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 some 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 ingenuous 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. 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 humanistic 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 research into Buddhist culture can be pursued across a variety of disciplines.

One response to the humanistic approach is to step outside the norms of scientific rationalism and adopt a thoroughly indigenous perspective. From the

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1 MN III, 178-9
standpoint of the Buddha’s 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 an indigenous 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 conceptual schemes 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 scheme 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 nineteen century).”

While I recognize the value of operating within the bounds of the traditional account, in the present inquiry 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 neurophenomenological account of karma. Acknowledging the demand for naturalist explanations of human and social interaction, such an approach nevertheless recognizes the irreducible nature of conscious experience. Neurophenomenology, a neologism introduced by the neurobiologist Francisco Varela, is here used in the broader sense of its original definition as the attempt “to marry modern cognitive science and a disciplined approach to human experience.” 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.

The theme of this article is that the doctrine of karma 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 performed intentionally, 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. 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 interdependent 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, this aspect of karma 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. 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 regarded conceptual construction or imagination (kalpanā) as a secondary, somewhat imperfect, cognitive modality that served as a counterfactual example for how perception, the most authentic source of knowledge, was defined. Conceptual construction thus came to be completely dissociated from direct perception.

For the early Buddhists the rejection of a permanent self as the agent (karman) and enjoyer (bhojin) of sensory activity posed a significant challenge. For instance, Harvey aims to correct the view of early scholars, who interpreted certain canonical passages (e.g., AN I, 149–50) as advocating the notion of self as an unchanging witness (sakkhi). As Harvey contends in his criticism of the above view, “the ‘self’ which witnesses ... probably refers to deeper aspects of citta acting as ‘conscience’.” Harvey’s suggestion is that the Buddha did not

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4 SN 666.
5 See, for example, AKbh 3.19: etena prakāreṇa kleśakarmahetukaṃ janma taddhetukāni punaḥ kleśakarmāṇi tebhyaḥ punarjanma ityanādi bhavacakraṃ veditavyaṃ.
6 For a detailed treatment of the metaphysical and pragmatic implications of the doctrine of no self, see Collins (1982) and Harvey (1995).
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 (viññāṇam anattā); (4) that it is not possible to speak of a self apart from experience; (5) that the false sense of self comes from using the personal pronouns ‘I’ (ahaṃkāra) and ‘mine’ (mamankāra).

In his analysis of the Abhidharma theory concerning rebirth and causation, Vasubandhu defines karman as volition (cetanā) and its ensuing result. However, karman involves two distinct forms of activity, the volition itself and the intentional act (cetayitvā). In his commentary on the above definition of karman, Vasubandhu further explains that the 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 (kāyavāṅmanaskarmāṇi). These respectively correspond to the basis (samutthāna), the self-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.

According to the Abhidharma account, as found in Vasubandhu’s 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 the 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 actions. An action — such as, for

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10 See AK 1b (P 192, 10): cetanā tatārtaṃ ca tat /.
11 See AKBh ad cit (P 192, 13–15).
instance, the intention of a breaking rules (āsāṃvara) — is guided by volition and by the traces left by this volitional act.\textsuperscript{12}

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, are best suited for answering questions about knowledge and belief formation, while the problem of justification can still be pursued in a traditional fashion. However, the sciences of cognition, like other sciences, rely on observation, and observation leads to the old philosophical problem of the difference between “seeing” and “seeing as.”\textsuperscript{13} In the Buddhist philosophical tradition this distinction is instrumental for distinguishing conception-free from conception-laden cognitive states, and for stating that only the former deserves the proper label of perception.

Although the examples provided in the Buddhist literature 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.

\textsuperscript{12} See, for example, AKBh ad AK IV, 27d (P 213, 9): avijñaptivādasāṃvaro ’pi nāsti dravyata iti sautrāntikāh. / sa eva tu pāpakriyābhisanḍhir saṃvarah / sānubandhe yatahku salacitto ’pi tadvānucyate /.

\textsuperscript{13} In one of his attempts to work out the implications of this difference for a 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, J. A. 1991. “The Dogma that Dindn’t Bark (A Fragment of a Naturalized Epistemology),” \textit{Mind} 100:, p. 200).
It is important to understand that mind as currently understood in the scientific literature is, in Thompson’s own words, “an abstraction from, and hence presupposes, our empathic cognition of each other.” Operating with a model of the mind that departs from the standard cognitivist-computational model, Varela and Thompson view mental processes as “embodied in the sensorimotor activity of the organism and embedded in the environment.” This is what Varela and Thompson refer to as the embodied and enactive model of the mind, a model relying 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.

An embodied and embedded consciousness in which the patterns of co-determination are operative at both ends raises the issue of causal powers from the direction 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 the “semantic amalgamation.” 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.” 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

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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.  

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 in discussions concerning karma and rebirth. More specifically, for the Buddhist philosophers the problem of embodiment is framed by the dispute over the relationship between cognition and the body. This issue is addressed in detail, for instance, in Dharmakīrti’s refutation of materialism in his dispute with the Cārvāka philosopher Kambalāśvatara, where he defends 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.

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 corresponds approximately 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 Kamalaśīla in their own refutation of materialism in the Tattvasaṃgraha) is simply an extension of his theoretical commitment to the Yogācāra psychology and, indirectly, to the Buddhist principle of the momentary nature of all phenomena. That this focus on cognition as a 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

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18 ibid, p. 14f.
19 Pramāṇavārttika, 41 (S 19, 1–3): pratyekamupaghāte’pi nendriyāṇāṃ manomateḥ / upaghāto’sti bhānge’syāstvasāṃ bhāṅgaś ca drṣyate //.
given in direct experience. This convergence in clearly illustrated by Dan Lusthaus:

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.20

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. In addition, we have learned that the richness of our perceived world is the result of top-down interpretive and imagistic processes, responsible for fusing together in a coherent manner the perceptual input. 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.”21 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 neurons 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.22

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

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 the notion 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. On such a view 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 positive human experiences.