

Mind, Death and Supervenience: Towards a Comparative Dialogue

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Introductory Remarks

The old cliché has it that there are two things of which one can be certain in life, but whilst there is relatively little to say about taxes, the topic - and concept - of death raises a host of philosophical issues. This paper seeks to examine death from the perspectives of both Western Analytic¹ philosophy and the Vajrayāna tradition. Rather than attempting to give a complete account of what death is, and how it is undergone - for such would be a monumental undertaking - the aims of the present paper are much more modest. Our goal is simply to find a way to bring Vajrayāna and Western Analytical perspectives into a genuine dialogue concerning mind and cognition, and we do this by examining what each has to say on the specific topic of death. Simply staking out the conceptual space within which that dialogue can take place is enough for the present paper; conducting the debate is a much greater task that we postpone for a later date.

We start by outlining the prevailing physicalism—in both metaphysical and epistemic senses—in contemporary analytic philosophy of mind, and showing how this is closely connected to the Western Analytic perspective on death in the practical settings of law and medicine. The concept of ‘supervenience’ is one way of articulating a kind of minimal physicalism; we argue that it is therefore shared by otherwise conflicting physicalist viewpoints within the Western Analytic tradition, and can also serve as the focal point for generating dialogue between Western Analytic and Vajrayāna perspectives. Accordingly, we briefly outline the Vajrayāna perspective on death, before returning to the question of supervenience, in a later section, in order to spell out what Vajrayāna would or should say about the concept. We conclude with some speculative comments about how the dialogue thus engendered will pan out.

I. Western-Analytic Perspectives

Physicalism:

It would be fair to say that within Western Analytic philosophy, the dominant conception of mind and cognition is a physicalist one. Physicalism comes in several different forms, but at root lies the conviction that everything in the universe - i.e., everything that exists - is ultimately physical. (For this reason, ‘physicalism’ and ‘materialism’ have sometimes been used as synonyms, though we avoid this usage; as contemporary science makes quite clear, there are plenty of *physical* phenomena - forces, fields and the like - to which it would be a strain to apply the cognate terms ‘matter’ and ‘material’). In philosophy of mind, this physicalism amounts to a rejection of theses that account for mentality in terms of *non-physical* substances or properties; thus, the Cartesian view (arguably also shared by the Abrahamic religious traditions) that mind is a

¹ We use the term “Western Analytic” to refer—broadly but probably inaccurately—to refer to the approach to philosophical problems and methods largely employed in the bulk of anglophone philosophy departments in (e.g.) the US and the UK. As with the application of any label, there are inevitably problem or puzzle cases, and neither should it be assumed that we buy into such sweeping distinctions, but insofar as it “western analytic” philosophy is often contrasted with “continental” or “eastern” philosophy, we hope the reference is clear.

non-spatial mental substance (or immaterial soul) is set aside for a host of reasons that need not concern us here. Physicalism about the mind is largely seen as the ‘only game in town’ (Tim Crane, for example, quite reasonably points out: “there is in general a consensus that some form of physicalism is the solution to the [mind-body] problem.” (1994, p.479)), and even though there are many variants of the view, our contention is that they all share a common base (to which we will return later).

Perhaps the most contested issue within physicalism concerns the extent to which it entails a form of *reductionism*. Reductionism is usually taken as a doctrine about explanation; if A is reducible to B, then A-related phenomena (properties, events, processes) can be fully explained in terms of B-related phenomena (properties, events, processes). In this sense, ontological reduction is literal; the fact that everything about A can be explained in terms of B means that A is no longer required in our ontology - it is, as common parlance has it, ‘explained away’ and our ontology is *reduced* in size. The classic example is the reduction of thermodynamics to statistical mechanics; given that facts about temperature can be completely explained in terms of facts about the motions of particles, ‘temperature’ no longer features in our ontology. At best thermodynamic *talk* is retained as a linguistic shortcut for what we know is really something else. The parallel question in philosophy of mind, therefore, is whether mental states and processes are reducible in this sense to physical (i.e., some combination of neural, bodily and environmental) states and processes. Reductive physicalists of various stripes (e.g., Place, 1956; Kim, 1998) hold that they are, whereas non-reductive physicalists (e.g., Broad, 1925; Davidson, 1980) hold that they are not.

During the latter half of the twentieth century, Western Analytic philosophers of mind seemed to converge on what has been described as the ‘anti-reductionist consensus.’ Arguments from multiple-realizability (Putnam, 1975) and the absence of psychophysical ‘bridge laws’ (Davidson, 1980) led many to conclude that whilst mental states are indeed physical, the *reduction* of the mental to the physical (in the explanatory sense outlined above) is not possible. Clearly, formulating such an account is a subtle matter of navigating between the Scylla of reductionism and the Charybdis of substance dualism; indeed, whether non-reductive physicalism is actually a coherent position is a matter of some controversy. But we need not address that matter here - all we need note for now is that there are (at least) two significantly different ways of adopting a physicalist metaphysics. In the next section, we’ll show that these different physicalisms must share a common thesis of supervenience, and it’s *that* concept that will be most useful in generating the dialogue with the Vajrayāna tradition that we seek.

For now, let us note one potentially tricky issue - the issue of mental causation. A moment’s reflection reveals many cases where, as we might ordinarily put it, the mental can exert a causal influence on the physical; a decision leads to an action, the sensation of itching leads to the behaviour of scratching. Less anecdotal examples include the fact that certain types of cognitive activity (such as solving a mathematical puzzle) can delay the onset of a neurophysiologically-based epileptic seizure (see Thompson and Varela, 2001), and that certain meditative practices found in gTuumo yoga can result in physical changes in body temperature and metabolic rates (Benson et al., 1982; Cromie, 2002). These examples seem to be *prima facie* cases where the mental, *qua mental*, exercises causal powers ‘downwards’ onto the physical. We might legitimately ask, therefore, how physicalist viewpoints can account for them.

The reductionist answer is largely deflationary; reductive physicalists effectively deny that there is such a thing as genuine downward causation. On this view, since mental phenomena can be explained in physical terms, any apparent instance of mental causation is *really* just a case of (unproblematic) physical causation. By contrast, the non-reductive

view embraces mental causation at the risk of abandoning physicalism; after all, if the mind *is* physical but cannot be *explained* as such, the only way to say why itching leads to scratching seems to accord mentality with unique causal powers that are *absent* from the physical, and this is precisely what the substance dualist contends.. It is this tension that has led philosophers such as Jaegwon Kim to describe non-reductive physicalism as an ‘unstable halfway house’ - you can have physicalism if you’re willing to have reductionism, but you can’t have the former without the latter, so the claim goes.

The nuances of this debate need not concern us for now. What’s important is that *both* reductive and non-reductive physicalist positions face problems in accounting for genuine mental-physical causation (the former counterintuitively denies it, the latter embraces it at the risk of abandoning physicalism). The importance of this fact will become apparent in another section of this paper, where we consider Vajrayana’s requirement of genuine mental causation. For now, we turn to the Western treatment of death.

Death

In contemporary western societies, death is one of the most paradoxical of phenomena: it is inevitable, but probably the most feared event; it happens to all of us, but is generally a taboo topic of discussion. We have physicalized, sanitized and isolated death from common view. We have pathologized it and expended great medical effort to stave off its inevitability. Medicine has had great success in creating procedures and machinery to override the body’s essential but failing functions. Thus, in the last sixty years, the question has arisen as to how to define death. This task has been ceded to medicine, as death is now considered mainly a pathological and secular matter.

Prior to the wide-spread dissemination of defibrillators and mechanical respirators in the 1960’s the standard criterion of death was the cessation of cardiopulmonary function: an organismic criterion.² The three organs considered critical were heart, lungs and brain. The function of lungs could be tested by use of a mirror held under the nose, the heart could be assessed by palpating the pulse and termination of brainstem function could be determined by lack of consciousness, lack of awareness and lack of responsive behaviour. With the advent of mechanical intervention, however, lung and heart function could be artificially assisted with the consequence that the definition of death became less clear. Was one dead or alive when one’s essential functions were artificially maintained? According to the old (American) cardiopulmonary standard one was alive so long as cardiopulmonary functions remained, either assisted or unassisted. The current (American) legal criterion of death is the whole brain standard, which judges one as dead even if cardiovascular function is artificially maintained so long as the whole brain is irreversibly non-functional (molecular function of the brain alone is ignored). According to this criterion, death ensues when the whole brain - lower brain and higher brain - irreversibly ceases to function; this includes the brainstem (which governs autonomic functions), the cerebrum (which, in part, governs conscious awareness) and the cerebellum (which governs voluntary muscle movement). This standard is generally associated, in the disjunctive, with the cardiopulmonary standard according to which death ensues when lung and heart functions terminate. That is, death is constituted when either standard is met. These criteria were legally codified in the Uniform Determination of Death Act, adopted by most of the states of the United States, the text of which states:

²DeGrazia, David (2007). *The Definition of Death*. Stanford Encyclopedia of Philosophy: <http://plato.stanford.edu/entries/death-definition/>

Determination of Death. An individual who has sustained either (1) irreversible cessation of circulatory or respiratory functions or (2) irreversible cessation of all functions of the entire brain, including the brainstem, is dead...³

According to the view embodied in the Act, death is not seen as a process but rather as an event (i.e., the instantiation of a property at a time - see Kim, 1976) or a state (i.e., the end result of the instantiation of that property). It occurs at a moment in time, although a medical determination must be made as to whether this state is irreversible. So a period of time may lapse between cessation of neurophysiological function and medical determination of irreversibility.

It is worth noting that according to the Act the cessation of brain/mental function may either be assumed or that criterion may be dispensed with altogether when heart or lung functions stop. Thus, the Act explicitly codifies the physicalist understanding that mental function is dependent upon and determined by physical function. This relationship of dependency and determination, as we shall discuss in detail later, is usually referred to as 'supervenience' in the Western Analytic tradition.

Supervenience

Physicalism is often characterized using the notion of 'supervenience,' a philosophical term of art designed to provide a positive account of the relationship between mental and physical events. In one oft-cited passage, arguing for non-reductive physicalism, Donald Davidson writes:

“Although the position I describe denies that there are psychophysical laws, it is consistent with the view that mental characteristics are in some sense dependent, or supervenient, on physical characteristics.” (Davidson, 1980, p.214)

Kim (1998) suggests that, following Davidson, talk of “supervenience” quickly caught on in philosophy of mind precisely because it appeared to offer a positive account of the relationship between mental and physical phenomena. Subsequent literature came to be dominated by talk of supervenience as an apparently viable statement of physicalism-without-reductionism. Davidson elaborates on what it means for the mental to be dependent on, or determined by, the physical thus:

“Such supervenience might be taken to mean that there cannot be two events alike in all physical respects but differing in some mental respects, or that an object cannot alter in some mental respect without altering in some physical respect.” (Davidson, 1980, p. 214)⁴

Davidson's elucidation of the supervenience relationship, then, consists of two logically equivalent (but differently emphasised) claims, to wit:

- (D1) Things that are identical in all physical respects will be identical in all mental respects; and,
- (D2) Things cannot change in their mental respects without also changing in physical respects.

³Uniform Determination of Death Act: National Conference of Commissioners on Uniform State Laws, 1981

⁴ It is worth noting, that, of Davidson's two explications of the concept of supervenience here, the first is for events, whilst the second is for objects. It is unclear from Davidson's somewhat elliptical comment, whether he intends this distinction to do any philosophical work—in what follows, we shall ignore it.

Proposition D1 describes a relationship such that the mental is *determined by* the physical, whilst D2 describes a relationship such that the mental *depends on* the physical; taken together, their conjunction is usually understood as constitutive of the supervenience claim.⁵ Further, we can refine D1 and D2 so as to capture the varieties of supervenience that appear in the literature. If we add the specification that they hold *within* a possible world, and we replace ‘object’ with ‘individual,’ we have the notion of “weak supervenience”: no possible world contains two individuals who have all the same physical properties but different mental properties. According to weak supervenience it is possible, however, that two physically identical individuals in *different* possible worlds should have different mental properties.

Thus construed, weak supervenience runs into a potential problem, famously spelt out by Kim (e.g., 1982, 1990). According to weak supervenience, there is nothing *necessary* about the covariance between mental and physical properties; weak supervenience allows that there are other possible worlds where physical duplicates have different mental properties (or even no mental properties at all).⁶ This causes a problem for the ability of the weak supervenience claim to capture the notions of dependency and determination. If x's mental properties really were dependent on and determined by x's physical properties, then it should not be possible that a physical duplicate of x could fail to be a mental duplicate of x.

One way to sharpen this point is to think about how we could explain the fact that, despite being physically identical, x-in- w_1 had different mental properties from x-in- w_2 . We could not explain the difference in terms of their physical properties alone, since, *ex hypothesi*, x-in- w_1 and x-in- w_2 are physically identical. The only way we could explain the difference in mental properties would be by reference to some factor *other than* their physical properties. In this case, however, the mental properties would count as at least partially dependent on and determined by that extra factor, in which case the supervenience relationship would have failed to capture the dependency of x's mental properties on x's physical properties.

One might think that a stronger formulation of supervenience (which denies the possibility that x-in- w_1 and x-in- w_2 could be physically identical but mentally different) might not fall prey to such difficulties. Adding the specification that D1 and D2 hold for individuals *across* possible worlds, generates this notion of “strong supervenience”: there can be no two individuals (even in different possible worlds) who have all the same physical properties but different mental properties. In these terms, the dependency of the mental on the physical is held to be necessary.

Kim argues that such a construal of supervenience falls prey to similar problems. Strong supervenience tells us that there is a relation such that if x-in- w_1 and x-in- w_2 have all the same physical properties, they *necessarily* have all the same mental properties. But Kim suggests that this construal of supervenience *still* fails to capture a dependency relationship since it only expresses the idea that the mental and physical properties of x *covary*. Covariance alone does not imply that one class of properties depends on another, since covariance is a symmetrical relationship, whereas dependence and determination are not. Accordingly, there are three possible explanations for the covariance between x's mental properties and x's physical properties; first, they could covary because the mental

⁵ Kim's (1998, p.9) definition, for example is equivalent to the conjunction of D1 and D2, with appropriate modal qualifications. He writes "Mental properties *supervene* on physical properties, in that [D2] necessarily, for any mental property *M*, if anything has *M* at time *t*, there exists a physical base (or subvenient) property *P* such that it has *P* at *t*, and [D1] necessarily anything that has *P* at a time has *M* at that time." We might call D1 the "no zombies" clause, and D2 the "no ghosts" clause.

⁶ This is to say that, according to weak supervenience, it is possible for an individual to have a physically identical zombie twin, as long as the two are in different possible worlds.

depends on the physical; second, they could covary because the physical depends on the mental; third, they could covary because both depend on some *third* factor. Only the first of these possibilities expresses the dependency relationship that supervenience-physicalism was supposed to capture. The trouble is that the concept of strong supervenience itself provides no way of adjudicating between the three possibilities, and so, once again, cannot do the job it was supposed to.

Kim concludes that since supervenience fails to capture the notion that the mental is dependent on or determined by the physical, it fails as a theory of the mind-body relationship. On the one hand, as we have seen above, the conjunction of D1 and D2 does not do enough to say *that* the mental depends on and is determined by the physical, let alone spelling out *why* that relation holds; Kim (1998, p. 13) writes: "...the mere claim of mind-body supervenience leaves unaddressed the question of what *grounds* or *accounts* for it." On the other hand, reductionist and anti-reductionist physicalists alike can agree that physical duplicates are also mental duplicates, and that all mental changes correspond to physical changes. Thus, Kim argues, since the conjunction of D1 and D2 are tenets of both reductive and non-reductive physicalism, supervenience cannot be an independent position on the mind-body problem.

Because of these problems, Kim says, all supervenience can do is to establish a kind of "minimal physicalism" (D1 and D2 are, after all, denied by Cartesian substance dualists and Berkeleyan idealists). We are inclined to agree; one of the desiderata of a physicalist mind-body theory is that it should say something about *how* or *why* the mental depends on and is determined by the physical over and above asserting the mere *existence* of this dependency and determination. We might say, therefore, that D1 and D2 need to be supplemented with a further account of the mind-body relation; the difference between reductive and non-reductive physicalism is, therefore, between different ways of supplementing the supervenience claim.

For the present paper, however, this points to an important interim conclusion. Given that the dominant Western Analytic conception of mind and cognition is a physicalist one, and given that supervenience gives us a minimal physicalism, it follows that supervenience is a shared concept for pretty much all of Western Analytic metaphysics of mind. In order, then, to generate a dialogue between Western Analytic conceptions of mind and the Vajrayāna tradition, we need to see what the latter would or could say about the concept of supervenience. It is to this question that we turn in the remainder of the paper.

II. Vajrayāna Perspectives

Two Realities/Truths:

Buddhism approaches the understanding of the mind pragmatically and phenomenologically and secondarily, analytically.⁷ Perhaps this is because the main purpose is the elimination of suffering (*duḥkha*), and the path to accomplish it is experiential.⁸ The experiential nature is demonstrated clearly by the doctrine of dependent origination (*pratīyasamutpāda*). Common to Theravada, Mahāyāna and

⁷This is not to say that analysis in Vajrayāna is unimportant but rather that analysis is subservient to experiential insight. But consider Jay Garfield according to whom rationality in Buddhism is to be most highly praised since it is necessary to subvert reason and to articulate non-conceptual insight. *Mādhyamaka and Methodology: A Symposium on Buddhist Theory and Method*. You Tube accessed 20 September 2011. (<http://www.youtube.com/watch?v=nWY0Tyhu9MM>)

⁸In the First Turning of the Wheel of Dharma, Śakyamuni Buddha proclaimed the Four Noble Truths as the means to extricate oneself from suffering. The Noble Eightfold Path, the Fourth Noble Truth, stated that the means to do this were Right Views, Right Aspirations, Right Speech, Right Conduct, Right Livelihood, Right Effort, Right Mindfulness and Right Rapture. Coomaraswamy (1964) p. 38

Vajrayāna, the doctrine describes the twelve links that constitute the causal nexus by which ignorance of reality (*avīdya*) - the first link - leads to old age and death - the last link. Conversely, the same doctrine also describes how the same twelve links can lead to freedom from ignorance, old age and death. In each case the critical fulcrum is the mind. The doctrine of dependent origination, initially stated by Śakyamuni Buddha, propounds the process according to which one inexorably and inevitably either devolves to perceive mere appearances or evolves to perceive reality as it is.⁹ Much like a physician who diagnoses an illness and its causes and then proceeds to treat it, the Buddha diagnosed: the illness, suffering, and its causes - the twelve links of dependent origination. The way to liberation, he said, was the Noble Eightfold Path (See footnote 8).

It is important to recognize that the doctrine is not a metaphysical theory in the sense normally employed by western analytic philosophy. Rather, it is a means of practically analyzing the chain of causation by which suffering arises and can therefore be eliminated. According to Vajrayāna, dependent origination has three levels of interpretation.¹⁰ At the first level, each of the twelve links, individually and jointly, is considered to be conventionally but not ultimately real. That is, the manner in which the links appear does not correspond with the way they actually are. And yet, it would be false to say that the links do not exist. They exist conventionally in the sense that the links explain the nexus of causation in which most of us are entrapped and they appear real to the conventional mind (a mind which misperceives appearances as reality). For example, death appears conventionally to be something inevitable and inherently existing. However, according to the teachings, when ignorance of ultimate reality is eliminated the chain of dependent origination is broken; birth, old age and death no longer occur.¹¹ So, we might ask whether conventional reality supervenes on ultimate reality? This will be discussed below.

At a deeper level, dependent origination is understood to apply to all phenomena insofar as everything is composed of parts and the whole does not exist independent of its parts. So, for example, under analysis, a table is said to exist dependent upon its parts and the parts, in turn, can be further and further broken down until the distinction between subject and object is dissolved. The analysis is captured by Dzogchen Penlop Rinpoche:

“It is important to remember that the purpose of analysis is to determine if a particular object truly exists on the absolute level. That is what we are looking at in this process. We do not question whether it is there, before our eyes, on the relative level. In the very beginning, before our analysis, we have both an object and a subject: an object of perception and a perceiving consciousness. During the analysis, when we arrive at a more subtle level of the object’s material existence, then the subject side - the perceiving consciousness - apprehends it. When we reach the final stage of finding “nothing at all,” then the perceiving consciousness is transformed. It is no longer a “perceiving” consciousness because the object of perception and the act of perception are discontinued. The true existence of the object is no longer there, what is there is a transparent appearance, and an equally transparent awareness. There is no solid existence anywhere. Without solid existence, there is no way to delineate or define identity. Therefore, the separation between self and other, subject and object, becomes illusory. What occurs in that

⁹ “That being present, this becomes; from the arising of this, that arises. That being absent, this does not become: from the cessation of that, this ceases” Majjhima Nikāya, ii 32 quoted in Coomaraswamy (1964) p. 94

¹⁰ Dalai Lama (2000) p. 35-37

¹¹ Each of the four Schools of Vajrayāna Buddhism has given a somewhat different interpretation of the two truths. For our purposes however, we need not concern ourselves with these differences. For a more detailed discussion see Newland (1999), Takchoe (2011)

moment is the direct apprehension of the ultimate nature of mind which is beyond the subject-object split.”¹²

At a still deeper level of interpretation, phenomena are imputed to exist dependent upon their designations and concepts. The self, for example, is said to exist in such a manner, but when one searches for that which the term ‘self’ designates, no such entity can be found. Therefore, the self too is conventionally and not ultimately real.¹³ So the question arises: what is ultimately real and what is its relationship with conventional reality? It is to these matters we now turn.

Mind:

For Vajrayāna, the two levels of reality play a prominent role in the understanding of mind. Mind is said to have two aspects, the discursive, discerning, dualistic mind and a deeper aspect referred to as the ‘nature of mind’ (Tib. *rigpa*, Skt. *sugatagarbha*). The former, which appears to inherently exist but in fact depends upon the survival of a person, is considered to be conventionally real (hereafter referred to as conventional mind). It plays an essential role in our navigation of the conventional world but owes its existence to the nature of mind. The nature of mind, which continues to abide lifetime after lifetime through eternity, is considered to be ultimately real (though, from the perspective of ultimate reality, empty of inherent existence). What is the relationship between the nature of mind and conventional mind? There is a sense in which the question is meaningless as ‘relationship’ assumes the existence of two things. But the Vajrayāna position is that, from the perspective of ultimate reality, there is only one thing which, to the conventional mind, is misperceived as two. Restated from a western perspective the question might be rephrased, ‘in terms of conventional reality, what is the relationship between nature of mind and conventional mind?’ Conventional mind certainly *depends* on the nature of mind since it is an emanation of it. But it is only partially *determined* by the nature of mind. It is determined by the nature of mind insofar as that is its essence. Therefore, conventional mind is inherently pure and so the obscuration of ignorance can always be cleansed. However there is another factor that determines the content and function of the conventional mind: karma. It is karma that propels ignorance from the past to the present and obscures the nature of mind. Karma, a form of psychological momentum based upon past deeds, transmigrates from lifetime to lifetime with the mental continuum, and conditions cognition. But karma can be cleansed by meditation, contemplation and purification practices. This will be significant when we address the definition of supervenience directly in another section.

Non-physicalism

The Vajrayāna understanding of mind is properly categorized as non-physicalist. While the conventional mind may be dependent, in part, upon brain function this cannot be said of the nature of mind which is immaterial as a logical matter as well as experientially. Logically, if the nature of mind were material then it would be composed of parts and dependent on them. Furthermore, as discussed below, mind is said to continue to function after the body ceases function.

The relationship of nature of mind to the conventional mind is, depending on one’s philosophic perspective, either paradoxical or problematic. Conventional mind is said to be a natural emanation of mind as the rays of the sun are an emanation of the sun. But that analogy breaks down on closer examination because in the case of the sun and its

¹² Dzogchen Ponlop (2008) p. 64-66.

¹³ Dalai Lama (2000), p.36

rays both are physical whereas this is not the case with conventional and nature of mind. Furthermore, the sun and its rays are normally considered as separate whereas nature of mind and conventional mind are considered different aspects of one entity. One attribute of the nature of mind is pure, primordial awareness without object. The traditional analogy is to the vastness of the sky. It cannot be denied that conventional mind is heavily dependent upon and determined by neural correlates, the Vajrayanist might argue, but it is by no means clear that very subtle states of mind such as so called ‘clear light’ states will have neural correlates.¹⁴

Non-Reductionism:

While the nature of mind is the ultimate reality conventional mind cannot be metaphysically reduced to it in the same way the reductive physicalist would say that mind can be reduced to brain function as described in section two. Since conventional mind is said to be an indivisible aspect of the nature of mind it cannot be eliminated from our ontology. However, the question remains, could conventional mind be reduced to the nature of mind even though not eliminated? Recall that in section two we discussed two types of physicalism, reductive and nonreductive. Reductive physicalism would eliminate one entity, the mental, from ontology. Nonreductive physicalism would assert that mental function was in fact only physical but not explanatorily reducible to the physical. Can conventional mind be explainable in this way? We believe that the answer is no. Nature of mind can explain only the aspect of mind which is primordially aware. Karma, impelled by ignorance, explains the the aspect of mind which remains deluded.

Death in Vajrayāna Buddhism

The process of dying is referred to in Vajrayāna as “the painful bardo of dying”. Bardo is a Tibetan term which literally translates as “intermediate state”. Death takes place in two stages, outer dissolution and inner dissolution. Outer dissolution consists of the deterioration of the five physical senses and the elements that support them. First, the senses deteriorate. Then the elements that support them are re-absorbed - earth is absorbed into water, water into fire, fire into air and air into space. The dying person’s energy is concentrated at a point in the subtle body known as the heart centre. The breathing slows and finally stops. This is the point at which organismic function ceases. In the west, the person would be considered dead at this stage either by the cardiopulmonary or whole brain standards. However, this is when inner dissolution begins according to the Tibetan tradition. Now mind functions free of the body. Inner dissolution of gross and subtle levels of thought and emotion known as the three poisons—anger, desire/attachment and ignorance—occurs. The inner dissolution reverses the subtle process that occurred at birth. The teachings say that at birth, when father’s sperm and mother’s egg unite, consciousness enters the fertilized egg. During the development of the foetus the father’s essence migrates to the point of the foetus’ subtle energy body known as the crown chakra at the top of the head. The mother’s essence migrates to a point in the subtle energy body four finger widths below the navel. So during the inner dissolution the father’s essence descends to the heart, the three poisons dissolve and awareness becomes pristine. The mother’s essence ascends to the heart and all desire/attachment dissolves. When the two essences meet at the heart all the mental states constituting ignorance are dissolved. Duality vanishes and the ground luminosity—naked awareness—dawns. This is also called “the mind of the clear light of death”. This consciousness is the innermost subtle mind, the nature of mind, Buddha nature, the real

¹⁴Dalai Lama (1997) p.164-171

source of all consciousness. This is the point at which Vajrayāna would consider one to have died. One who, during his lifetime, has stabilized the nature of mind can continue to abide in the mind of the clear light of death and it is traditional to remain in this state for a period of about three days. If one is successful it is said that during this time the heart remains warm and the body does not decay. So according to Vajrayāna, there is a period during which mind functions free of the physical body but nevertheless has a physical effect. This point is crucial to an understanding of supervenience from a Vajrayāna perspective.

For the dying Vajrayāna practitioner, a range of meditations may be engaged in to achieve liberation depending on one's level of realization. The practitioner who, during his lifetime, has stabilized the nature of mind, continues to abide in it throughout the dissolution process and thereby obtains final liberation. For the practitioner who has not stabilized the nature of mind, during the dissolution process, he may practice Guru Yoga. This is the practice of visualizing and uniting with a deity or Buddha (yidam) which represents wisdom and compassion. So as the outer dissolution occurs, one might visualize this being in the various subtle energy centres and finally unite with it. The yidam is understood to be a representation of one's enlightened mind. Through the practice of repeatedly visualizing the yidam and uniting with it while alive one comes to realize that the enlightened mind of the yidam and one's own mind are not separate.

Yet another method to assist in the transition is the technique of p'howa. It is a technique in which the consciousness of the dying person unites with the yidam Amitabha Buddha, who represents compassion.

For a period of forty-nine days after death the practitioner may be guided through the bardo of dying, the luminous Bardo, and the bardo of rebirth by recitation of the Bardo Thodol more commonly known as the *Tibetan Book of the Dead*. The book recites the experiences one is likely to encounter in these bardos and provides guidance to liberation – it, being understood that all one's bardo experiences are solely the manifestation of the contents, proclivities and conditioning of one's conventional mind from all past lives. One gains liberation by realizing this.

Downward Causation:

It seems clear that, from the Vajrayāna perspective, 'downward causation' is accepted as an empirical fact. Most dramatically, as mentioned above, the teachings say that one who has stabilized the nature of mind during one's lifetime, in death, maintains a surprising amount of bodily integrity for an extended period of time. This integrity is not maintained by physiological function but rather by the immaterial mind.

To summarize, in Vajrayāna, the nature of mind is conceived as the ultimate reality. Conventional mind may obscure it but because it is never permanently stained, the obscurations can always be removed. Buddhist practices, mostly mental, are designed to accomplish this. It is understood that training the mind properly clears these mental obscurations. The conventional mind is said to be an emanation of the nature of mind and as such, is not a separate entity. In the process of dying and after death one experiences one's mind both with all its obscurations and in its pristine state. If one fails to recognize and abide in the nature of mind while in the bardo of death one experiences all the contents and proclivities of one's deluded mind, both pleasant and unpleasant, and ultimately is reborn with those mental tendencies intact. Thus, the nature of mind is obscured in the next life.

III. Towards a Dialogue

Given the considerations of the foregoing sections, an important and interesting parallel emerges. We are faced with the situation where a central concern in both Western analytic and Vajrayāna perspectives can be characterised in terms of “levels” and the relation between them; in the Western analytic approach, we are concerned with the relation between the physical and the mental in the “layered picture of reality,”¹⁵ whilst in the Vajrayāna approach, we are concerned with the relationship between the nature of mind conceived as the ultimate reality, and the conventional mind conceived as an emanation of it. It is thus appropriate to ask whether these inter-level relationships might be characterised in a similar fashion, and for the purposes of the present paper we propose to consider whether the concept of supervenience is adequate to such a task.

More specifically, we might return to the two propositions (considered earlier) that constitute the Western analytic supervenience claim, in order to see whether they can be re-deployed in a way that adequately describes the relationship between the nature of mind and the conventional mind. We must ask whether, according to Vajrayāna, it would be correct to say that:

- (D1') Change at the level of nature of mind will result in identical change at the level of the conventional mind; and,
- (D2') Change cannot occur at the level of the conventional mind without change also occurring at the level of nature of mind.

Before moving on to discuss this question, let us just pause to note that whatever the answer, our goal in this paper has been met. We stated that our aim was to bring Western analytic and Vajrayāna perspectives into a genuine dialogue where previously we felt they ran the risk of talking past each other. Here we are now considering whether a concept borrowed from Western analytic philosophy of mind can be usefully deployed in Vajrayāna metaphysics. Whether the answer is “yes” or “no,” it strikes us as fair to say we have found some common ground on which the discussion can take place. In fact, if the answer is “yes” then we can see that the contrast between Vajrayana and Western analytic perspectives concerning mind and cognition is a straightforward disagreement about which “level” is the most basic—no more problematic than any other metaphysical disagreement between viewpoints that nonetheless speak the same language. If, however, the answer is “no” (i.e., if D1' and D2' do not adequately capture the Vajrayāna view), then it remains to ask *why* and thus to pursue the dialogue further. Our hypothesis is that in fact the answer will be “no” for at least three reasons. Spelling them out and evaluating them is a matter for what we hope can be a fruitful ongoing dialogue (not to say another paper), but we will canvas them briefly here.

First, as we hinted earlier, supervenience in general (and its application to death in particular) has been developed within the Western Analytic tradition as an account of the relationship between states, properties and events considered synchronically (i.e., *at-a-time*). The Vajrayāna account of mind is quite clearly a *process* metaphysics (i.e., concerned with diachronic - *over* time relationships), and thus the concept of supervenience would need to be substantially re-worked (to apply to processes rather than states) in order to capture the Vajrayāna view. Even if such a re-working were possible, putting the matter in terms of the synchronic/diachronic distinction suggests that the Vajrayāna position may simply deny the dependency claim of D2'. Given that the present state of one's conventional mind is critically dependent on the the karmic influence of one's *past*, it is simply not the case that changes in one's present conventional mind bear

¹⁵ Kim (2002)

at all on the nature of mind; they could (counterfactually) come about in a way that depends solely on karma, with *no* change in the 'subvenient' nature of mind.

Following on from this, we can identify a second point of divergence that may lead us to doubt the veracity of D1' and D2'. The Western analytic concept of supervenience permits - nay, *requires* - the possibility of change in the subvenient base. This is clearly indicated by the wording of D2 - what it is for the mental to *depend* on the physical is for changes in the former to come about because of changes in the latter. Furthermore, we should note that D2 also permits the possibility that there could be changes in the physical (the subvenient base) without any corresponding changes in the mental; different brains might nonetheless implement the same mental states, and it is this possibility that gives us the important feature of multiple realisability. It is far from clear that the Vajrayāna tradition allows for changeability in the underlying nature of mind (considered as the ultimate reality); indeed it probably does not. If so, it is directly at odds with both the articulation of and motivation for the Western Analytic concept of supervenience.

Finally, to return to another issue we repeatedly mentioned earlier, given Vajrayāna's emphasis on *praxis* (e.g., meditative practice and what one must *do* during the process of death), it is quite clear that it requires a robust kind of mental process which exerts a causal influence on the physical (i.e., 'downward' causation). For example, as we mentioned, one who has stabilized the nature of mind during one's lifetime is able to remain in this state for about three days after bodily death, during which time the heart remains warm and the body does not decay. As we pointed out, this kind of downward causation is ruled out (or at least denied) by the reductive and non-reductive variants of Western analytic physicalism that nonetheless share the supervenience claim. This is precisely because, if the 'higher level' is accorded with its own causal powers, it is possible that both D1 and D2 (and thus, D1' and D2') could be violated by an exercise of these powers. Accordingly, we have yet more reason to think that D1' and D2' do not capture the intra-level relationships in Vajrayāna in the way that D1 and D2 capture them in Western analytic metaphysics of mind.

Needless to say, these brief reflections are necessarily speculative and will thus require significant work to flesh them out. But the mere fact that this "fleshing out" is possible is, we think, evidence for the viability of dialogue between two traditions that might otherwise simply talk past each other: a dialogue that we hope to have initiated.

Works Cited:

- Benson, Herbert; Lehmann, John W.; Malhotra, M. S., Goldman, Ralph F.; Hopkins, Jeffrey; Epstein, Mark D. (1982) "Body temperature changes during the practice of g Tum-mo yoga." *Nature* 295:234 - 236,
- Broad, C.D. (1925) *Mind and Its Place in Nature* (London: Kegan Paul)
- Coomaraswamy, Ananda K, revised by Dona Luisa Coomaraswamy (1964) *Buddha and the Gospel of Buddhism* (New York: Harper and Row)
- Crane, T. (1994) "Physicalism (2): Against Physicalism" in S. Guttenplan (ed.) *Blackwell Companion to the Philosophy of Mind* (Oxford: Blackwell) pp.479-484
- Cromie, William J. (2002) "Research: Meditation changes temperatures: Mind controls body in extreme experiments." *Harvard University Gazette*, 18 April 2002 (available at: <http://news.harvard.edu/gazette/2002/04.18/09-tummo.html>; retrieved September 16th, 2011)
- Davidson, D. (1980) "Mental Events" in his *Essays on Actions and Events* (New York: Oxford University Press)
- Hume, David L.A.Selby-Bigge (Ed.) (1968) *A Treatise on Human Nature* (Oxford: Oxford University Press)
- Kim, J. (1976) 'Events as Property Exemplifications', in M. Brand and D. Walton (eds.), *Action Theory*, Dordrecht: Reidel, pp. 159–77
- Kim, J. (1998) *Mind in a Physical World* (Cambridge, MA: MIT Press)
- Kim, J. (1982) "Psychophysical supervenience" *Philosophical Studies* 41:51-70
- Kim, J. (1990) "Supervenience as a Philosophical Concept" *Metaphilosophy* 21:1-27
- Kim, J. (2002). "The Layered Model: Metaphysical Considerations." *Philosophical Explorations* 5 (1):2 – 20.
- Lama, Dalai (2005) *The Universe in a Single Atom: How Science and Spirituality can Serve Our World* (London: Abacus)
- Lama, Dalai and Howard Cutler (1998) *The Art of Happiness* (London: Hodder and Stoughton)
- Lama, Dalai (ed.) Francisco J Varela (1997) *Sleeping, Dreaming, and Dying: An Exploration of Consciousness with the Dalai Lama* (Boston: Wisdom Publications)
- Lama, Dalai and Jeffrey Hopkins (ed. and trans) (2000) *The Meaning of Life* (Boston: Wisdom Publications)
- Newland, Guy (1999) *Appearance and Reality: The Two Truths in Four Buddhist Systems* (Ithaca, N.Y.: Snow Lion Publications)
- Ponlop, Dzogchen (2008) *Mind Beyond Death* (Ithaca, N.Y.: Snow Lion Publications)
- Punam, H. (1975) "The Nature of Mental States" in his *Collected Papers II* (Cambridge: Cambridge University Press)
- Ray, Reginald A. (2001) *The Secret of the Vajra World: Tantric Buddhism in Tibet*, Vol. 2. (Boston: Shambala)

Sogyal Rinpoche (1993) *The Tibetan Book of Living and Dying* (Ithaca, New York: Snow Lion Publications)

Thakchoe, Sonam “The Theory of Two Truths in Tibet” *Stanford Encyclopedia of Philosophy* (Summer 2011 Edition) Edward N. Zalta (ed.) <http://plato.stanford.edu/archives/sum2011/entries/twotruths-tibet/>

Thompson, E., and Varela, F. (2001) “Radical Embodiment: neural dynamics and consciousness” *Trends in Cognitive Sciences* 5(10): 418-425