

KARMA, REBIRTH, AND MENTAL CAUSATION

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Attempts to provide a thoroughly naturalized reading of the doctrine of karma have raised important issues regarding its role in the overall economy of the Buddhist soteriological project. This paper identifies two of the most problematic aspects of a naturalized interpretation of karma: (1) the strained relationship between retributive action and personal identity and (2) the debate concerning mental causation in modern reductionist accounts of persons. The paper explores the benefits of a phenomenological approach in which reductionist accounts of karma are replaced with accounts that interpret virtuous and compassionate actions as emergent properties of consciousness that can be further enhanced through socialization.

The notion that actions have retributive consequences across innumerable lifetimes is germane to the Buddhist and Hindu worldviews. For the Buddhists, in particular, it is clearly articulated in the canonical literature, where the Buddha declares that his clairvoyant powers enabled him to see beings being reborn in various stations of existence due to their karma.¹ However, the metaphysical underpinnings of a view of human agency operating on a cosmic scale are not easily reconcilable with modern secular views of humans as socially and biologically conditioned agents. This is in part why reductionist interpretations of the doctrine of karma, which seek to telescope the cosmic dimension to a more manageable this-lifetime-only stream of events, have met with all sorts of methodological and theoretical difficulties.

As Buddhist ideas and practices penetrate deeper into the fabric of Western societies, the question of whether modern secular approaches to karma are suitable or not is no longer a purely historical or exegetical question. It becomes also a sociological and psychological question, as we seek to address both the relevance and the appeal of a system of ethics grounded on the idea that there is a natural connection between actions and their results. It is above all a methodological question, now that the study of Buddhist ideas can be pursued across a variety of disciplines.

One response to the secular approach is to step outside the norms of scientific rationalism and adopt an emic perspective. From the standpoint of the Buddha's

¹ *Majjhima Nikāya* III, 178-9.

psychological and moral teachings, it is not karma that stands in need of explanation but rather our modern secular attitude vis-à-vis a conceptual system that invites radical reassessment of human agency. To be sure, there are several ways to articulate a genuinely Buddhist perspective on karma, not all of which require that we endorse its metaphysical presuppositions. This is precisely where the naturalist paradigm finds its niche, for it seeks to justify the natural connection between human actions and their results, the central tenet of karma, by appealing to modern scientific models of natural and social interaction.

Another example of a methodological difficulty is the historical bias characteristic of any attempt to explain divergences within the Buddhist conceptual schema of karma and rebirth as reflecting “divergent historic traditions” and thus to transform karma into a historically contingent notion. Whether such divergences have a historical basis or not, or even if it makes sense to look for historical causes, is a methodological not an empirical question. As such it calls into question the interpretive strategies of the interpreters themselves rather than the purported divergence of the “historical account.” Illustrating the dilemma modern interpreters face when approaching the conceptual schema of karma and rebirth in the Indian and Buddhist contexts, Gerald Larson notes that it is methodologically unwarranted to seek a ‘historical’ explanation of the doctrine of karma when ‘history,’ as an interpretive notion, “has no demonstrable place within any South Asian “indigenous conceptual system” (at least prior to the middle of the nineteenth century).”²

While I recognize the value of operating within the bounds of the traditional account, here I wish to go one step further and take advantage of the new array of methodological tools at our disposal. Specifically, I explore the potential benefits of a phenomenological account of karma. Acknowledging the demand for phenomenological accounts of human experience and social interaction, such an approach nevertheless recognizes the irreducible nature of conscious experience. A promising response to modern reductive accounts of consciousness and cognition that aims to integrate the third- and first-person perspectives of science and experience is that of neurophenomenology. A neologism introduced by the neurobiologist Francisco Varela, neurophenomenology is used here in the broader sense of its original definition as the attempt “to marry modern cognitive science and a disciplined approach to human experience.”³ In the idiom of the tradition of phenomenological inquiry initiated by Husserl, we need to move beyond third-person objectification and return to “the things themselves,” to a world where experience is not an abstract process to be analyzed in its constitutive elements but a directly felt immediacy. A similar phenomenological attitude is at work, it could be argued, in the Abhidharma analysis of the immediacy and directness of experience. Indeed, this

² Larson (1980: 305).

³ Varela (1996: 330).

phenomenological attitude reveals that what we take to be ‘selves’ and ‘entities’ are disclosed as discrete cognitive episodes and aggregated elements of experience. At the same time, the phenomenological attitude, understood in the Husserlian sense of bracketing the natural attitude, reveals the causal-cognitive links characteristic of the psychophysical phenomena that define human experience. It is these causal-cognitive links that ultimately define karmic causality.

The doctrine of karma, whose centrality to Buddhist psychology is axiomatic, invites a reassessment of our understanding of the psychology of voluntary action and of the nexus of causal and motivational forces that inform and sanction our valuing judgments. This understanding relies on three axiomatic principles. First, when and where deeds are intentionally performed, retributive consequences will inexorably follow. In other words, once performed the chain of causal consequences set in motion by the karmic process is never destroyed.⁴ Second, the underlying dynamics of the karmic process is not transparent, at least not with respect to the specific consequences of one’s actions and, from the viewpoint of the Buddha, not without an insight into the interdependently arising (*pratītya-samutpāda*) nature of all phenomena. Third, in addition to the accumulation of past deeds, present circumstances also impinge on, and constantly reshape, the karmic process. Thus, varying circumstances can alter the results of actions, either by attenuating or precipitating a given outcome. Of these three aspects of karma, the idea that factors constitutive of voluntary action represent the maturation of actions that could be sufficiently remote to be inscrutable, is the hardest to reconcile with a thoroughly modern and secular perspective.

As Buddhist philosophers would argue, our cognitive propensities are beginningless, each thought being merely the continuation of an endless series of previous thoughts, which constantly inform, influence, and direct our cognitive capacities.⁵ These cognitive propensities manifest most vividly as traces of memory and conceptual construction. Buddhist philosophers came to reject memory (*smṛti*) as a reliable source of knowledge and would regard conceptual construction or imagination (*kalpanā*) as a secondary, somewhat imperfect, cognitive modality that serves as a counterfactual example for how perception, the most reliable source of knowledge, is to be defined. Conceptual construction, thus, came to be completely dissociated from direct perception.

⁴ *Sutta Nipāta*, 666.

⁵ See, for example, *Abhidharmakośa-Bhāṣya* 3, 19: *etena prakāreṇa kleśakarmahetukaṃ janma taddhetukāni punaḥ kleśakarmāṇi tebhyaḥ punarjanma ityanādi bhavacakrakam veditavyam*: “Birth on account desires and actions; desires and actions on account of birth; birth on account of desires and actions: the cyclical nature of existence is beginningless.”

What is it that provides coherence to our lives in the absence of an enduring self? For the early Buddhists the rejection of a permanent self as the agent (*kartṛ*) and enjoyer (*bhoktr*) of sensory activity posed a significant challenge, specifically with regard to accounting for the perceived efficacy of the karmic process.⁶ Modern scholars have been no less confounded by discrepancy between early and later Buddhist traditions on the actual intent of Buddha’s teachings about the self. The view of early scholars,⁷ who interpreted certain canonical passages (e.g., *Āṅguttara Nikāya* I, 149–50) as advocating for a notion of the self as an unchanging witness (*sakkhi*) has been the subject of much debate in recent scholarship. For instance, Harvey has argued at length that “the ‘self’ which witnesses...probably refers to deeper aspects of *citta* acting as ‘conscience’.”⁸ Harvey’s suggestion amounts to saying that the Buddha did not reject the notion of a personal, empirical self, but rather that of a metaphysical self. Similarly, Collins delineates several points in support of the notion of no-self as the right view: (1) that self-view is a form of perversion (*attādiṭṭhiparāmāsa*); (2) that the body is falsely taken to be the self (*sakkāyadiṭṭhi*); (3) that consciousness is not the self (*viññāṇaṃ anattā*); (4) that it is not possible to speak of a self apart from experience; and, finally, (5) that the false sense of self comes from using the personal pronouns ‘I’ (*ahaṃkāra*) and ‘mine’ (*mamankāra*).⁹

Whatever the implications of this reductive notion of self, there is no doubt that from an empirical standpoint the dynamics of the five aggregates generate a sufficiently strong sense of personal identity that goes beyond the illocutionary uses of personal and possessive pronouns. If consciousness is inherently intentional, as Abhidharma traditions seem to suggest, then, karmic activity cannot be thought independently of cognitive and volitional process, and their complex feedback mechanism. In other words, action, specifically conscious action is not merely a behavioural function or the outcome of natural involuntary biological and mechanical processes: rather, it is first and foremost a volitional act (or at least driven by such an act).

In his analysis of the Sautrāntika Abhidharma theory concerning rebirth and causation, Vasubandhu defines *karman* as volition (*cetanā*) and its ensuing result.¹⁰ However, *karman* involves two distinct forms of activity: the volition itself and the intentional act (*cetayitvā*). In his commentary, Vasubandhu further explains that action itself, although conceived as a dual gesture of volition and its result, in fact consists of three discrete stages: bodily, verbal, and mental action

⁶ For a detailed treatment of the metaphysical and pragmatic implications of the doctrine of *anatta/anātma*, see Collins (1982) and Harvey (1995).

⁷ Viz., Horner (1971: 34) and Bhattacharya (1973: 62).

⁸ Harvey (1995: 22).

⁹ See Collins (1982: 87–115).

¹⁰ See *Abhidharmakośa-Bhāṣya* IV, 1, 2: *cetanā tatkr̥tam ca tat*.

(*kāyavāñmanaskarmāṇi*). These respectively correspond to the basis (*samutthāna*), the specific nature (*svabhāva*), and the original cause (*samutthana*) of the action. Each of these three actions, although apparently separate, as a matter of fact are the same action viewed from three different angles. From the perspective of its basis, the action is grounded in the body, which serves as its instrumental manifestation. From the perspective of its nature, the nature of action consists in verbal expression. Finally, from the perspective of its originating cause, the action finds its ultimate cause in the realm of the mental.¹¹

According to the account Vasubandhu puts forward in his *Abhidharmakośa*, conception and verbal expression represent forms of activity that manifest an individual's intention to express certain ideas or engage with a certain object of experience. This intentionality springs from continuous residual impressions (*vāsanā*) resulting from the association between things and names in the past. In the *Karmasiddhiprakaraṇa*, Vasubandhu expands on his idea that the impressions of past experience are instrumental in effecting the activity of the karmic continuum that constitutes the individual personality.

In his exposition of the relationship between volition and action, Vasubandhu uses the example of traces of volitional acts to suggest that the intention to engage in a certain action is not entirely determined by the present volition, but also stems from the traces left by past volitional acts. An action—such as, for instance, the intention of breaking a rule (*āsaṃvara*)—is guided by volition and by the traces left by this volitional act.¹² The implication here is that any specific volitional act sets in motion a causal process that can only be countered by another volitional act that is contrary to the first. Because the dynamics of volitional acts is habit forming, countering the effects of ill-intending acts rests with the capacity to will against the natural propensity of the mind to operate on the basis of its conditioning.

Now, it should become apparent at this stage of our analysis that this Abhidharmic causal account of volition and its pragmatic efficacy is at odds with naturalist accounts of human agency (which, essentially, deny free will as broadly construed). The naturalist paradigm in epistemology, at least as framed by its proponents, is primarily concerned with one of the two concepts of mainstream epistemology: that of knowledge (the other being justification). Those pursuing a naturalist agenda operate on the assumption that the sciences of cognition, having turned their focus toward investigating the nature of mind from a third

¹¹ See *Abhidharmakośa-Bhāṣya ad Abhidharmakośa* IV, 1-2.

¹² See, for example, *Abhidharmakośa-Bhāṣya ad Abhidharmakośa* IV, 27d: *avijñaptivādasamvaropī nāsti draṅyata iti sautrāntikāh. / sa eva tu pāpakriyābhisamandhir samvarah / sānubandhe yatahku 'salacitto'pi tadvānucyate.* “According to the Sautrāntikas the rule-breaking does not exist substantially apart from volition. Rule-breaking is the intention of committing evil, i.e., a volition and the traces left by this volition.”

person perspective (the only one that can lay any claim of objectivity), are best suited for answering questions about knowledge and belief formation. The sciences of cognition, however, like other sciences, rely on observation, and observation leads to the old philosophical problem of the difference between “seeing” and “seeing as.”¹³ In the Buddhist philosophical tradition this distinction is instrumental for distinguishing conception-free from conception-laden cognitive states, and has been at the heart of the Buddhist epistemological claim of Dignāga and Dharmakīrti that only the former deserves the proper label of perception.

Although the examples provided in the Buddhist literature to illustrate this distinction are drawn from ordinary experience (for instance, being able to attend to perceptual input while thinking of something else, etc.), the ultimate proof for this decoupling comes from the testimony of yogic perception. It is this decoupling which raises important issues concerning the ultimate support of cognitive activity, and which, in the end, leads to questions about causation, personal identity, and intentionality.

In the Western context, the naturalistic approach to cognition revolves around the problematic nature of embodiment. Contemporary debates on the problem of embodiment revolve around the issue of whether consciousness ought to be regarded as a mere epiphenomenon or as something that has causal powers, with various gradations of these positions in between.¹⁴ It is important to understand that mind as currently understood in the scientific literature is, “an abstraction from, and hence presupposes, our empathic cognition of each other.”¹⁵ Operating with a model of the mind that departs from the standard

¹³ In one of his attempts to work out the implications of this difference for naturalized epistemology, Jerry Fodor notes that, notwithstanding the constraints applied to the meaning of “observe” in experimental science, the “uses of ‘observe’ and its cognates have pretty clearly come unstuck from “seeing as” or, indeed, from anything that’s psychological.” Consequently, the empiricist claim that observation in some way is a type of seeing is unsupported. In Fodor’s own words, “It’s fine to let psychology settle what an observation is. And it’s equally fine to forget about psychology and just let the observations be the data. But it’s sheer Empiricist dogmatism to take it for granted that you can do both at once. In fact, there is no good reason to suppose that the psychological notion of perception—or, indeed, any psychological notion—will reconstruct the epistemological notion of a datum” (Fodor (1991: 208)).

¹⁴ Although not exactly a middle ground position between epiphenomenalism and voluntarism, the notion of supervenience, i.e., that consciousness occurs as something additional to the causal (read *neurobiological*) processes underlying cognition (see e.g., Jaegwon Kim (1993)), provides an interesting parallel to the Buddhist notion of the receptacle consciousness as resulting from the special evolution of its series. See, e.g., *Karmasiddhiprakaraṇa*, II, 6.

¹⁵ Thompson (2001: 2).

cognitivist-computational model, the cognitive scientist Francisco Varela and philosopher Evan Thompson have proposed that we view mental processes as “embodied in the sensorimotor activity of the organism and embedded in the environment.”¹⁶ For Varela and Thompson this embodied and enactive model of the mind relies on the following three principles:

- “Embodiment. The mind is not located in the head, but is embodied in the whole organism embedded in its environment.
- Emergence. Embodied cognition is constituted by emergent and self-organized processes that span and interconnect the brain, the body, and the environment.
- Self–Other Co-Determination. In social creatures, embodied cognition emerges from the dynamic co-determination of self and other.”¹⁷

An embodied and embedded consciousness in which the patterns of co-determination are operative at both ends of the cognitive-causal chain raises the issue of causal powers from another direction: that of conscious will. However, whether consciousness is regarded as having causal powers or not, the most difficult problem remains that of adequately specifying the criteria under which brain states can be interpreted as aspects of cognitive processing. Apart from the difficulties inherent in any attempt to close the explanatory gap, whether from the direction of experience or from that of neuroscience, a naturalized account of consciousness and its pragmatic efficacy is also confronted with what the French philosopher Paul Ricoeur, quite aptly, terms “semantic amalgamation”.¹⁸ Ricoeur is inclined to adopt what he calls a “semantic dualism,” which plays a useful heuristic function. He further observes that “[t]he tendency to slip from a dualism of discourses to a dualism of substances is encouraged by the fact that each field of study tends to define itself in terms of what may be called a final referent.”¹⁹ This referent, which for philosophers is the mind and for neuroscientists is the brain, is also in some way defined as the field itself is defined. Ricoeur warns thus of the risks of collapsing these two referents:

It is therefore necessary to refrain from transforming a dualism of referents into a dualism of substances. Prohibiting this elision of the semantic and the ontological has the consequence that, on the phenomenological plane...the term mental is not equivalent to term immaterial in the sense of something noncorporeal. Quite the opposite. Mental experience implies the corporeal, but in a sense that is irreducible to the objective bodies studied by the natural sciences.²⁰

¹⁶ *Ibid.* p. 3.

¹⁷ *Ibid.* p. 3.

¹⁸ Changeux, J-P. and Ricoeur, P. (1998: 14).

¹⁹ *Ibid.*, p. 14.

²⁰ *Ibid.*, p. 14f.

I draw attention to this “semantic amalgamation” partly as a criticism of the usual “the brain thinks” or the “amygdala feels” modes of discourse currently in use in neuroscientific literature, and partly to emphasize the inherently linguistic nature of knowledge representation in which both phenomenological and neuroscientific accounts of cognition find their expression. This is evident in the fact that the body, as the medium where lived experience takes place, is part of the continuum of life, of what Husserl called the life-world (*Lebenswelt*).

In the Buddhist context, the problem of embodiment finds expression particularly in discussions concerning karma and rebirth. More specifically, for Buddhist philosophers the problem of embodiment is framed by the dispute over the relationship between cognition and the body. Although extensive treatments of this issue are found in the Abhidharma literature, for a clear philosophical articulation of the relation between cognition and the body only comes with the first attempts to explore its significance for a theory of valid cognition. For instance, in his dispute with the Cārvāka philosopher Kambalāśvatara, Dharmakīrti offers a refutation of materialism, while defending a thesis that is somewhat contrary to modern views of biological determinism:

Nor are the senses, or the body together with the senses, the cause of cognition, for even when every single one of the senses is impaired, the mental cognition is not impaired. But when the mental cognition is impaired, their (i.e., the senses’) impairment is observed.²¹

The gist of Dharmakīrti’s argument here is that an impairment caused to any of the senses does not impact on the overall cognitive capacities of an individual but only on his ability to communicate his inner states via that sensory modality. However, the reverse is not true, as any fundamental impairment to one’s mental capacity renders the senses useless. This approximately corresponds to what modern psychology calls agnosia, a state in which one is unable to recognize and interpret objects, people, sounds, and smells, despite the fact that the primary sense organs are intact. Ostensibly, Dharmakīrti’s argument in favor of taking rebirth as axiomatic in the discussion of cognition (expanded at great length by Śāntarakṣita and Kamalāśīla in their own refutation of materialism²²) is simply an extension of his theoretical commitment to the Yogācāra psychology and, indirectly, to the Buddhist principle of momentariness. That this focus on cognition as *lived experience* and on the phenomenology of the present moment finds a distant echo in Husserl’s phenomenology comes as no surprise, given the common premise on which both Yogācāra and Phenomenology operate, namely the primacy of the moment as given in direct experience. This convergence is clearly illustrated by Dan Lusthaus:

²¹ *Pramāṇavārttika*, II, 39: *pratyekamupaghāte’pi nendriyāṇāṃ manomateḥ / upaghāto’si bhāṅge’syāstvasām bhāṅgāś ca dṛśyate.*

²² See *Tattvasaṃgraha* XXII and *Tattvasaṃgrahapañjikā ad cit.*

We note as a point of interest that for both Husserl and Yogācāra the present moment alone was real, and yet the present is never anything other than an embodied history. Phenomenology reached history through the moment by an innovative method of reflection on and description of that moment. Conversely, Yogācāra arose out of a history, namely, Buddhist tradition that carried a karmic theory of historical embodiment. The primacy of the moment was bequeathed to them through that history; and they reinterpreted that history in the light of an epistemology that, like Husserl, scrutinizes the structure of a moment of cognition in order to recover its context and horizons. For both Husserl and Yogācāra understanding involves a leap from the present as mere presence to embodied history, to the uncovering and reworking of habitual sedimentations—and in the case of Yogācāra, the ultimate elimination of habit (*karma*) altogether.²³

Developments in the sciences of cognition in the past few decades have greatly enhanced our understanding of the adaptive nature of human cognitive functions. We now know for instance that the operation of our perceptual systems is functional only within a certain register of experience.²⁴ In addition, we have learned that the richness of our perceived world is the result of top-down interpretive and imagistic processes, responsible for unifying a coherent manner the perceptual input.²⁵ Some of the best evidence in this direction comes from the analysis of perceptual illusions. Illusions are the result of stimuli that operate “at the extremes of what our [perceptual] systems have evolved to handle.”²⁶ This idea that perceptual illusions are indicative of limits within our sensory systems, despite our still incomplete knowledge of their underlying mechanisms, is relatively new. Proposals by Herman and Mach in the nineteenth century that illusions could have a neural basis traceable to lateral interactions between cells in the visual cortex have been confirmed by recent research. It is now commonly understood that beyond the retina, connectivity between neighbouring neural assemblies results in a complex pattern of excitation and inhibition, which results in enhancing contrast between various regions in the visual field. It seems thus that the visual system has evolved to respond to change rather than constancy and while this is a beneficial adaptive function, in some peculiar instances leads to illusory percepts.²⁷

The lesson from research in perceptual illusions, is that perception is not a

²³ Lusthaus (2002: 25).

²⁴ We know, for instance, that although light irradiates the retina in two dimensions, we see the world three-dimensionally. We have also learned that color sensitivity is only available in a small central region of the visual field, and that there is a discrepancy between the seeming richness and presence of the visual world and the rather poor and fragmentary data processed by the visual system. See e.g., O’Regan (1992).

²⁵ See e.g., Pessoa, Thompson, and Noë (2001).

²⁶ Eagleman (2001: 920).

²⁷ Eagleman (2001: 921).

passive relaying of input from the natural environment to the mind/brain but an active process of selection and construction that serves a specific pragmatic function: adaptation and survival in the natural world. Perception is active in the sense that the senses give us an image of the world that is largely the result of adaptive evolutionary changes hardwired in their dynamic structure.²⁸ The world of sensory experience is not the same as that described by physics but only a resultant projection by the mind/brain based on selective processing of sensory input. Thus, the rich texture of our experience reveals not only our creative/synthesizing capacities but also our ability to overwrite or at least withstand conditioning factors in our environment. In addition, psychophysical studies seem to indicate that it is mainly our ordinary perception, which makes the world appear seamless.²⁹ It also shows that perceptual objects as they appear are not entirely independent of the functioning of our sensory systems. Perceptual illusions appear as conflicting interpretations that fail to reconcile our assumptions about the world, as it should normally be, to new psychophysical circumstances.

While the sciences of mind do not speak with one voice when it comes to understanding the causal processes that underpin conscious cognitive states, at least in the case of the embodied cognition paradigm,³⁰ we can assert their (i.e., conscious cognitions') causal efficacy. Indeed, each cognitive event exists as part of a nexus of interdependent cognitions that, in turn, give rise to specific conscious states (e.g., discernment, awareness, attention, intention, etc.). The embodied history of effective intentional states leaves (karmic) traces, which in the language of cognitive science represent a kind of experiential ontogeny and phylogeny,³¹ the closest a modern reductionist account of karma comes to understanding causality intergenerationally.

²⁸ See e.g., Aloimonos (1993). For a detailed discussion of the relation between perception and imagery, which also explores the notion that perception is an active exploration of phenomena as immediately available within the perceptual field, see Thomas (1999).

²⁹ See Blackmore *et al.* (1995).

³⁰ See G. Lakoff, (1987: 284-90). More recently, Lakoff and Johnson (1999: 36, 102) have argued that these basic cognitive images or 'image schemas,' which are reflective of our "phenomenological embodiment," are the means by which we apprehend the world non-conceptually through the body. As the means by which we orient ourselves in the environment and act out our purposeful actions, our apprehension of what is phenomenally given in any situation "depends on our embodied understanding of the situation."

³¹ See Varela *et al.* (1991: 121). As the authors are keen to emphasize "ontogeny is understood not as a series of transitions from one state to another but as a process of becoming that is conditioned by past structures, while maintaining structural integrity from moment to moment."

The co-dependence of various cognitive functions and their action-oriented embeddedness in the natural and social environments reflect a view of human agency that is very much in tune with a naturalized account of the doctrine of karma. Operating on the assumption that human beings are inherently good, the Buddhist tradition is less concerned with how the social and biological forces condition and constrain human behavior and more with how, given this conditioning, it is possible to attain freedom. From the perspective of the Buddhist understanding of the karmic process, it is precisely the pattern of co-dependent arising of phenomena, including subjective states of consciousness, that holds the promise for release. Knowledge of the pattern of causation at work in the phenomenal world is of course not sufficient for an individual to follow a course of action that will be morally beneficial. Disciplined practice is necessary to reverse human habituation, where such habituation is not conducive to beneficial outcomes. But this reversal of human habituation is neither miraculous nor entirely conditioned by social and biological factors. Rather it is reflective, on the one hand, of the peculiarities of one's own embodied condition and, on the other hand, of the premise that at some level a subtle dimension of consciousness that allows for the karmic process to maturate and bear fruit, persists or operates at a level beyond this life-time-only stream of subjective conscious events.

BIBLIOGRAPHY

Primary Sources

Dharmakīrti, *Pramāṇavārttika* ed. Pandeya, Ram Chandra. *The Pramāṇavārttikam of Acārya Dharmakīrti. With the Commentaries Svopajñāvṛtti of the author and Pramāṇavārttikāvṛtti of Manorathanandin.* Delhi: Motilal Banarsidass, 1989.

Majjhima Nikāya I-III, ed. V. Trenckner, R. Chalmers, Pāli Text Society, London 1888-1902.

Suttanipāta, ed. D. Andersen, H. Smith, Pāli Text Society, 2nd ed. 1968.

Śāntarakṣita, *Tattovaṣaṅgraha*, ed. Śāstri, Svāmī Dvārikadāsa, *Tattvaṣaṅgraha of Āchārya Śāntarakṣita with the Commentary 'Pañjikā' of Shrī Kamalaśīla* vol. 1-2, Vārāṇasī: Bauddha Bhāratī Series, 1968.

Vasubandhu, *Abhidharmakośabhāṣya*, ed. Pradhan, P. *Abhidharmakośabhāṣyam of Vasubandhu*, revised by A. Halder, Patna: K.P. Jayaswal Research Institute, 1975.

Vasubandhu, *Karmasiddhiprakaraṇa*, Étienne Lamotte (tr.) *Karmasiddhiprakaraṇa: le traité de l'acte de Vasubandhu*, Bruxelles MCB, 1936.

Secondary Sources

Aloimonos, Y. ed. *Active perception.* Hillsdale, NJ: Erlbaum, 1993.

Bhattacharya, K. *L'Ātman-Brahman dans le bouddhisme ancien* Paris: École Française d'Extrême Orient, vol. 90, 1973.

Blackmore, S.J., Brelstaff, G. Nelson, and T. Troscianko, "Is the richness of our visual world an illusion? Transsaccadic memory for complex scenes," *Perception* 1995, 24: 1075-81.

Changeux, J-P. and Ricoeur, P. *What Makes Us Think?* Princeton: Princeton University Press, 1998.

Collins, S. *Selfless Persons: Imagery and Thought in Theravāda Buddhism*, Cambridge: Cambridge University Press, 1982.

Eagleman, D. M. "Visual illusions and neurobiology," *Nature Reviews Neuroscience* 2 (2001): 920-906.

Fodor, J. A. "The Dogma that Didn't Bark: A Fragment of a Naturalized Epistemology," *Mind* (1991) C (398) 201-220.

- Harvey, P. *The Selfless Mind: Personality, Consciousness and Nirvāṇa in early Buddhism* Richmond: Curzon Press, 1995.
- Kim, J. *Supervenience and Mind*, Cambridge: Cambridge University Press.
- Lakoff, G. *Women, Fire, and Dangerous Things. What Categories Reveal about the Mind*, Chicago: University of Chicago Press, 1987.
- Lakoff, G. and Johnson, M. *Philosophy in the Flesh. The Embodied Mind and its Challenge to Western Thought*. New York: Basic Books, 1999.
- Larson, G. "Karma as a "Sociology of Knowledge" or "Social Psychology" of Process/Praxis," in W. Doniger O'Flaherty ed. *Karma and Rebirth in Classical Indian Traditions*. Berkeley: University of California Press, 1980.
- Lusthaus, D. *Buddhist Phenomenology: A Philosophical Investigation of Yogācāra Buddhism and the Ch'eng wei-shih lun*. London: Routledge Curzon, 2002.
- Pessoa, Luiz, Noe, Alva, and Thompson, Evan, "Finding Out About Filling In: A Guide to Perceptual Completion for Visual Science and the Philosophy of Perception," *Behavioral and Brain Sciences* (1998) 21: 723-802.
- Thompson, E. "Empathy and Consciousness," *Journal of Consciousness Studies* 8, (2001) 5-7: 1-32.
- Varela, F. "Neurophenomenology: A Methodological Remedy for the Hard Problem," in *Journal of Consciousness Studies* (1996) 3: 330-350.
- Varela, F.J., Thompson, E. and Rosch, E. *The Embodied Mind: Cognitive Science and Human Experience* Boston: MIT Press, 1991.