Saving the Data:

The Alayavijñāna of Yogācāra Buddhism and Whitehead's Philosophy of Organism

Melanie Johnson-Moxley

Columbia College and the University of Missouri

"Buddhism is the most colossal example in history of applied metaphysics." 1

There are marked parallels between the metaphysics of Alfred North Whitehead's philosophy of organism and numerous iterations of Buddhist metaphysics; this fact has certainly been noted before. In both cases, for instance, there is an expressed intention to avoid what they deem to be extreme ontologies, conjoined with the assertion that reality should be understood as dynamic, subjective and the product of interdependent creative activity. What has not been much discussed is how well the theory of evolving consciousness developed in the early Indian school of Yogācāra Buddhism correlates with Whitehead's experiential ontology.

The Yogācāra school is one of two primary branches of early Indian Mahāyāna Buddhism, with the Mādhyamika school, founded by Nāgārjuna and his commentators, serving as its figurative sibling. Both schools were adopted and further developed by Chinese and other non-Indian thinkers over succeeding centuries. During its formative years, Yogācāra's key figures were Maitreya (third century CE), Asaṇga and Vasubandhu (both fourth century CE). The distinguishing feature of Yogācāra Buddhism, and a pivotal component of expounder Vasubandhu's metaphysical account of consciousness, is the *ālayavijñāna*, or "storehouse-consciousness." A trilogy of Vasubandhu's works—the *Trisvabhāva-Nirdeśa* (*The Three-fold Self-Nature*), *Triṃśikā* (*Thirty Verses*), and the *Viṃśikā* (*Twenty Verses*)— establish much of his theory of consciousness and the role that the *ālayavijñāna* serves within it.²

The *ālayavijñāna* performs the critical explanatory function of providing the mode by which the data of transitory experience are preserved and transmitted from one moment to the next in a particular causal stream, without recourse to a notion of static, enduring substance. What this provides for Buddhism is a way of accounting for casual efficacy, form, coherence, and relatedness among moments of experience—particularly and decidedly with respect to human beings— without compromising core axioms concerning impermanence and the unreality of any enduring "self." If Vasubandhu's conception of consciousness is taken in its broadest sense as relevantly similar to Whitehead's conception of experience in its broadest sense, then their systematic similarities support, at minimum, the compatibility of the *ālayavijñāna* concept with the philosophy of organism.

Functionally Parallel Ontologies

Whitehead sets the philosophy of organism apart from other metaphysical views in the following ways. Its process ontology is distinct from dualism, which fails to acknowledge the interdependency of the subjective and objective aspects of being. It is distinct from materialism, which fails to take into account the momentariness of being, and from scientific realism, which fails to take into account the subjectivity of being.³ It is also distinct from absolute idealism, which fails to acknowledge the

reality of phenomenal experience, and from Kantian idealism, which inverts the subject-world relationship.⁴ It is, finally, distinct from nihilism, which quite simply fails to take into account the being of being.⁵

Yogācāra ontology is similarly distinguished from materialism and atomic realism, from dualism and from nihilism in the rejection of all forms of the *over-affirmation* and *under-affirmation* of being (*tathatā*) and non-being (*śūnyatā*). The most difficult component in establishing a claim that Whitehead and Vasubandhu have parallel ontologies concerns the question of idealism. There is tremendous disagreement as to whether the Yogācāra philosophy is properly understood as a form of idealism at all, and if so, of what particular variety. Tola and Dragonetti argue that Yogācāra is, at least, some kind of idealist rebellion against Theravāda realism. Chatterjee claims that it is an absolute idealism, Sarachandra declares it to be a subjective idealism, and Wood deems it a "doctrine of collective hallucination." In contrast, Kochumuttom argues for the outlying position that Yogācāra is a realistic pluralism. Conze and Kalupahana object that it is not a metaphysical idealism at all, that it is neither an absolute nor a subjectivist nor a transcendental idealism, but that it is altogether non-ontological, being either soteriological or psychological in intention. Wayman and King insist that this question does not actually matter at all.

The relatively recent non-idealist interpretations of Yogācāratend to be based upon a solely epistemological or psychological reading of the texts. While this sort of approach is tempting as a means of reconciling or avoiding certain problems, I am not convinced that, if employed exclusively, it is ultimately the right approach. Vasubandhu does not seem reticent about tackling metaphysical issues in addition to the epistemological and psychological; I contend that it is essential to understanding his system that these three kinds of questions are not treated as mutually irrelevant or unconnected. An integrated approach provides a more satisfying explanation for the apparent ambiguity of these categories in Vasubandhu's work than supposing his failure to grasp any difference between metaphysical, epistemological and psychological-soteriological issues (as, in part, Sarachchandra has complained.)¹⁰ There is no compelling evidence that we must preclude metaphysics any more than we ought to preclude epistemology or psychology from Vasubandhu's account of consciousness.

For the time being, I wish to suspend a sustained consideration of the question as to whether the Yogācāra ontology is an idealism, particularly of that breed which Whitehead rejects as failing to account for the "stubborn facts of existence." What I would like to emphasize as a promising point of departure, however, is the following:

In the "The Concept of Nature," Whitehead conjectures that there is a long tradition of dividing reality into that which is apprehended and that which causes the apprehension. This bifurcation is an attempt to demonstrate that phenomena flows from the mind as the result of something quite distinct from it impressing itself on the mind. This traditional model does not suppose one part of nature to act upon another part of nature, in the way that heat acts upon a body (molecule to molecule, as it were)— that would effectively be, Whitehead says, an interaction within nature. The attempt in question is rather one that "puts molecules on one side" and perceived qualities on the other, so that it describes an action by nature on a spectating mind that is somehow apart from it. This is a "metaphysical chimera." When we think of knowledge, we should eliminate the misleading spatial metaphors of "within the mind" and "without the mind" altogether. 11

In *The Three-fold Self-Nature (Trisvabhāva-Nirdeśa)*, Vasubandhu establishes that there are three *svabhāva*, or inherent states of being, which all phenomena (*dharmas*) have: what appears (*paratantra*), how it appears (*kalpa*), and the reality behind the appearance (*paranispanna*). That which appears is transitory and contingent; how it appears includes its subjective interpretation as a substantial object, opposed to the perceiving self; what actually lies behind the appearance is a complex set of relationships that are neither enduring substances nor entirely independent of the interpreting subject. As reiterated in his commentary on the *Twenty Verses*, Vasubandu is not claiming that phenomena are wholly insubstantial, but that *as they appear is not substantially what they are*. Vasubandhu argues explicitly against atomic realism, which proposes the existence of many enduring, objective "reals" that exist independently of consciousness. However, this does not preclude the possibility of realism in any form—in fact, if the *dharmas* are understood not as atomic substances but as related moments, then the ground is prepared for such a realist framework without compromising the Buddhist doctrine of non-substantiality (*anicca*, "no things").

Let us suppose a monistic ontology to be antithetical to dualism, but not necessarily to a functional pluralism. That is, monism can assume reality to be one kind of "stuff" without also assuming that it is not discriminated into different functions, spatio-temporal locations, or relationships. Let us suppose further a realist ontology to be antithetical to nihilism, but not necessarily to non-materialism. That is, realism can assume the ontological primacy of "something" rather than "nothing," without also assuming that this "something" is a material substance. These assumptions would open a space for talking about a variety of non-materialist monistic functional realism that neither denies the reality of phenomena nor asserts that phenomena is nothing more than appearance.

Both Whitehead and Vasubandhu's ontologies can inhabit such a space by virtue of explaining reality as dynamic—not in the sense of a collection of dynamic substances— but of a "stuff" that is in its very essence an endless network of related events. For Whitehead, this real stuff is experience. It is my contention that taken in its most general sense, Vasubandhu's "consciousness" serves very much the same role as Whitehead's "experience." If we were to allow Whitehead's "experience" and the general sense of Vasubandhu's "consciousness" to serve as convertible terms, and even if we suppose Vasubandhu's Yogācāra to be an idealism, then insofar as Yogācāra affirms the "suchness" of phenomena *qua* actual relationships among experiential centers, it does not preclude Whitehead's kind of realism.

The Ground of Consciousness

Whitehead

Experience is ontologically basic in Whitehead's metaphysics: all being is a locus of experience and in a fundamental sense, is experience. Being is also momentary and dynamic; occasions of experience are completed and perish as soon as they have fully arisen. This process of becoming and perishing is neither random nor isolated. Every occasion of experience arises from a causal nexus of relationships, influenced by actual occasions that have preceded it and in its turn, influencing occasions that will follow it. Creativity is also ontologically basic in Whitehead's metaphysics: the creative act of coming-into-being is

subjectively experiential (the experience of an arising *subject*); the fully created being is experienced objectively by a subject as *superject*. A moment of creative experience does not endure over time, precisely as it is an occasion and not a concrete thing, but it does persist to a greater or lesser degree as a causal influence upon future occasions of experience. In this way, sheer unfettered possibility is narrowed to a field of real choices. As choice are made—so that some possibilities are realized and others closed off—actuality emerges.

This is what Whitehead terms experience in the mode of *causal efficacy*, and every thing that exists—electron, writing desk, dandelion or human being— does so in this mode. The bonds of causal efficacy arise from without, disclosing the character of the world from which we issue, the "inescapable condition round which we shape ourselves." The bonds of *presentational immediacy* arise from within us, and are 'intensified, inhibited or diversified" as we accept or reject their challenge. The bonds of causal efficacy from the past are at least one factor in producing presentational immediacy—"The how of our present experience must conform to the past in us." ¹²

Data appropriation (*feeling*) is described as a multi-phasic process, which begins with an arising occasion grasping an objective datum from a past occasion "so to make it its own." This is the phase of objective *conformal physical feeling*, which is required for the transition through which the past is synthesized with the arising present. ¹³ The selection from among real possibilities is integrated into this process. ¹⁴ The entire process "exhibits an inevitable continuity of functioning. Each stage carries in itself the promise of its successor, and each succeeding stage carries in itself the antecedent out of which it arose." ¹⁵

Experience takes variable forms in different organisms, relative to their internal complexity and their environment. Relational aggregates (nexūs) of actualities develop a more highly centralized and purposeful core as they range upward from low-level, nonliving structures to human organisms. ¹⁶ Experience occurs across the spectrum of these aggregates, and not all of it involves direct or conscious awareness even in those beings uniquely characterized by their capacity for conscious engagement with their environment. It is only in the advanced modes of experience that consciousness and abstraction, in Whitehead's terms, "intervene" upon experience. Until that point, our experience occurs on levels ontologically and epistemically prior to conceptualization, if not prior to conscious awareness itself.¹⁷

Abstraction of the first order is involved in the creation of any entity, insofar as it involves emphasis of some characteristic rather than others. With the advent of consciousness, a second-order level of abstraction occurs in which the finite components of things are conceptually isolated from the whole, so that we consider, for example, the greenness of a blade of grass as a separable conceptual component in our experience of grass. Mental activity is one of the modes of feeling belonging to all actualities in some degree but only amounting to conscious intellectuality in some actual entities. Consciousness is specialization, an abstraction from the vague mass with concentration on a few qualitative details. Sensations are involved in the intricate flux of reactions within and without the animal body, all hidden below consciousness in a vague sense of personal experience of an external world. It see a blue stain out there implies the privacy of the ego and

the externality of 'out there'— "there is the presupposition of 'me' and the world beyond." But consciousness is concentrated on the quality blue in that position.²¹

An individual person is a momentary, experiential being just as surely as an electron, writing desk or dandelion. "The man-at-one-moment concentrates in himself the colour of this own past, and he is the issue of it."²² Personality is itself an extreme case of a sustained realization of a type of value.²³ Whitehead describes a personal experience as having a spatio-temporal continuity, such that the process of one's life in the morning *is experienced as* extending into the afternoon.²⁴

Human experience seems then to uniquely involve a kind of *self-consciousness*, an awareness of continuity, a forcefully felt but dimly comprehended awareness of being projected "forward," of the endless process of subject emerging as superject—and thus as the kind of ambiguous existence of which Beauvoir and others speak.²⁵ This ambiguity may well be misinterpreted as mere duality, and one side or the other of that supposed bifurcation emphasized to the point of complete distortion. The truth is that subjectivity and objectivity are perspectives on the very same reality. Vasubandhu's Yogācāra agrees with this conclusion.

Vasubandhu

It is said in Yogācāra theory that certain circumstances foster the infusion of the causal efficacies of past moments of consciousness (experience) into the ground of the arising of any current experiential moment, and that these moments in their turn will be efficacious upon any future experiential moments. Consciousness (experiential being) is *led into* these circumstances. Vasubandhu believed that the element upon which any account of dependent co-origination must focus is this: how exactly does this work, given the momentary nature of all experience? How can that which no longer exists have any influence on existence? How can this be explained without ontological inaccuracy? It is this question that the Yogācārin theory of the evolving or transforming consciousness (*vijñāna-pāramitā* or *pariṇāma-vijñāna*) or "cause-and-effect consciousness" (*hetu-phala-bhāvena-citta*) must address.

The modes of the evolution of consciousness are the *vipāka*, which is the coming-into-efficacy of the thoughts, experiences and impressions of the past; the *manana*, which is consciousness at its most basic level, as bare reflection or thinking; and the *vijñapti*, which is consciousness at comparatively more complex levels, in which raw sensory data is conceptualized as subject and object, self and things, and a vast array of qualitative attributions, as influenced by the *vipāka*. The essential element needed to complete a coherent account of causality in this context is the *ālayavijñāna*.

"[The ālayavijñāna] joins an assemblage pertaining to an organism into a felt relationship, and continues as a series of moment-events. Thus... it arises as the consciousness of the attainments themselves; it is the state of evolvement." ²⁶

The $vip\bar{a}ka$ (mode of coming-into-efficacy) operates by means of the $\bar{a}layavij\tilde{n}\bar{a}na$, through flow the seeds $(b\bar{i}ja)$ of past experiences, the potentiality-bearing impressions of completed fact. The $\bar{a}laya$ is not self-aware, nor does it has any positive

or negative feelings with respect to the data it carries. Nevertheless, the $\bar{a}laya$ is always associated with the activities of sensation, attention, conceptualization, cognition and volition as their ground (root, $m\bar{u}la$).²⁷

The *manana* is thinking as bare reflection. It arises by taking the *ālaya* itself as a subject, as the locus of experiences, as an "I"), creating the first and most primary of all binary pairs (*I and* ~*I*, subject and object). *Vijñapti* (complex modes of consciousness) arise upon the stream of the *ālaya*, provided that the conditions for active consciousness exist. The residual karmic impressions of past actions in combination with the reflexive thought of the *manana* stimulate subsequent changes in consciousness— new ripples on the impression-stream. So long as the necessary conditions exist, as soon as one moment of consciousness passes, another arises.²⁸

The *ālayavijñāna* develops in various ways, contingent upon the mutual influences of past impressions ($v\bar{a}san\bar{a}s$) Chatterjee describes $v\bar{a}san\bar{a}$ as the "dynamism inherent in" the *ālayavijñāna*, the presence of which within consciousness cannot be known by consciousness. "It is the tendency, on the part of consciousness, to create the phantom of another and project it as distinct from itself."²⁹ Bina Gupta presents a compelling case for the thesis that the Yogācāra concept of consciousness is a subjective-objectivist theory. Among her conclusions is that it is subjective insofar as consciousness is self-manifesting, and also objective insofar as it is "materially" caused by objective conditions.³⁰ Vasubandhu indeed describes consciousness as "seeding" itself through the function of the *ālayavijñāna*, implying its function as a sort of ontological DNA delivery system.

A Role for the Ālayavijñāna

In both Whitehead and Vasubandhu's ontologies, reality is dynamic, self-creative experience shaped by relevant objective actualities of the past and its own subjective judgments. In Whitehead's metaphysics, arising experience involves abstraction. In Vasubandhu's metaphysics, arising consciousness (the *vipāka*, or coming-into-being) involves abstraction (*manana*, or bare reflection). In Whitehead's metaphysics, consciousness is a specialized abstraction that occurs in sufficiently complex conditions supported by formally stable structures. In Vasubandhu's metaphysics, the most complex form of consciousness (*vijñapti*) arises supported by the *ālayavijñāna*. In both Whitehead and Vasubandhu's metaphysics, personality is kind of persistent formal relatedness accompanied by self-consciousness. The self-conscious personality conceives of itself as a subject independent of an objectively given world. In both cases, the self-conscious personality misinterprets its nature and relationship with reality. This misimpression is repeatedly reinforced by the conditions which foster the arising of complex consciousness.

Vasubandhu's explication of the evolution of consciousness accomplishes at least two things. First, it provides an explanation for the continuing function of consciousness with a kind of karmic memory, that is, a transmission of genetic influence, as it were, from one moment to the next. Second, the idea of cause-and-effect consciousness establishes one of the most basic co-instantiations of opposites in a singular reality by presenting them not as substantially different things, but rather functional differences of the same dynamic reality. Both of these goals coincide with Whitehead's philosophy of organism.

The *ālayavijñāna* functions as a kind of data delivery system, not only storing impressions of completed fact but bearing them from the past into the present, where they are activated by, and reciprocally influence, external *dharmas* (that is, phenomena outside of an individual stream). The momentum of activity carries forward from one occasion to the next, like waves on the ocean perpetually arising and falling away.

Whitehead does not speak explicitly of a dynamic structure or relational medium that is clearly analogous to the $\bar{a}layavij\bar{n}\bar{a}na$. It is not found in the concept of the extensive continuum, as that is the potential for division by actual entities in the widest sense and the $\bar{a}layavij\bar{n}\bar{a}na$ is associated with an individual continuum among many. It is not found in the concept of the nexus, which is closer to Buddhist skandha (bundle) theory. Traditionally conceived, skandha theory does not provide a fully satisfactory account as to how coherence, continuity and causal efficacy are maintained in an episodic ontology. It is to resolve this very issue that Yogācāra developed the $\bar{a}layavij\bar{n}\bar{a}na$ concept. At minimum, this concept is compatible with Whitehead's metaphysics; it may also provide a useful addition to that work. Towards determining the degree to which that last statement may be realized, it is my hope to have started a conversation.

¹ Whitehead, A. N. (1960) *Religion in the Making* (New York: Meridian Books/New American Library), p. 50. Originally published 1926. See Price, Lucien (1954) *Dialogues of Alfred North Whitehead* (Boston: Little, Brown and Company/Atlantic Press), p. 189.

² Principle translations consulted include: Anacker, Stefan. Seven Works of Vasubandhu: The Buddhist Psychological Doctor. Religions of Asia Series No. 8. (Delhi: Motilal Banarsidass, 1984). Cook, Francis Harold. Three Texts on Consciousness Only: Demonstration of Consciousness Only. (Numata Center for Buddhist Translation and Research, 1999.) Kochumuttom, Thomas A. A Buddhist Doctrine of Experience: A New Translation and Interpretation of the Works of Vasubandhu. (New Delhi: Motilal Banarsidass, 1982). Madhyanta-Vibhaga: Discourse on Discrimination between Middle and Extremes Ascribed to Boddhisattve Maitreya and Commented by Vasubandhu and Sthiramati. (Sri Satguru Publications 1992.) Stcherbatsky, Fyodor Ippolitovich. Madhyanta – Vibhanga: Discrimination between the Middle and the Extremes Part I (Sri Satguru Publications, 1992.) Tola, Fernando and Dragonetti, Carmen. Being as Consciousness: Yogācāra Philosophy of Buddhism. (Motilal Banarsidass, 2004.) Wood, Thomas E. Mind Only: A Philosophical and Doctrinal Analysis of the Vijñānavāda. (Honolulu: University of Hawaii Press, 1991).

³ Whitehead, A.N. (1978) *Process and Reality*, corrected ed., D. R. Griffin and D. W. Sherburne, eds. (New York: The Free Press/MacMillan Publishing), pp. 28-9. Original edition published 1929; first appeared 1927-8, Gifford Lectures, University of Edinburgh. ⁴ *Process and Reality*, p. 116. With respect to Kant, Whitehead says that the world does not arise from the subject, but that the subject arises from the world as superject. (See pp. 88, 155-6.)

⁵ Process and Reality, p. 142.

⁶ See Ashok K. Chatterjee, *Readings on Yogācāra Buddhism*. (Center of Advanced Study in Philosophy, Banaras Hindu University, 1971.) See Edirivira R. Sarachchandra, "From Vasubandhu to Śāntarakṣita: A Critical Examination of Some Buddhist Theories of the External World." *Journal of Indian Philosophy* 4 (1976), pp. 69-107. See Thomas Wood, *Mind Only: A Philosophical and Doctrinal Analysis of the Vijñānavāda*. (Honolulu: University of Hawaii Press, 1991). See Fernando Tola and Carmen Dragonetti, *Being as Consciousness: Yogācāra Philosophy of Buddhism*. (Motilal Banarsidass, 2004.)

⁷ See Thomas A. Kochumuttom, *A Buddhist Doctrine of Experience: A New Translation and Interpretation of the Works of Vasubandhu*. (New Delhi: Motilal Banarsidass, 1982).

⁸ See Edward Conze, Buddhist Thought in India: Three Phases of Buddhist Philosophy (London: Allen and Unwin, 1962) Ch. 3, "The Yogācārins." See David J. Kalupahana, The Principle of Buddhist Psychology. (New York: State University of New York Press 1987).
9 See Alex Wayman, "A Defense of Yogācāra Buddhism." Philosophy East and West (Oct. 1996) and Richard King, "Early Yogācāra and Its Relationship with the Mādhyamika School," Philosophy East and West 44, no. 4 (October 1994): 659-83.
10 Sarachchandra, ibid.

¹¹ See Whitehead, A. N. (1961) "The Concept of Nature" in F.S.C. Northrop and M.W. Gross, eds., *Alfred North Whitehead: An Anthology* (New York: The MacMillan Co.), pp. 219-21. Originally appeared 1920, Tarner Lectures, Trinity College (Cambridge). See also "The Principle of Relativity," in this volume, p. 338.

¹² Symbolism, p. 58.

¹³ Process and Reality, p. 164; see also 23.

¹⁴ "A feeling bears on itself the scars of its birth; it recollects as a subjective emotion its struggle for existence; it retains the impress of what it might have been, but is not... The actual cannot be reduced to mere matter of fact in divorce from the potential." *Process and Reality*, pp. 225-7.

¹⁵ Process and Reality, pp. 164-5.

¹⁸ Whitehead, A. N. "Mathematics and the Good." (1948) Science and Philosophy (New York: The Philosophical Library), p. 120.

¹⁹ Whitehead, "Mathematics and the Good," in *Science and Philosophy*, p. 121.

²⁰ Process and Reality, p. 56.

²¹ Whitehead, A. N. (1968) *Modes of Thought* (New York: The Free Press/MacMillan Publishing Co.; original publication 1938), pp. 121-2.

²² Symbolism, p. 27.

²³ "On Immortality" in *Science and Philosophy*, pp. 92-94.

²⁴ Science and Philosophy, pp. 146-7.

²⁵ See, for instance, Simone de Beauvoir, *The Ethics of Ambiguity*.

- ²⁶ Anacker, Stephen. Seven Works of Vasubandhu: The Buddhist Psychological Doctor. Religions of Asian Series No. 8. (Delhi: Motilal Bnarsidass, 1984), pp. 71-2. "The Five Aggregates."
- ²⁷ Sparśa (sensory perception, "touch"), manas-kāra ("mental attention"), sañjñā (conceptualization), cetanā (cognition) and anvita (volition).
- ²⁸ The ālava-viiñāna is called citta because it collects or accumulates (is citavāt, becoming accumulated/filled with) the bijās (seeds/germs/causes) of vāsanās, the present consciousnesses of past perceptions. The prayrtti-vijñāna is called citta because it acts/functions/evolves in/under/as citra (diverse forms/aspects/ways). Collectively, the ālaya-vijñāna and seven-fold prayrtti-vijñāna constitute abhūta-kalpa, the supposition/imagination/creation of forms of subjectivity and objectivity. This function itself is threefold: as vaipākika (maturational), as naimittika (caused), and as prātibhāsika (phenomenal). The ālaya-vijñāna is called mula-(root/foundation/origin/cause) vijñāna because it has the nature of vipāka (maturation), the first of the three modes of abhūta-kalpa (supposition/imagination of subject and object). The naimittika (caused) and prātibhāsika (phenomenal) modes of abhūta-kalpa are constituted by the eightfold pravrtti- (active/functioning/evolving) vijñāna. They evolve or arise as modifications depending upon drśya-(corrupted) drg- (seeing) vitti- (consciousness/acquisition) vrttita ("turning," mode of being or acting). And so in this way, vipāka helps produce vikalpa: that is, maturation of the influence of past experiences is causally related to suppositions about phenomenal appearances.

²⁹ Chatteriee, Readings on Yogācāra Buddhism, p. 20.

³⁰ See Bina Gupta, CIT Consciousness (Oxford University Press Foundations of Indian Philosophy series, 2003) p. 89.

¹⁶ Whitehead, A. N. (1968) *Modes of Thought* (New York: The Free Press/MacMillan Publishing Co.; original publication 1938), pp. 26-8.

¹⁷ In fact, Whitehead asserts, it is in just this way that our aesthetic, moral and religious experiences take shape. "We are continually choosing between the good and the less good, whether [we are] aware of it or not. Even children do so before they can hardly speak (Price, Dialogues, pp. 194-5.) He further attributes capacity for moral and aesthetic experience to some non-human complex organisms, commenting on the love and loyalty of dogs, and the joie de vivre of songbirds. See also Dialogues, pp. 186-7 and 310.