body, ancient Eastern mindfulness offers a path of bodymind integration through the symbolic Lotus (*padma*) or Heart: the seat of the soul (Guenon, 1962/1995).

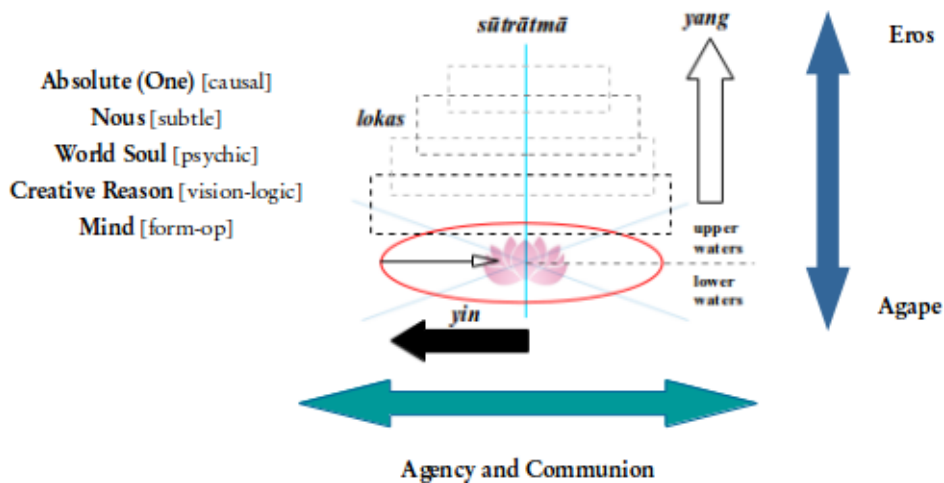


Figure 1. The metaphysical cross symbolising the *sūtrātmā* doctrine and Platonic terminology. Here, the human world (*loka*) is characterised by a Lotus (or Heart) at the centre—understood as our individual Being (*jīvātma*)—with various (angelic) *lokas* above the human domain (within us). Our ratiocination reflects (horizontally) the vertical light of buddhi (*intellectus*) that travels down the golden thread or thread-spirit (*sūtrātmā*) denoted as the Way of Heaven (*Tian Dao*, 天道) in Daoism or the Way of Truth in Scholasticism. The spiritual journey inwardly turns toward the Lotus and up the angelic ladder of remembrance. In a flatland ontology, however, only the xy-plane exists thereby limiting well-being, recess, and mindfulness to their psycho-somatic application in absence of the rich, psychonoetical (spiritual) context which incorporates Mindfulness and its direction: *enlightenment*.

### Metaphysical play

Interestingly, the origin of the word school is from Latin *schola* (Greek: σχολή, *skholē*) meaning *leisure* or *pleasure*; and if play is *subordinate* to—rather than *transcends*—classroom time, then curriculum “sophistication” has collapsed the qualitative, non-instrumental measure of students to their inferior, quantitative order, what metaphysicians call the *infra-human*. To match expectations of standardised<sup>25</sup> curriculum, a wholly *external* activity ensues leaving internal (*contemplative*), embodied, and mindful participation neglected. Mindfulness, which manifests a state of here-and-now oneness through embodied engagement in the present moment (Lu, 2012), is a central practice preceding illumination, yet currently at odds with modern schooling. Spiritually, mindfulness “prepares the soil” for contemplation in order to gain *gnosis* and Know Thyself (Greek: γνῶθι σεαυτόν, *gnōthi seauton*). Far from a mental exercise of self-reflection, *gnōthi seauton* concerned the wisdom transcending individuality. However, in a flatland perspective, either the mind is taken as self-sufficient, leading to the error of representationalism, or the mind is not self-sufficient—simply a product of the social environment—and we are left with theories of ‘no-self.’ Both stem

<sup>25</sup> From an overzealous, quantitative appeal, we have created an average curriculum for an average student that does not even exist!

from the same error of limiting our existence to the corporeal domain alone (flatland ontology), for immutability rests in the *trans*-mental (Spirit). Thus, illumination—a metaphor of light—is really a *rectification*, bringing subjective awareness that we are not a body with a soul and spirit, but a soul (*jīvātma*) with a body within Spirit (*Ātmā*)!

Now, the concept of play may mean (1) a physical activity that caters to enjoyment or (2) a metaphysical concept based on the *sūtrātma* doctrine. The etymology of *recess*, moreover, comes from Latin *recessus* meaning “a going back, retreat,” which derives from *recessum* and *recedere* meaning “hidden or remote part.” Metaphysically, play connects to *līlā* (Skr.), which Coomaraswamy (1987) compares in meaning to *paidia* (Greek: παιδιὰ; “childish play, fun, sport, game”) derived from παίζω (*paizō*, “I play”) and παῖς (*païs*, “child”). Interestingly, or coincidentally, the Greek word for education is *paideia* (Greek: παιδεία)! To Plato, the highest process of nurturing and sense of educating, *paideia*, transformed humans toward wisdom and well-being, or the True, the Good, and the Beautiful. Similarly, the *gnostikos* (Greek: γνωστικός, “learned”), sought Christ within (supra-individual), previously *hidden* (and dormant) in a *remote* depth symbolised by the Heart at the Cartesian origin or (nonspatial) point.<sup>26</sup> Biblically, this stage of consciousness toward transcending individuality recognised “not I, but Christ liveth in me” (Galatians 2:20, KJV). It should be noted that the word contemplation in Greek is *theoría* (θεωρία; Latin: *theoria*) deriving from *theōrós* (θεωρός, “spectator”), literally described as “one looking at a show,” which aligns with metaphysical play we explicate below.

Analytically, mere play is *distinct* from real seriousness since “the worker works for what he [*sic*] needs, the player plays because of what he [*sic*] is” (Coomaraswamy, 1987, p. 150), but on a *higher* level of reference—as opposed to *wider*—there is an *indistinction* between play and work: “the work is laborious, the playing hard; the work exhausting, but the game a recreation. The best and most God-like way of living is to ‘play the game’” (p. 150-151). Once identified with our divine Heart we play, working according to our nature (Platonic Justice); otherwise, to Plato, there is insanity. Thus, “‘human affairs ought not to be taken very seriously’ (μεγάλης μὲν σπουδῆς οὐκ ἄζία), and ... ‘take no thought for the morrow’ (Matt. 6:34)” (Coomaraswamy, 1987). Plato and Matthew allude to the *eternal present* where past and future exist in a single, unchanging moment as in the symbolism of Janus (Guenon, 1962/1995).

Traditionally, a mindfulness based upon metaphysics was not concerned with the “present moment” that separated past from future in the temporal order (*physis*), as the “present moment” is simply successive orderings of time that are indefinitely minute; so fleeting is this perpetual present that one continues to grasp successively at almost no-thing at all! Instead, the process of mindfulness prepares us for a *single-instantaneous awakening* (*eka-kṣaṇa-sambodhi*), for Being to mature and become at peace with itself (*śāntātmā*, “calm-minded, composed”). Interestingly, traditional entertainment never emphasised a physical skill alone, but a proficiency (*kausalām*) and wisdom (*soφία*, “expertise”) to bring order (*ordo*) from chaos (*chao*) (Coomaraswamy, 1987). Traditional doctrines—the Platonic Cave notwithstanding—symbolised chaos as darkness or *undeveloped potentialities* and light as the ordered, manifested cosmos when potentiality actualises. An example in the human order is our capacity (read potentiality) for self-awareness. But practicing *śamatha*, *vipāśyanā*, and *sati* to actualise sustained self-awareness is (pragmatically) irrelevant if we falsely believe to already possess (sustained) self-awareness!

To connect play with Buddhism, “the grace of Buddha’s virtuosity (*kausalām*) is certainly implied, but the direct reference is to his ‘wonderful works’; the Buddha’s *līlā* is, like Brahma’s *līlā*, the manifestation of himself in act” (Coomaraswamy, 1987, p. 152). On the stage, “the puppet is a composite and evanescent product of causal concatenation, not to be regarded as one’s Self” (p. 149) and thus “the divine part of us, our real Self, or ‘Soul of the soul’ is the impassible spectator [*theōrós*] of the fates that are undergone by its psychophysical vehicles, it is clearly not ‘interested’ or involved in these fates” (p. 156). To Plato we are puppets moved by the Great Puppeteer and “we ought to dance accordingly, obeying only that one golden cord of the Law by which the puppet is suspended above” (p. 148-149)—imagery indicative of the *thread-spirit* (*sūtrātman*) doctrine on the interplay between change (Sanskrit: *karma*, action) and its unchanging *principle* (*dhyāna*), since *non-action* (Chinese: *wu wei*, 无为) is superior to action. The pragmatic West, however—deifying action over contemplation—corresponds *truth* with *utility*, denigrating the former

<sup>26</sup> The seat of intellectual intuition as opposed to the seat of emotion or sentimentality. Recall that metaphysics deals with matters beyond space so something “greater” in ourselves cannot be drawn in concentric circles outward, but to a point inward.

to the latter; evidence-based educational trends, instrumental and often devoid of consciousness (by definition), follow as corollary.

### Conclusion

In describing the concept of play, our intent was to show the limitations of modern educational frameworks while simultaneously providing a window for greater conceptualisation. Certainly, to modern prejudices, empirical, instrumental, and analytical approaches seem *reasonable*; however, the recursiveness of reason is insufficient to comprehend frameworks beyond reason, leading to a lack of discernment between what is below rationality (sub-rational, *e-motive*) and what transcends rationality. Wisdom and bliss, grasped by intellectual intuition (eye of the heart), is the “contemplative *actus primus* (*theōria*, Skr. *dhī*, *dhyāna*) and operative *actus secundus* (*apergasia*, Skr. *Karma*) of the Scholastic philosophers” (Coomaraswamy, 2007, p. 13). Play implies *order* by the pleasure that perfects the operation through our karmic responsibility. Therefore, our recommendation in enacting play beyond the confines (and counterfeit) of recess is the non-instrumental approach of mindfulness practice.

### References

- Capra, F. (1996). *The web of life: A new scientific understanding of living systems*. New York, NY: Anchor.
- Coomaraswamy, A. K. (1987). *Metaphysics*. Princeton: Princeton University Press.
- Coomaraswamy, A. K. (2007). *Figures of speech or figures of thought? The traditional view of art: Revised edition with previously unpublished author's notes*. Bloomington, IN: World Wisdom. (Original work published 1946).
- Davis, B. (1996). *Teaching mathematics: Toward a sound alternative*. New York, NY: Routledge.
- Davis, B. (2004). *Inventions of teaching: A genealogy*. Mahwah, NJ: Lawrence Erlbaum.
- Grimes, P., & Uliana, R. L. (1998). *Philosophical midwifery: A new paradigm for understanding human problems with its validation*. Costa Mesa, CA: Hyparxis Press.
- Guénon, R. (1995). *Fundamental symbols: The universal language of sacred science* (A. Moore, Trans.). Hillsdale, NY: Sophia Perennis. (Original work published 1962).
- Guénon, R. (2004a). *Initiation and spiritual realization* (H. D. Fohr, Trans.). Hillsdale, NY: Sophia Perennis. (Original work published 1952).
- Guénon, R. (2004b). *The crisis of the modern world* (R. C. Nicholson, A. Osborne, & M. Pallis, Trans.). Hillsdale, NY: Sophia Perennis. (Original work published 1927).
- Guénon, R. (2004c). *The reign of quantity and the signs of the times* (L. Northbourne, Trans.). Hillsdale, NY: Sophia Perennis. (Original work published 1945).
- Lu, C. (2012). Integrating mindfulness into school physical activity programming. *Teaching and Learning*, 7(1), 37-46.
- Nelson, D. L. (2012). Implementing mindfulness: Practice as the home of understanding. *Paideusis*, 20(2), 4-14.
- Pellegrini, A. D. (2008). The recess debate. *American Journal of Play*, 1(2), 181-191.
- Schuon, F. (1991). *Roots of the human condition*. Bloomington, IN: World Wisdom.
- Schuon, F. (2009). *Logic and transcendence: A new translation with selected letters* (M. Perry, J. Lafouge, & J. S. Cutsinger, Trans.). Bloomington, IN: World Wisdom. (Original work published 1970).
- Shiva, V. (1989). *Staying alive: Women, ecology and development*. London, UK: Zed Books.
- Steel, S. (2012). Recovering ancient and medieval contemplative taxonomies as an alternative to Bloom's taxonomy of educational objectives. *Paideusis*, 20(2), 46-56.
- Stone, M., & Barlow, Z. (Eds.). (2005). *Ecological literacy: Education our children for a sustainable world*. San Francisco, CA: Sierra Club Books.
- Thompson, E. (2007). *Mind in life: Biology, phenomenology, and the science of mind*. Cambridge, MA: Harvard University Press.
- Toulmin, S. (1990). *Cosmopolis: The hidden agenda of modernity*. Chicago, IL: The University of Chicago Press.
- Varela, F. J., Thompson, E., & Rosch, E. (1993). *The embodied mind: Cognitive science and human experience*. Cambridge, MA: MIT Press.
- Wallace, B. A. (2006). *The attention revolution: Unlocking the power of the focused mind*. Somerville, MA: Wisdom.
- Wallace, B. A. (2011). *Minding closely: The four applications of mindfulness*. Ithaca, NY: Snow Lion.

Wilber, K. (2000). *Sex, ecology, spirituality: The spirit of evolution*. Boston, MA: Shambhala.

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