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Doctrines about Life and a Relational Frame Analysis of Zen: Demythologization of Zen, Meditation and Nirvana

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Abstract

The paper addresses the original Zen (Ch'an) approach to the ontological problem concerning the existential paradox of life and death, and the demythologization of Zen as a special pathway for a sort of magic, spiritualistic or transcendental goal. This question is addressed with a behavioral analytic conceptualization that employs a Relational Frame Theory (RFT) based analysis. Previous behaviorist approaches are criticized for contributing to the myth of Zen. RFT addresses the basic and complex relational discriminations involved in the life/death issue, and allows us to construct a taxonomy of life doctrines by considering the different relational frames entailed. Nine families of doctrines are finally established as possible categories. The relational frames which give rise to those families are: a) Hierarchical, b) Temporal and c) Sameness/Difference in the Self-as-context Hierarchical Frame. This paper examines how these frames are applied to life discrimination and finally, in which way Zen and Behavior Analysis are themselves instances of two different specific families of doctrines.
Key words: Derived relational responding, life/death discrimination, ontological doctrines, Zen.

Zen and Behavior Analysis seem to have little or no relation. Zen is an Eastern philosophy, and Behavior Analysis, or more precisely Radical Behaviorism (or Functional Contextualism), a Western one. Zen is some kind of mystic practice, and Behavior Analysis a scientific discipline engaged in the study of behavior by means of an organized set of operations regarding a complete research program. Nevertheless both disciplines have been conceptually linked on several occasions, almost always by matching some Buddhist exercises to behavior modification and therapy techniques (see monograph number on *Behavioral and Cognitive Practice*, 2002, 9; De Silva, 1985; Groves & Farmer, 1994; Linehan, 1993; Marlatt & Kristeller, 1999; Marlatt & Marques, 1977; Mikulas, 1978, 1981; Shapiro, 1978; Shapiro & Zifferblatt, 1976).

However, despite the relevance of these techniques in applied clinical settings, on our view this is only a partial crossover between disciplines. In addition all of the studies cited in the previous paragraph lack a necessary distinction between Buddhist trends and their fundamental ontological assumptions (see Kishomoto, 1954 and Monier, 1890, for full discussion). Thus this paper will solely focus on Zen, or more specifically on Ch'an. The aim will be to establish a radical and definitive link between these two traditions (Zen and Behavior Analysis). A set of isolated and disconnected characteristics of each tradition will not be described, instead the proposal will be to uncover the ontological

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structure of Zen and Behavior Analysis. Only then will we be able to place them in their appropriate ontological categories. To accomplish this we need to examine the compounding parameters which we will call "ontological structures", or "life doctrines".

Zen can be fundamentally approached in four ways: a) Zen per se as a human experience; b) Zen practice as a collection of verbal exercises and techniques; c) Explanation of Zen practice; and d) Explanation of the explanations of Zen practice. We are going to distribute these points in the following manner.

A preliminary step will be to briefly define Zen in accordance with some informative texts, which will lead us to point b). We will then asses the main conceptual and non-therapeutic approaches to the question exclusively from a behavioral perspective, in order to asses their aptness. This will be a partial fulfillment of point d), to the extent that only behavioral papers will be mentioned. We state this restriction because we consider that Radical Behaviorism (and by extension Functional Contextualism) is the best way to describe the topic, despite the inconveniences of traditional behavioral approaches. The following step will be to present an outline of Relational Frame Theory (RFT) as a particular behavioral explanation that can account for Zen better than any other. In particular RFT will let us properly examine the parameters that provide structure to the different manners of constructing a "life doctrine" and allow us to establish a closed classification of 9 streams or families of life doctrines. To this end, RFT, or more specifically, the relational frames involved in the classification will need an event upon which the classification of doctrines can be elaborated. This event must serve as a basis upon which the verbal elaboration obtained by suitably relational framings can lead to a "life doctrine". So the basis of the concept "life" will be treated as an indispensable step in the inquiry about the authentic relationship attaching Behavior Analysis and Zen. RFT will be reintroduced in the last part of the paper in relation to nirvana, the target of Zen. This RFT exposition will account for point c). Finally, point a) will be treated in a section in which an *emic* perspective (specifically the author's perspective and some Chan masters' sayings) on nirvana is examined. This section will be elaborated just before the section that explains it from the RFT perspective.

Definition of Zen

Nowadays, Zen is assigned an air of mystery, and sometimes even special, magic or spiritual properties that it really does not posses. This is the main general misunderstanding about Zen that we intend to clarify.

Because of this a systematic exposition of Zen as a philosophy will not be made. This paper is not concerned with making or repeating a description of Zen properties in the way western culture has characterized it (see Wong Kiew Kit, 1998). Nor does this paper aim to trace the historical development of Zen schools. This is an undertaking better achieved by Nukariya (1913) and Hu Shih (1953). Instead our focus will be the analysis of a specific experience into which Zen practice flows ("experience" composes of "ex-," "-peri," "-entis," i.e. the "things outside enveloping"). Such experience concerns the nature of life and reality and it is expounded in another section. What we provide in this section is a definition of Zen as it is often presented.

The most common definition of Zen consists of considering it as a type of meditation (Antolín-Rato & Embid, 1974), made up of habits and exercises, such as "koans" (usually in the form of verbal paradoxes), respiration techniques, rituals (e.g. meditation postures or "zazen"), "mantras" or word repetitions, "gathas" or prayers, etc. (Suzuki, 1935). At any rate, the Japanese term "Zen" is derived from the Chinese "Ch'an", this one in turn from the Sanskrit "dhyana" and this finally from "jhana" (Monier, 1920), and its meaning is "vehicle" or "pathway". This definition brings together a minimum consensus about Zen. Beyond this simple identification of Zen with meditation, a wide range of confusing ideas emerge, because the Zen experience itself is associated either with different abstract concepts (liberation, happiness, inner or supreme knowledge, etc.), or with a "non-conceptual" concept (Zen as something that cannot be communicable, but that, even so, is a word applied in some context and in accordance with a given "language game" [see Wittgenstein, 1953], which consequently and paradoxically turns it into a concept). We suggest that the emic expositions of Zen that we elaborate later on, as well as the etic conceptualization of it from RFT make both kinds of definitions unnecessary.

Main Conceptual Approaches to the Behaviorism-Zen Relation

Previous behavioral treatments of the Behaviorism-Zen relation have usually focused on several concerns that can be summarized in four topics.

Mysticism

One of these topics is to account for the mystic element either by defining it (and Zen) from a behaviorist standpoint, or by directly connecting it to Behaviorism. The reason why mysticism is studied in traditional behavioral treatments is because these treatments conceive Zen as an example of mysticism. Williams (1986) defined mysticism as a state of mind in which one realizes that there is no such thing as a conceptual understanding of the world, and, consequently, only events or phenomena which are neither well described or controlled by verbal behavior may be called mystical (we will specifically examine the role of language later on).

Hayes (1993, 1997) distinguished among "one and two universe systems" in an effort to differentiate between mysticism and science. According to Hayes, in the one universe system of Zen there is no place for separation between the knower and the thing known, because the universe is viewed as an inseparable whole. On the contrary, in a two universes system, the knower and the thing known are understood as two separate universes. Hayes's point of view is based on a sacred Hindu text, "Avatamsakra Sutra".

However, we believe that both Williams and Hayes fail to differentiate Buddhist trends. The fact is that the Hindu pantheon cannot be matched to Zen practices or goals or to Bon mythology (although most Bon superstitions are incorporated into the Theravada Buddhism which is widely practiced in Tibet). Each mystic tradition has its own "conceptual" view of the world, as acknowledged and described by James

(1902). Besides, Hayes (1993, 1997) introduces an error in her classification through her epistemological metaphor of "two universes". The word "universes" is not used in the same way as physics employs it. This mistake drives the author to confuse the concept of "reality" with the concept of "truth", and in turn Ontology (the branch of metaphysics which deals with being in general and its transcendental properties; Merrian Webster, 2003 and RAE, 2001) with Gnoseology (the discipline that accounts for the theories about how human beings develop scientific knowledge) (see Barnes & Roche, 1994; Barnes-Holmes, 2000).

In addition, Hayes does not consider other Hindu or Buddhist texts like Rig Veda, Yagur Veda, Ashtavakra Gita, Bhagavad Gita, Vimalakirti Sutra, or Lankavatara Sutra. This omission limits her attempt to establish a well-grounded frame for some hypothetical "Oriental or Asiatic mysticism". The concept "mysticism" employed by these authors is very vague. They do not specify what kind of "mysticism" they are speaking of. We must bear in mind that "mysticism" is defined as: 1) the state of those who are extremely dedicated to God or mysticism; 2) the extraordinary state of religious perfection consisting of some kind of ineffable union of God and soul through love accompanied by revelations and ecstasy; and 3) religious and philosophical doctrine teaching the direct communication of man to divinity during intuitive visions or ecstasy (see RAE, 2001). Martín Santos (1995) also sums up the traditional three ways or stages in mysticism: i) The Purgative Way, or sins and passions liberated by the soul; ii) the Illuminative Way, or the souls' illumination by the eternal good derived from the knowledge of Christ's passion and redemption; and iii) the Union Way, or "spiritual marriage" with God. We can see that the definitions of "mysticism" and Zen have very few points in common.

Regarding the connection between mysticism and science, there is no uniform proposal. Williams (1986) says that scientists and philosophers of science are describing the world in ways that are strikingly similar to descriptions of the so called 'mystical world' -those from Eastern schools such as Zen, Taoism and Hinduism. In contrast, Hayes's (1993, 1997) metaphor of "two universes" considers that mysticism and science are two opposing ways of understanding the world. There is no consensus between the two. Watts's (1996) states that the target in Zen is to synthesize both kingdoms of the "dharma", multiplicity or "ri" in Japanese, and oneness or "ji", and the way to do this is though a third kingdom or "ri ji muge", which means "no hindrance" between the ultimate unity of the world and its multiple particularities.

Language

A second topic is the analysis of the implications of language in Zen. Unanimously, language is treated as a barrier to the achievement of illumination (satori or nirvana) (Bass, 2010; Diller & Lattal, 2008; Hayes, 1997; Williams, 1977). Clearly, we can only talk about Zen and illumination in human beings, i.e. in verbal organisms. To talk about other animals as enlightened creatures makes no sense. We are not saying that Zen is a new conceptual scheme of life (see *emic* section later on), nor that Zen is exclusively based upon the absence of language. What we propose is that Zen tries to annihilate that which keeps us symbolically attached to the discriminations involved in "life".

The focus is not language itself, but the fundamental relational abstractions regarding human life, and these relational abstractions are those related to "life" and "death". We will try to demonstrate that Zen is based upon (or leads to) the absence of "everything" and "nothingness" and this is only possible when one is dead. But how can anyone reach this state in life? This is only possible symbolically. Although Lao Tse cannot be considered a Zen master, he is usually referred to as one of its forefathers. Speaking about the Tao he wrote: "Ever desireless, one can see the mystery. Ever desiring, one sees the manifestations. These two spring from the same source but differ in name; this appears as darkness. Darkness within darkness. The gate to all mystery."

Why then is this topic so pervasive in literature? We think the pervasiveness of this topic is because language or verbal behavior is matched to mentalist and spiritualistic theories. But according to Wittgenstein (1953) there are many language games. He used a pragmatist game to dismantle dualist language games. Besides, the language game of the word "to know" is confusing when it is associated with "language" and "Zen". Ryle (1959) distinguished between "knowing that" and "knowing how". In other words, living beings "know how" when they simply behave in accordance with their respective conditions and contingencies of reinforcement. But additionally verbal living beings can "know that", i.e., they can establish complex arbitrary relations (language), that let the organism behave in new ways (Skinner, 1957; Hayes & Hayes, 1992). This distinction is not taken into account by the authors mentioned at the start of this section.

In addition, some authors in fact propose that Zen tries to undermine and let go of language (Bass, 2010; Hayes, 1997) through some thought control strategies like "saying no", "walking one's attention back", etc (Bass, 2010). We think this is a dangerous mistake, because it goes against the recent advances in clinical behavior analysis (see monograph number on *Behavioral and Cognitive Practice*, 2002, 9) as well as to the ancient Zen teaching of feeling the flow of experience (Watts, 1996). In contrast we propose that *Koans* (unsolvable verbal meditative themes) employed in Zen practice are intended to break spiritualistic conceptions of Zen. We must not forget that Zen is a specific branch of Buddhism, and thus it is quite likely that Zen followers initially intend to find a set of transcendental beliefs parallel to those present in other branches of Buddhism.

Zen Outcome (Nirvana)

Obviously "satori" or "nirvana", i.e. the goal of Zen practice, cannot be left without discussion. Some authors establish that once language is removed (this sounds like if you wanted to not know the result of 2x2 once you have learned it; you cannot forget it, even for a while), some kind of widespread class or interrelatedness is prompted (Bass, 2010; Hayes, 1997; Williams, 1986). However, sometimes this interrelatedness is a misconception either of the composition and organization of reality or of the effects which enlightenment has over some types of discriminations. Events are interconnected, however they form classes or perceptual categories (Reeve & Fields, 2001), otherwise the world would be indiscernible. The fact is that non-verbal organisms learn to behave discriminatively. The myth of language as the "cause" or constructor of the world is

complicated. A verbal organism can behave in more diverse and more specific ways, but language itself does not "create" reality; language allows the combination of world events in a variety of ways, and in turn the transformation of additional functions (which is not possible for non-verbal organisms), but language does not create these events nor their features. In fact, non-arbitrary features and relations are the basis for the subsequent transformation of functions across derived arbitrary relations (Dymond & Rehfeldt, 2000).

Bass (2010) for example does not explain why Zen practice leads to a "marvelous insight" (an experience which also includes frightening feelings), nor to an increasingly prevalent calm disposition which is functionally independent of changes in the stream of contingencies affecting the rest of one's repertoire. We do not understand in which way something (a calm state or any other feeling or sensation) can be independent of contingency changes (moreover when no verbal behavior is implied, following the previous paragraphs), or, at the same time, how such calmness can independently effect one's whole repertoire. This point opposes all principles of both behavior analysis and Zen. Where is the ever-changing flow of experience predicated by Zen? Where is the stream of behavior postulated by behavior analysis? Where is the impermanence of the world that is characteristic of Buddhism? Nothing can be "functionally" independent to contingencies of reinforcement, because "functional relations" are defined by the specific relations of a contingency of reinforcement.

At most Bass (2010) mentions that Zen creates a large, verbally-unmediated stimulus equivalence class whose members are merged within a single and "absolute" class (nirvana). Notwithstanding there are some issues concerning this point which need clarification: how does Zen create that stimulus class? What does "verbally-unmediated" mean? Which are the members which form part of the "absolute class"?.

Shared Issues

Finally, a fourth topic is the identification of Zen and Behavior Analysis features. Diller and Lattal (2008) conclude that both disciplines share "compassion", i.e. not to punish people for their misbehavior but rather teach them an alternative guideline of conduct. This, however, is a weak comparison, compassion in Buddhism is a consequence of the Four Noble Truths, one of which being the truth of universal suffering as a matter of fact in life. Punishment is in some way related with suffering, and it is true that behavior analysts prefer to avoid physical punishment due to the unwanted effects of direct aversive stimulation. However aversive techniques (excluding physical punishment) are also considered for behavioral management in some conditions (Martin & Pear, 2005).

A second identification is that Buddhism believes in reincarnation, and although for Radical Behaviorism death definitively brings behavior to an end, reincarnation can be thought of like the perseveration of a person's features through his or her influence on the behavior of others (Diller & Lattal, 2008). The first mistake consists again of not differentiating between trends in Buddhism. Reincarnation is literally believed in some branches of Buddhism but only metaphorically (the cycle of suffering) in others. The second mistake is that obviously the effect of my behavior on other's behavior is no

longer comparable to reincarnation because the latter involves "self" and in the former my self-discrimination cannot be transferred to others by its own definition.

Diller and Littal (2008) also say that Nirvana does not pursue the complete extinction of ontological freedom rather the epistemological achievement of "phenomenological self" as the true self. However three arguments oppose this statement: i) as we shall see, the literal etymological meaning of "nirvana" is "extinction" and the exact context in which this must be understood will be commented upon; ii) Nirvana cannot have any "epistemological" proposal because it is merely an outcome, not a means, what is more it is not a scientific construction of knowledge (as this paper clarifies); and iii) Neither a phenomenological nor an intellectual nor any other "self" can be present in Nirvana (some Buddhist scriptures talk about "Universal self" or similar ideas, which is not "self" in the normal sense of the word).

The final conclusion of Diller and Lattal (2008) is that both Buddhism and Radical Behaviorism are pragmatist philosophies and aim to improve human life. However, Buddhism again needs to take a specific value because Ch'an does not have this ethical goal. Satori or nirvana entails individual enlightenment but a specific agenda of moral behavior is not accounted for.

Therefore, none of the papers reviewed in this section gives, on our view, an appropriate answer to the Zen-Behavior Analysis relation. Only by decomposing the interconnected net of fundamental assumptions belonging to the different ontological doctrines or "systems" is it possible to establish appropriate categories and include Zen and Behavior Analysis. In this sense the "universes" metaphor coined by Hayes (1993) is substituted for the "life" concept because this allows a broader perspective about nature and a possible ontological classification without using a metaphor. An extensive and complete justification for the pertinence of this idea to Philosophy can be found in Ortega y Gasset (1957). The ontological perspective of this enterprise will be materialistic (Bueno, 1972), and contextualistic (Barnes, Roche, & Hayes, 2001).

A Contextual Approach to Verbal Behavior: A Relational Frame Account

Relational Frame Theory (RFT) is a contextual, behavioral and functional analysis of language and cognition (Barnes *et al*, 2001). It assumes that cognition is a behavioral phenomenon inextricably linked to verbal behavior, which is understood as arbitrarily applicable relational responding, i.e. derived relational behavior. This type of behavior consists of operant behavior contextually controlled for stimuli relation. Thus the organism can establish both simple and complex sets of indirect (or not directly reinforced) relations through which multiple behavioral functions can be transferred and transformed by virtue of the concrete relations formed under specific relational contextual control. Therefore, RFT can be conceptualized as a materialistic framework of cognition. Its experimental evidence is founded upon equivalence and further laboratory and applied research.

The first experiments concerning equivalence relations demonstrated that reinforcement of two relating stimuli (A1 to B1, and A2 to B2), prompted the behavior of relating such stimuli reversely (B1 to A1 and B2 to A2) without explicit reinforcement

of these two responses (Sidman, 1971; Sidman, Cresson, & Willson-Morris, 1974; Sidman & Tailby, 1982). Moreover, if relating B1 to C1 and B2 to C2 was reinforced, new relational behaviors not directly trained were observed: relating A1 to C1, A2 to C2, C1 to B1, C2 to B2, as well as C1 to A1 and C2 to A2. Stimuli that can be included in this type of arbitrary relations are textual, visual, olfactory, gustative, auditory and even interoceptive (v.g. Annet & Leslie, 1995; DeGrandpre, Bickel, & Higgins, 1992; Sidman, 1971). Another empirically relevant feature of equivalence relation behavior is contextual control (Bush, Sidman & deRose, 1989). A1, A2 and A3 will be respectively related to B1, B2 and B3, so as to C1, C2 and C3 when X cue is present, but it will be related to B2, B3 and B1, so as C3, C1 and C2, when Y cue is present. Untrained relational responses will also emerge under such contextual controls. And lastly, another fundamental feature of arbitrarily applied relational behavior consists of the fact that, once a function is trained with a few stimuli from the class, the same function will also appear with untrained stimuli. This is known as "transfer of functions" (Dougher, Auguston, Markham, Greenway, & Wulfert, 1994; Dymond & Barnes, 1994; Hayes, Kohlenberg, & Hayes, 1991).

Hayes & Hayes (1989) proposed that arbitrary equivalence relations are an instance of a more complex relational behavior. Training in equivalence relations would consist of reinforcing relational behavior under contextual control of a "coordination" cue provided by the experimental procedure. Inasmuch as arbitrary relations can be contextually controlled, Hayes & Hayes (1989) maintained that changing and making explicit a different contextual cue would also change the specific relational behavior involved. A personal history of social reinforcement from early childhood would be needed for this type of relational behavior. The fundamental condition in that history would be the reinforcement, through multiple exemplars, of two particular behaviors of great flexibility as are the manual and vocal partition and (re)composition (arbitrary applied) of objects (Luciano, Barnes-Holmes, & Barnes-Holmes, 2001). Non-human animals have learned only a limited derived relational repertoire and always experimentally taught by human trainers. Steele & Hayes (1991) demonstrated experimentally the formation of relational frames of coordination, opposition and difference in adult verbal subjects. Furthermore, several experiments have demonstrated the formation of relational frames for comparison (Whelan & Barnes-Holmes, 2004; Valdivia & Luciano, 2006) and hierarchy (Gil, 2011; Gil, Luciano, Ruiz, & Valdivia-Salas, 2012). So, this behavioral theory substitutes classic labels for equivalence relations for more appropriate nomenclature. "Symmetry" now is "mutual entailment": if a person relates A to B in a given context, then also will relate B to A, being controlled by the relational cue defining such context. "Transitivity" and "equivalence" are now "combinatorial entailment" and "combinatorial mutual entailment", respectively. If a subject responds relationally to A and B, and B and C under the contextual control of an opposition cue ("A is opposite to B, and B is opposite to C"), he will respond in accordance with the said cue for the relation between A and C, and C and A (and for their respective mutual entailments). That is to say, he will respond to A as if it were same as C, and to C as if it were same as A. "Transfer of functions" is also substituted in this case for "transformation of functions". This is because the contextual relation that controls the arbitrary net is not necessarily one of a frame of

coordination, and therefore the function acquired by one stimulus or group of stimuli may not appear with the same parameters for the other members of the class. It will depend on the relational framing of the contextual cue (Crel) as well as on the type of function (Cfunc) (Barnes-Holmes, Hayes, Dymond, & O'Hora, 2001; Hayes, 1991; Dymond & Rehfeldt, 2000).

Some basic instances of relational framing can be described: 1) hierarchical, 2) coordination (included "sameness/difference"), 3) opposition, 4) comparison, 5) conditional, 6) temporal, 7) causality, 8) spatial, 9) deictic and 10) I-Others frames (see, Hayes, Fox, Gifford, Wilson, Barnes-Holmes, & Healy, 2001; Luciano, Rodríguez, Mañas, & Ruiz, 2009). They can be grouped as follows:

a) Hierarchical, coordination, opposition, and comparison framing work on the premise that a whole can be contained within, or be related to another whole depending on a relation of balance or "weight" between them. When two stimuli are coordinated, they acquire equipotent features; in an opposition frame, partitions or stimuli are place in a relational context in which each one is the farther extreme of the other. Comparison and hierarchical framing engages a modulated order of "weight" onto the whole, although hierarchical framing also inserts a sense of belonging to a whole or subordination. For this reason it seems to be one of the most basic frames.
b) Conditional, temporal, and causal framing. The "if-then" conditional frame entails two parts of a whole in a relation of correlation or dependence not necessarily time related. Thus when we learn what an orange is, we need to establish a differentiated conditional frame (not only a coordination one) along with its form, its color, its smell, its taste… because "if" it is an orange, "then" it is orange, and it smells and tastes characteristically like an orange. "If" it was orange, but its size, its smell and taste were different, "then" it could be a tangerine. Conversely, when conditionality or correlation of parts is given strictly in an ordered chronologically we are framing temporal relations. And finally, when this succession of events is isolated from the succession by other events, and then functional relations of influence are configured, we are talking about causal framing.
c) Finally, spatial, deictic, and personal framing expand from the use of verbal discrimination in order to learn about the objects around us. For this we need to make partitions in our whole environment, only then we can put one object in relation to another in the context of their mutual proximity, by establishing frames of next to/far to, in front of/behind, inside/outside, under, up and down, on the left/right, etc. In spatial framing, the speaker's position is implicit and not included in its relation to objects, but if we explicitly include the speaker/listener positions in these relations we are establishing deictic frames such as "here/there" and "this/that". A more abstracted step would be the formation of the personal frame, in which "I" and "YOU" would be the most abstracted cues of "here/there", because they would be only related to the listener and speaker as unique places across their changes along space and time. However this is a conceptual analysis and explicit experimental support is needed for these three types of relational responding.

Research regarding RFT is abundant in basic as well as applied settings, but a review exceeds the scope of this paper. We can only offer in this section a brief account of the main RFT postulates in order to introduce a specific approach to a materialistic taxonomy of doctrines about life. In the next section, the life/death discrimination will

be the basis of that taxonomy. Life/death", "everything/nothingness", and "reality" are concepts, and thus they count having abstract relational properties. We only pretend to study these relational features and connect them to "Zen" and "nirvana", considering that the latter are also concepts with abstract relational properties, inasmuch as they are words employed inside specific language games (Wittgenstein, 1957). By means of our explanation we will make explicit that the relational properties of both "life/death" and "Zen" as well as "nirvana" are coincident. This strategy is not based on giving epistemological superiority to language over Zen, but on uncovering the relational discriminations involved in both. Sometimes Zen is said to achieve a "non-discrimination" state, but to attain that state so fundamental to human beings, we need to begin from the discriminations that are equally fundamental. These discriminations are concentrated around that of "life/death".

DERIVED RELATIONAL RESPONDING UNDERLYING THE LIFE/DEATH DISCRIMINATION

Basic Events Abstracted On the Life/Death Discrimination

It is hard to give a definitive explanation of the complete set of relations entailed by the life/death discrimination. This section is an attempt to describe the foremost underlying events involved. Evidently our interest is to search for an event interacting on a behavioral level, not on a biological or physical one. For instance Schrödinger (1944) tried to build a bridge between physics and biology in a definitive explanation of "life". He focused on the phenomenon known as "entropy". "Death" would be total or absolute entropy, and consequently life would be a process which consists of accumulating entropy in a way which can be described by a mathematical formula. We must remember that entropy is related to successive transformations of energy. Obviously this explanation is developed on a non-behavioral level of research. Schrödinger (1944) rejected "metabolism" because its etymological definition, "interchange of matter", is a less precise concept. He proposed that gases are also subjected to interchange of matter.

Schrödinger was probably right, but even so "interchange of matter" is closer to a behavioral level of analysis than "entropy". Metabolism requires a more radical behavioral principle but it is not completely useless for our purposes. A principle underlying "metabolism" in a behavioral scale of analysis could be "movement". Living beings have always been classified as autotrophic or heterotrophic according to criterion of "interchange of matter" for the transformation of some substances into others (Curtis, 1984). This type of interchange necessitates that beings move to distant goals (heterotrophic or animals) or to the next or contiguous ones (autotrophic or plants and bacteria). Thus, movement is one possible basic event underlying "general" life/death discrimination. Notwithstanding "movement" cannot be a radical event, because everything is moving and there are also mobile objects which are not accomplishing the criterion of interchange of matter to gain entropy (or metabolism), a stone rolling down a slope for example.

Hence we must specify that the target population for prompting this discrimination

must only include "self-moving" beings (including autotrophic organisms), and secondly that even inside this group of self-moving organisms, animals are not always moving (for example when they are in deep sleep). Verbal organisms need an easy event to discriminate between fellow creatures that are dead or alive, to the extent that this discrimination is posited early on in human history, before technological tools were developed enough to differentiate more precise events (e.g. vital signs). So we propose that the radical event definitively underlying life/death discrimination in humans is "breathing". Breathing involves interchange of matter and gives rise to movement and metabolism. Besides it is an event in our range of framing events prompted without the employment of further technological resources. Indeed, "breathing" is implied in the main concepts and relational nets regarding "life principle".

We demonstrate our point with some of the "life principles" which attest to the relevance of "breath" in this regard. The Sanskrit "atman", the Chinese "qi" (by extension the Japanese "ki"), the Hebraic "nephesh" and "ruah", the Greek "psyche", the Latin "spiritus", the Spanish "alma" (by extension the French "âme") and the English "soul" are some of them. "Atman" is employed as equivalent to soul, and in the *Rig Veda* its use means "breath", "life breath" or "life principle", and it is even applied to "Vāta", the god of wind (Tola & Dragonetti, 2008). "Atman" is "attan" in Pali, and later on derives to the Greek "atmos" and this, in turn to the English "steam" (Rhys Davids & Stede, 1921). For its part "qi" (or "ki") is usually translated as "life energy", but its radical etymological meaning is also "breath", and it is featured as a double rhythm of inspiration and expiration, by extension it is applied to condensation at birth and to dissolution at death (Cheng, 1997). "Nephesh" and "ruah" are both employed in the Holy Bible as synonyms of soul and spirit, and they also literally mean "breath" (Roberts & Pastor, 1996). These authors also inform us that "psyche" comes from the second meaning of the Indo-European lexical root "bhes-", i.e. "to respire" or to "blow", and from which "soul" could derive as an adaptation through the Old High Germanic term "sêula" or "sailian". However the etymology of "soul" is not completely clear, it could also come from "sail" or "sea", and also from the Greek "zoon", which means "life" because the lexical root "zoe" means "air" ("oxygen", "ozone").

"Alma", and therefore "âme", comes from the Latin "anima" ("animal" is a derivative too), from the Greek "anemos" (origin of "pneumonia" as well), and from the Indo-European "anð-", "to respire" (Picoche, 2005; Roberts & Pastor, 1996). Finally, "spiritus" shares its etymological origin with "re-spiration" as with "in-spiration" and "ex-spiration", but what do "respiration" and "spiritus" share? Their common element is the root "sper-", which means "seed", but also "to turn" or "wind" (Pokorny, 1959). Hence "in-spiration" is air "turning inside", "ex-spiration" is air "turning outside", "re-spiration" is air "turning once and again" and "spiritus" is the circle of the air in itself. Bear in mind that "seeds" in Nature are transported by air, and that only by air could the "vital seed" be introduced into the human body through inspiration. Indeed Fernández Marcos (1975) describes the diverse ancient practices of the first Christians who utilized a "magic blow" upon the mouth of people affected with "devil" illnesses, as if this blow was a recovering "pneuma". But "air" or "breathing" are only simple events; can they work for the establishment of more complex discriminations like those

involved in the life/death discrimination? The next section examines how more complex relational frames transform these events into ontological principles.

Complex Relational Frames In The Life/Death Discrimination

The radical event consisting of breathing air is obviously in a frame of coordination to "live organisms" and in a frame of opposition to "dead organisms" as well as to the respective features of each one. Verbal community, however, further completes this elemental life/death verbal discrimination by employing some of the possible instances of relational framing. This is because life/death discrimination sets forth a net of additional relational questions to a verbal organism. These questions are: 1) I am alive (that is, I am) while I breathe, so, what will become of "me" or "my self" after death (definitive cessation of breathing)? (By extension we also wonder about "our self" before our birth, the beginning of breathing); 2) what kind of "I" am I during my life, i.e. while I breathe, and what kind of "I" will I be after I definitively stop breathing? Am I only my body or is my "I" something qualitatively different?; and 3) perhaps a more elaborate question about whether whatever happens after life is still to come or has it come already in some way? (We have experiences of repetition during life: day/night, the cycle of seasons, etc. It seems that we transfer them to the afterlife too).

For Hayes (1984) and Barnes-Holmes, Hayes, & Greeg (2001) "transcendence" is a relational abstraction produced when personal "I", temporal "NOW-THEN" and deictic "HERE-THERE" frames are combined, and "I-HERE-NOW" is framed as "I-THERE-THEN" ("THERE-THEN" being equivalent to death). They maintain that "spirituality" is a result of the distinction between self-as-content and self-as-context (soul and even God would be matched in some way to the features of the abstraction labeled "self-as-context"). Undoubtedly these are two appropriate analyses but the three questions mentioned above combine to give rise to a diversity of accounts for the role of human beings in nature. These questions (and consequently their answers) are explored by employing a more elaborate combination of relational frames than those proposed by these authors.

The three fundamental relational framing instances implicated by these questions would be: a) HIERARCHICAL framing, inasmuch as when we wonder what will become of us after life, we are really asking if there is something more after life, and then whether the world in which we are present and alive (let's call it "everything") has continuity, or on the contrary, there is nothing more and we assume that "everything" and "nothingness" (in which we are not present nor do we exist) as parts or moments of a same totality; b) SAMENESS/DIFFERENCE framing, because answering the second question matches ourselves to our body as the only material in which our life can exist, or differentiates (at least) between body or material substance, and soul or spiritual (or equivalent) substance. Thus, self-as-context as a derived relational abstraction can provide sensations of permanence, invariability and expansiveness as pointed out by Hayes (1984). But this is not sufficient to believe we "have" a soul in addition to a body, in fact, self-as-context can be transformed into the container of these two different substances, or not. What this self-as-context abstraction and its

associated behavioral by-products achieve is a hypostatization of an agent as the apparent cause of our actions. This illusion results from the generalization of self- descriptions across changing contingencies. A different matter is the nature assigned to this agent. Nonetheless it is true that this sameness/difference framing of substances is very close to self-as-context because "I" is the underlying HIERARCHICAL frame supporting the sameness/difference one. And, c) TEMPORAL framing, which, although it is present in a transversal way, plays a distinctive role. Obviously we are HERE and NOW when talking and thinking about death, an event that we frame THERE and THEN. But there are two ways of considering death as THERE and THEN: a) in a frame of difference (or even opposition), and thus distant, to our uttering of HERE and NOW; and b) in a frame of coordination to our uttering HERE and NOW, i.e. as a THERE and THEN already happened.

These would be the frames that transform "breathing" into an ontological principle (soul) and that therefore underlie any conceptions about life and our role inside it. Transcendence, spirituality and similar concepts are necessarily abstracted by means of them. Now a taxonomy of these conceptions or doctrines is developed as a initial step toward demythologizing Zen, as well as for the comparison between Zen and Radical Behaviorism.

Classification of Life/Death Doctrines

For this question the previous analysis of the verbal framing of events is very important. The analysis of the verbal relationships involved in the life/death discrimination determines that there are three relevant verbal frames entailed in ontological doctrines. Each frame can take two values. And an additional undefined framing is also involved (see Figure 1). These values conjugate to produce nine life/death families or underlying

Life hierarchical (everything-nothingness)	Temporal frame / Self-as-context	Not yet (Unidirectional)	Yet (Circular)
More after life (*everything-no nothingness*)	Same (matter)	1. *Unidirectional self-trascendental materialism.*	2. *Circular self-trascendental materialism.*
	Different (matter and spirit)	3. *Unidirectional self-trascendental spiritualism.*	4. *Circular self-trascendental spiritualism.*
No more after life (*everything-nothingness*)	Same (matter)	5. *Unidirectional non-self-trascendental materialism.*	6. *Circular non-self-trascendental materialism.*
	Different (matter and spirit)	7. *Unidirectional non-self-trascendental spiritualism.*	8. *Circular non-self-trascendental spiritualism.*
Do not know (do not acknowledge)		9. *Agnosticism.*	

Figure 1. Classification of life/death doctrines.

doctrinal branches. All of the families enumerated have their own development, some are more developed or saturated than others by specific doctrines, and some of them participate in others or evolve toward others. However to explain these processes and the whole ascription of all doctrines developed along the history of mythology, religion and philosophy is a matter beyond the scope of the present paper. Our task will be limited to establishing an exhaustive classification and the addition of clarifying examples. A definition of different compounding parameters which give rise to the families of doctrines about life is provided in the following section.

Definition of Parameters In Life/Death Doctrines

The temporal frame can take two values, either "unidirectional" or "circular". We speak of "unidirectional" when time is conceived of as going from one point (NOW) to another (THEN) in a linear fashion. When time is conceived as being in the "NOW" from the speaker's perspective, when the "THEN" has yet to happen, i.e. modified by an additional frame of coordination, we speak of time as being "circular". Likewise circular time can be understood either as a single closed circumference, or as a recursive and repetitive curve (like a ringlet).

The hierarchical everything-nothingness frame can also take two different values, self-transcendental or non-self-transcendental: the former when death does not end life (nothingness is rejected because there is always something after life); and the latter when death is the cessation of life, meaning life consists of "everything" and "nothingness".

Finally, regarding the substances frame, "materialism-spiritualism" would be the two values which refer to the doctrine which supports the idea that life, and in particular human life, consists of "matter" subjected to natural laws, or contrarily, that it consists of two or more elements or substances, one of which is not subjected to the same natural laws as the other and is instead ruled by special principles, whatever they may be.

Families of Life/Death Doctrines

Here the above parameters are used to create a summary of the present theories of life/death doctrines as seen in Figure 1. This classification is very close to that of the "eight values of general materialism" and the "six values of special materialism" developed by Bueno (1972), as well as the "six theories of person" established by the same author (Bueno, 1996). However these taxonomies are not the same. In the first case Bueno handles the combination of the three concepts of materiality corresponding to nature (M1), subject (M2) and ideas about reality (M3), either with respect to the operant subject, or with respect to a materialist or spiritualist conception of those genres. In the second case, he manages four different criteria (human or non-human people, pairing a person to a human being or not, historic-evolutionary or a-historic conception of person, and attributive vs. distributive relation of individual people to the compound of all people).

The present theory specifically develops the different ontological possibilities of the operant subject (M2). The theory combines the double value of time (unidirectional/

circular) with the sameness/difference compositional facet of the human operant subject (materialism/spiritualism) as well as with self-transcendence/non-self-transcendence of the said subject. Therefore the development of this schema gives rise to the following nine families of doctrines:

1. *Unidirectional self-transcendental materialism*. This combination proposes that there is something more after life that consists of the same substance as life, but has not yet happened. This combined framing includes the doctrine of "dead man's resurrection". Resurrection entails the frame of "everything" without "nothingness", i.e. of transcendence or continuity. The material of life is deemed equivalent to flesh and blood, and consequently this doctrine employs a unidirectional temporal frame given that the resurrection process has yet to come. Sometimes this is considered to be a false materialism or a masked spiritualism, as even the most resolute defenders of spiritualism are often prone to materialism (Bueno, 1972). However, the doctrine would perhaps be better labeled as "strong transcendental" rather than "strong spiritualistic".
2. *Circular self- transcendental materialism*. This doctrine supports the idea that there is something more after life, which is the same substance as during life, and has happened before. In this combined framing, the "Eternal Return" doctrine developed by Nietzsche (1884, 1888) is the prime exponent. For this doctrine, death brings individual life to an end but at the end of universal time, all existence is repeated in the same way. Thus, it is framed in a context of "everything" with no "nothingness" (because repetition removes the concept of "nothingness" or death). It centers on the idea that all beings that have existed as well as all events have already happened in the same way as they had happened before or are happening now. The temporal framing is of "now" and "has happened already" because the universe has ended, but is being infinitely repeated.
3. *Unidirectional self-transcendental spiritualism*. There is something more after life, its substance is different from that of life, and it has not happened yet. This doctrine is shared by several conceptions defending soul or spirit as the real transcendental nature of human beings. Dualism (e.g. Descartes) is a clear instance of this doctrine, but we can also see its development in "transcendental idealism" (e.g. Kant) or its subsequent gnoseological transformation by Leibniz.
4. *Circular self-transcendental spiritualism*. This doctrine proposes that there is something more after life of a different substance from that of life, and it has happened before. The clearest instance of this spiritualism is perhaps the "transmigration of souls" or "vulgar reincarnation", i.e. the belief that the soul is eternally migrating from one body to another. The idea is well communicated by those people who believe that they were a "warrior", a "princess" or something similar (almost always a preeminent person) in a previous life. We propose that its content is different to the matter of life because it is based upon "soul" as an element apart from the physical body, even if such a "soul" requires a body. It is not simple dualism because it entails "repetition" or "reincarnation". The Theravada belief in the reincarnation of one Lama into another one is also an example.
5. *Unidirectional non-self-transcendental materialism*. For this doctrine, there is nothing more after life, and consequently, there is both everything and nothingness. In contrast to the next doctrine, it develops its analysis inside the concept "life". Indeed it is posed as a self-reflective analysis, prompting Self, Present and Life as the only issues of true consideration. Self cannot exist after life and as such the need to consider the nature of self after death is avoided. Death is always a distant frontier, it is contingent but

has yet to happen. Phenomenology and existentialism are two examples of this family. Some authors will take the concept of "intentionality" or "intentional conscience" as the ultimate element in which human beings must remain for the search for the meaning of life (e.g. Husserl). Heiddeger (1927) proposed "to be there" as a core concept. Regarding death, Sartre (1943, pp. 542-545) defended the idea that "Waiting for death would be self-destructive, for it would be the negation of all waiting. My project toward a particular death is comprehensible (suicide, martyrdom, heroism) but not the project toward my death as the undetermined possibility of no longer realizing a presence in the world (…). Thus, death can not be my peculiar possibility; it can not even be one of my possibilities. Thus death is in no way an ontological structure of my being, at least not in so far as my being is for itself (…)". This is perhaps the clearest rejection of death inside this family of doctrines. The risk of some of the instances of this type of life/death doctrine is that they does not address death in a circular way, and as such they evolve into *unidirectional non-transcendental spiritualism* (or idealism), as we will see, or they simply continue to avoid the implications of death regarding their own materiality. The other possibility consists of taking an etic perspective, and not an emic one as phenomenology and existentialism do. This etic perspective is usually adopted by science, and particularly in philosophy by ontological materialism (we consider functional contextualism an instance of the latter). We must briefly distinguish between *emic* and *etic* perspectives for the purpose of the study of human affairs. This dichotomy was established by Kenneth Pike and has been fruitfully applied to anthropology by Marvin Harris in his "Cultural Materialism" and to philosophy by Gustavo Bueno in his "Philosophical or Ontological Materialism". In summary, the *emic* perspective can be defined in behavioral terms as the verbal content related to an experience as it is lived by the subject (e.g. description of its own discriminative and emotional responses as well as thoughts), depending on how some specific conditions affect him/her. The *emic* perspective can include explanations from the actor's perspective consisting of the elements that he/she has access to at that moment, or of false theoretical elaborations about hypothetical causal variables. The *etic* perspective can be defined as the verbal content derived from an analysis of the context and conditions that experience depends upon and the way in which that influence are actually produced. That is, *emic* points to a topographic description of behavior, and *etic* points to a functional analysis of it. In the first section of this paper we declared that our behavior-analytic approach is an *etic* perspective focused on contingencies, behavior and their verbal products. Both science and philosophical materialism can adopt an *etic* perspective because they employ a set of structured operations and language games (in Wittgenstein's words) that are able to resolve the radical or essential relations between events and other language games.

6. *Circular non-self-transcendental materialism*. This is the doctrine of Zen. There is not something more after life, there is only matter in life, and death has yet to happen. Here we will only add that Lucrecio also defended a similar doctrine: "Since death forestalls this, and prevents the being of him, on whom these misfortunes might crowd, we may know that we have naught to fear in death, and that he who is no more cannot be wretched, and that it were no whit different if he had never at any time been born, when once immortal death had stolen away mortal life". Lao Tse's Taoism is another example of this doctrine.
7. *Unidirectional non-self-transcendental spiritualism*. "Idealism" is an example of this doctrine, although "idealism" can easily evolve into "unidirectional transcendental spiritualism" (see above). There is not something after life, and it has not yet happened,

but during life, there are two differentiated components concerning the second part or "genre" (in Bueno's terms) of materiality (this part is related to the psychological or subjective sphere, i.e. the operant subject). Both components are governed by their own distinct laws, although, of course, in death both are annihilated. Spinoza's system can be conceptualized inside this kind of "unidirectional non-transcendental spiritualism" to the extent that soul and body would be different partitions or pieces belonging to the same universal totality, and individual or personal soul is annihilated at death because it fuses with the whole (*Deus sive Natura*).

Also an "incoherent" or "crystallized" unidirectional non-transcendental spiritualism can be described, for instance when modern cognitive or subjective psychology talks about "mind", "cognition", "cognitive processing", "conscience", "self", etc. These are not concepts which oppose mythological beliefs that support transcendental spiritualistic principles. Rather they support consolidated transcendental spiritualistic beliefs and oppose previous materialistic principles.

8. *Circular non-self-transcendental spiritualism*. According to this doctrine, there is nothing more after life, death has yet happened and the human being comprises of at least two different components, although the spiritual one is annihilated in some way after life. Describing an example is difficult, but "Jainism" seems to be part of this category. In this religion "jiva" is equivalent to soul (the spiritual component in humans), the "jiva" is subjected to a cycle of reincarnation until achieving "moksha" or liberation (death has already happened), by means of which the "jiva" can finally rest due to its fusion with "ajiva" (or no-soul), the common energy flowing though all existence. This process results in the disappearance of the individual "jiva" and individual conscience (Monier, 1890; Tola & Dragonetti, 2008).

9. *Agnosticism*. This creed entails an undefined "everything-nothingness" frame, i.e. the agnostic doubts about the existence of something more after life, which consequently suspend the same/different substances frame and then the temporal frame. However, perhaps this is a hypocritical situation, because an agnostic does not really deny existence or non-existence after life, and seems to be indecisive. An agnostic employs a masking strategy to hide a belief of something more after life, and avoids any description because this person knows that whatever compromise they make to a transcendental option is problematic in a society in which science is a social institution. This is the reason why Huxley called the agnostic the "shamed believer". In fact it is quite common to find agnostic people saying that they do not know "what" happens after life, which implicitly assumes that there is something more.

These are all the possible families of life/death doctrines. The next section focuses on Zen as perhaps the best example inside the specific family of "circular non-self-transcendental materialism". The main goal shall be to explain why Zen is a doctrine of this family and to demythologize it.

Zen and Circular Non-Self-Transcendental Materialism: The Origin of a Word

In this section we are going to analyze two relational nets involved in the word "Zen". One net is the direct Zen etymology, and the other one is the mythology of Diana, because the word "diana" is deeply implicated in Zen etymology. We must remember

that according to our description, Zen belongs to Non-Self-Transcendental Materialism, and this implies that there is nothing more after life, there is only matter during life, and death has already happened. Let us examine the way in which the origin of the word "Zen" covers the implications of this specific ontological doctrine.

Etymology of Dhyana and Nirvana

Etymologies are important because they provide us with the original language games of a word, and therefore, the original context, uses and symbolic relations entailed in the word. The word "Zen" is derived from "dhyana". The Spanish etymology of the word "diana" means both "centre" and "bullseye", which is probably related to the notion of moving something to the right place or position, rather than to the specific practice of sitting down. Perhaps it even means something much more specific. It is needless to say that "Zen" does not mean "spirit", "aura", etc., which restricts its meaning to something like *going to the fundamental, the root*. The word "dhyana" is composed of two parts, the prefix "dhy-" and the word "yana". The etymology of the word "yana" is the Pali word "jhana" (Rhys Davids & Stede, 1921) and literally means "vehicle", "path" or "way", as in Maha-yana or Hina-yana (Watts, 1957), or words like "vijhana" (ear perforation), "palibujhana" (obstruction) and "pancakajjhana" (meditation systems of 4 or 5 steps, and also a crossroads). The prefix "dhy" is related to "dius" or "dium" (Dumézil, 1974), which is connected to "day" (and to the Spanish "día" and "dios", i.e. "god", as well as to the Greek "Zeus", "Dyaus"), and thus, to the sky and brightness. In fact its Proto Indo-European root is "dhu-" and means "to shine brightly", but also "to faint", "to die", and "to dissipate like dust" (Pokorny, 1959). Therefore, "dhyana" could, in summary, mean vehicle or path to light or illumination, inasmuch as this awaking would lead to the fundamental, i.e. to the path of death, of dissipation, which could be, after all, illumination itself. Indeed specific literature usually defines "dhyana" as meditation, thought or religious contemplation. Moreover, in original Hindu terms like "pra-*dhyana*-dhvamsa" meditation is directed to achieve annihilation, destruction or non-existence (the lexical root "-dhvamsa" refers both to destruction and the passing of time).

But does "nirvana" perhaps mean something like "pleasure", "happiness" or "truth"? It does not. "Nirvana" brings us to the same starting point as "dhyana". "Nirvana" actually means "extinction", "to get cold" and "to switch off" (Monier, 1921), the same as "dhu", the Proto Indo European prefix in "dhyana". It is composed of the negative particle "nir-" and "-vana," whose proto-Indo European root is "we-", which means "blowing" (Roberts & Pastor, 1996). Therefore "nirvana" literally means "no blowing or breathing", which is the equivalent of "death".

Mythology of Diana

Curiously "dhyana" has the same lexical root as the name "Diana". The historic and mythological origin of the name "Diana" in fact contains certain common relations with Zen ("Dhyana"):

1. Diana is the name that the Romans gave to the goddess of hunting. She was matched to the Greek goddess Artemis. Philosophy was concerned about the value of hunting. Obviously, hunting and the life/death question have an undoubted shared relation. The fundamental human truth for Jenofonte could only be extracted from the secrets of hunting, an idea that was also shared by Plato in his *Laws* (Jaeger, 1945). These secrets were the only ones that could bring a man to the knowledge of "areté" or "virtue", i.e. the "actual truth" for human beings. Specifically Jenofonte said that words of sophists were banal and without solid content, and that hunting, on the contrary (hunting involves killing another animal by wounding it in a vital centre or point, and hence hit the target, bullseye or "diana" if we translate it into Spanish), makes men vigorous, sharpens their eyes and ears, and prevents them from premature aging. Hunting is the best school for warfare, it teaches one to scorn base pleasures, and teaches self-control and the virtue of justice, through the discipline, fatigue and effort experienced in the loneliness of paths and forests. According to these philosophers, only through this way of life could man find the "truth".
2. In Greek mythology we find that Artemis (Diana) was Apollo's sister. Both deities were engendered by Zeus (Dyaus) and Leto. Artemis was born in Ortigia before Apollo. And according to Graves (1955), Artemis helped his mother to give birth to Apollo in Delos. The *Homeric Hymn to Apollo* says that nobody can be born nor die in Delos because of this (see Furley & Maarten, 2001). Accordingly, those who were going to die and those women who were going to give birth were transported to Ortigia, Artemis's island. This is a very important piece of information as it directly connects Diana or Artemis to: a) the role of midwives (who have always been related to the acquisition of knowledge); and much more importantly, b) to the human reality of life and death, whereas Apollo is only related to life.
3. Conti (1988) points out another of Diana's fundamental features as an Asian Goddess that has an interesting relationship with Zen. Firstly, if Apollo was the sun god then Diana was the moon goddess (moon is also the symbol for "satori" in Zen; see Hoffmann, 1986). She was consequently the guardian of ports, roads and hunters (as we have seen) during the darkness of night. Because of this function of night guardian, as well as her functions as midwife, she was also known as "Lucifera" (a classical example of a deity related to the enlightenment of knowledge in Christian religious tradition, for which the simple knowledge about life and death represented by Lucifer is that of Evil, but also a means of liberation from God`s slavery; see Cousté, 1978). The fact that Diana was the protector of *roads* and *ports* during nighttime is an amazing coincidence with the other meaning of the Pali root "jhana" or "-yana", insofar as it means *vehicle* or *way* that goes from the obscurity of ignorance to the light of knowledge (nirvana). Metaphorically "illumination" could have acquired the meaning of the light of knowledge about our nature (our birth-death reality). But the literal illumination of roads by the moon for hunting during the darkness of night is present in its meaning before this (see Rudra's etymology below).
4. Conti (1988) also points to a fourth characteristic of Zen contained in Diana's myth: the loneliness and disconnection from daily life as a means for seeing with clarity and reaching an understanding, knowledge or "arete". The author says that Diana chose to live apart from men, and asked for her father, Jupiter (i.e. Zeus), to conserve her virginity and to let her live alone in the woods and forests, and bear arms to protect herself.
5. Finally, the etymology of "Artemis", according to Hard (1989), is derived from "aer"-"temis", which means "air cutter". Aquilino and Marchi (1819) also provide the same etymological meaning, although they also add that Artemis is related to "artia" or "full

> moon", and to "artemes" or "health". In any case, all have clear resonances of the same underlying subject: life and death. "Artemis" is *air cutter* due to her role as a hunter (who consequently rides horses and fires arrows). Less likely is a possible direct relation to the representation of death as a harvester as this is a medieval symbol. She is the *full moon* because this is the symbol of completeness, fertility and the femininity in ancient mythologies and, due to its relation to the implications of "dhyana," she is also the symbol of vehicle and illumination. And she is *artemes*, which perhaps is the closest meaning related to Zen, because *artemes* means "health," and health is the key to life and death.

However a question arises regarding whether such a relation between a goddess from Asia Minor and a practice originated in India is possible. The answer is that she does not come from Asia Minor, but from South Asia. Eliade (1976) asserts that Artemis was known by many names because her ancient Asiatic provenance (the first data about her cult is dated around VII b.C.) included Cibeles in Frigia and Ma in Capadocia. In these traditions this goddess is always represented accompanied by lions, as Lucrecio also describes. Indeed Lucrecio describes Artemis as living a savage life, knowledgeable about fertility and motherhood but not sex or marriage, and always appearing as a mixture of contradictions. This representation draws parallels with Zen's states of non-discrimination and non-dualism.

Likewise Ephesian or Triple Artemis (i.e. Hecate) was linked to Anahita, the Persian Goddess of warfare, health, fertility, sage and purity. The former's priests were known as "megabyzus" in Caria (North Turkey). These priests were eunuchs under the service of Anahita in the Persian tradition (Munn, 2006). Moreover, Anahita was "Innana" in Sumerian mythology, whose name is probably derived from the Vedic "Ishana", which means "supreme consciousness of the existence of unity", this meaning is also attributed to Rudra (Kumar, 2006), the Hindu deity (represented by three faces) underlying this string of mythological relational nets. One of the most ancient iconographic representations of Rudra is "Pashupati", the lord of animals, a terracotta seal recovered in excavation at Mohenjo-daro (c. 2000 b.C.). In ancient Sanskrit, the term 'pashu' meant 'jeeva', one that has life. Thus, "Pashupati" stood for him who created and sustained all life. The figure represents a seated meditating "yogi", and has on its head buffalo/humped bull horns and around it an animal-governed ambience.

Artemis was an orgiastic goddess that ritually killed and ate for Dyonisos (Graves, 1955). According to Cousté (1978) Shiva was her Vedic parallel goddess in India. Shiva was represented in the first Vedas under the name "Rudra", goddess of hunting, or "the hunter", "the howler", "the lord of thunder" or the "relentless archer". Likewise in the *Hymn XLIII of RigVeda (Book I)* Rudra is said to be the "Lord of sacrifice (sometimes translated as the "lord of mental power") and of hymns and balmy medicines" (i.e. a deity of health conservation; see the etymology of Artemis above). Shiva is conceptualized both as "engenderer" and "destroyer" (although usually as "destroyer"). She is the paradoxical deity that gives both life and death, and her symbol is a phallus emerging from a bottle. In Hinduism she is the destroyer of the demons that attach us to life by means of dancing inside fire (the *Homeric Hymn to Afrodita* characterizes Artemis as a goddess whose passion kills beasts, plays lyres, dances, screams, and walks through

dark forests). The employment of "enteogenic" drugs seems to be a common exercise in these creeds. "Claviceps purpurea" is the hallucinogenic drug used in mysterious Greek cults (Wasson, Hofman & Ruck, 1978), and "Soma" is used in the cults of Rudra and Indra (Rudra's daughter) according to the Hymn XLIII (among others) of Rig Veda. Consequently, and this is the keystone, Rudra is the god worshipped by ancient yoga practitioners (practitioners responsible of the practice of "pra-dhyana-dhvamsa", which can be abbreviated to "dhyana").

Kumar (2006) details a total of 61 features of Rudra, among others: a) the lord that chases away the darkness of ignorance as it is manifested in mortal beings and brings light into their experiences and perceptions (see *dhyana* etymology above); b) his name is derived from "Rodasi" which means "lord of ether" (air) or "Vayu" (cosmic breath) (see the section on the etymology of life principles); c) he helps to transcend desires; d) the bull is his steed; d) he is the pure will that leads the creation from apparent nothingness into apparent something; f) he is the lord of medicinal herbs; g) he is "Kalagni Rudra" or the transformer of fire into breath that results in a circle of exhalation-inhalation (creation-destruction); and h) he helps to transcend death and is known as "hantre" or "the killer" as well as "haneeya", the one that kills death itself and enables beings to experience deathlessness.

This is probably the deepest Indian mythological origin of Diana and Zen (i.e. dhyana) through the characterization of goddesses such as Rudra or Shiva, who evolved from Anahita or Inanna (the Sumerian equivalents), and afterwards into the Turkish and Ephesian cults of Artemis. Besides, Buddha Sakkyamuni (Siddhartha Gautama), the founder of Buddhism in the form of a new sect that separates meditation from Hinduism, belonged to the Sakyas, one of the most famed warrior families from Northern India (near to Ksatriya Varna, Nepal); therefore he was most likely educated according to traditional Hindu mythology and customs in which hunting was probably a major activity. Aymard & Auboyer (1958) acknowledge that Hindu deities probably belong to a common background of Indo-European beliefs. Moreover, we must wonder whether Greek mythology could have at anytime had contact with Indian mythology or with its associated practices. Román (1999) concludes that there was travel between both areas either before or after the expansion of Alexander out to the Indo River. Taxila was the capital of the "Hindu Kingdom", a crucial crossing point on the Indian "Royal Route". Before the conquest of Alexander, this author specifically mentions Esquilax of Carianda (c. VI b.C.), Hecateo of Mileto (c. VI b.C.) and Ctesias of Cnido (c. V b.C.), who reflected their experiences in several texts. During his campaign Alexander gained information about the Indian sages and mystics from the philosopher and historian Onesicrito (c. III b.C.). Afterwards the historian and geographer Megastenes (c. III b.C.) was the ambassador representing Seleuco Nicator at the court of the first Maurya king in Pataliputra. Megastenes provided extensive data about Indian social organization, doctrines, beliefs and mythology, particularly with comparisons of Dionysus to Shiva and Hercules to Krishna. Also, Menandro, called Milinda by Indians, was an Indo-Greek prince, and his dialogues with the Buddhist Indian monk Nagasena are some of the most important non-canonical papers on Theravada Buddhism. Finally, Román (1999) reminds us that Rome made several excursions into India and established quite

a lot of embassies, all of which probably resulted in abundant interchanges of beliefs between the two cultures.

In summary, both "Zen" and "Diana" share the same lexical root: "dhyana". The etymological analysis of "dhyana" leads to more primitive words and symbolic relational nets. Words like "dhu" and "jhana" mean pathway or vehicle to the knowledge of dying and dissipation of existence. Likewise "Diana" as goddess was featured in different mythological traditions in the same way. The ultimate deities identified with Diana and Artemis were Innana (a term very close to the Pali "jhana"), as well as Rudra, whose principal function in the Indian pantheon was to be "haneeya" or the one that kills death itself and enables human beings to experience deathlessness. Consequently, "Zen" is focused on the life and death question. In particular, Zen is focused on ending this discrimination, in the same way Rudra was linked with the same idea by ancient Hindu practitioners. In the following section we will examine this fundamental question from the inside by searching for the basic relations involved in the disconnection that we propose Zen produces in the "life/death" discrimination.

NIRVANA: THE ACTUAL OUTCOME OF ZEN FROM INSIDE (EMIC PERSPECTIVE)

We will now address Zen's emic perspective. Many people claim that nirvana consists of experiences other than those herein mentioned. They do not describe it as something that is actually obtained. And they propose that it is an outcome achieved either through inner knowledge, a mindset or place after life (see the Theravada or Tibetan Buddhism). These theories are simply two examples of spiritualistic beliefs. After our exposition, the original masters´ teachings will help us to propose a connection.

Nirvana or Satori From Inside

Hence we must say that the ultimate outcome of Zen is the acceptance of the concept of neither life nor death existing. And the only way to "understand" or "live" this experience is to radically assume the consequences of death in the present moment, i.e. to think that you are going to die right now, or even, that you have already died. The result of this experience is feeling that you have never existed.

If I believe that I will die one day and that that time could be right now, I will not think of myself nor remember myself anymore, *for me* my existence will be equal to zero. In fact I have never existed, except as a moment, which like any other moment, it comes and passes by. My death dissolves my individual perspective into a non-perspective, and thereby both anterior and posterior discriminations disappear. This is not a matter subjected to rationalization or "cold" understanding. We must progress toward our definitive end and extinction as if this extinction had already happened (right now) and remains so forever. Death is a process that has happened to living creatures since the beginning of time and will happen to all creatures currently alive. Indeed, the past before our existence does not exist anymore and we were not there, although our verbal construction simulates its existence, even now. This seems to be a simple hypothesis without any kind of relevance or utility for scientific or pragmatic

purposes. However it is a crucial standpoint for the ultimate ontological foundation of our understanding of life, to the extent that it reveals a direct and definitive exposition to our material nature, and our place in the material nature of the Universe. But, of course, one might assume a unidirectional non-self-transcendental materialist point of view if science is his or her concern and then this question is entirely irrelevant. The trouble is that when people persevere in framing life on a solely etic level they engage in an avoidance strategy that blinds them from exposition to their materiality.

Nor does the belief that one will survive in another's memory, written documents, etc. militate against the dissolution of perspective. These are merely ingenuous verbal elaborations that allow us to forget about the material implications of death, or the death implied by our material nature. These implications of death are those of the universe because the implications of materiality excerpted from death are the only ones upon which ontological assumptions are supported. The mental strategy of postponing death until the future or old age does not help us either. The only place for "my existence" is in my present and *momentary* verbal reflection on "me". "Me" and "I" are verbal particles synthesizing, reifying and hypostasizing my impermanent and always deteriorating existence. Inasmuch as my life and therefore my self-reflection (i.e. my existence) can be annihilated forever in this very instant, I do not really exist, and my self-reflection or conscience does not constitute a privileged "place" for my existence. Neither "present" is useful, because if I die right now I have never been in the present, and this is a fact that must occur in some moment of the present.

The personal exposition of death implications of being mortal, i.e. when one has refused dualistic beliefs or agnostic avoidance, triggers all the subjective (*emic*) experiences described above, as well as emotions of anguish, anxiety and astonishment. In fact you see yourself dying, being devoured by earthworms, and becoming a skeleton. And this prompts a state of derealization, although we would better describe it as a state of true realization (i.e. of understanding "reality" as it is). Finally the puzzle of everything and nothingness appears, and we verify the shocking fact of their mutual existence, which is realized dialectically as present and absent, dead and alive. This experience appears only if one keeps on feeling and thinking about the implications of death without additional theories or justification seeking based on attachment to life. In the end you feel liberated. Nothing exists, or everything exists in nothing and vice versa. Life is made by itself. We couple this understanding with the understanding that the universe is a compound, and that we are an absolutely contingent part, governed by, or consisting of its laws of creation, destruction and transformation. Individual human consciousness is irrelevant in the sense that it is a product also subjected to its specific material and non-dualistic laws of creation/destruction. One realizes that everything in Nature is moving and there is no permanence anywhere. The only thing which pervades is the nothingness or void from which everything is formed. Accordingly, the void is not a void but rather a constant transformation of diversity. Everything has its position, its meaning, its transformation and its relation to the totality of the universe. The universe is of matter and matter is void, and vice versa. Human life is no more privileged in the universe than lions, trees, etc. despite the concrete characteristics and evolution of everything. We are animals provided with a particular repertoire, and we have a specific

position and role in nature. This seems obvious, but in the moment of illumination one realizes what it means, because most of the time we think we are "dignified" by our "thinking", "language", "conscience", "imagination", etc. We, humans, are not made for any special kind of role or with cognitive-mental capacities; our mind does not exist. We are also a contingent product of nature and of its constant creation, destruction and transformation. This is the Zen secret from itself.

Ch'an Masters Sayings About Nirvana and Meditation

Nirvana. But do Zen masters really propose this non-discrimination between life and death to be the keystone in Zen? Lin Chi summed up the question in a clarifying sentence: "Fearful indeed is the bottomless black pit!" (p. 248). Illumination is not what some people expect. It is not a feeling of happiness, nor an extreme sensation of pleasure by means of which the "I" is truly seen. The "I" does not exist. Lin Chi also said that (p. 9): "Followers of the Way, mind is without form and pervades the ten directions. In the eye it is called seeing, in the ear it is called hearing. In the nose it smells odors, in the mouth it holds converse. In the hands it grasps and seizes, in the feet it runs and carries." And also "You keep trying to find buddha, but buddha is merely a name." (p. 11). Later, Lin Chi stated "Followers of the Way, as to buddhadharma, no effort is necessary. You have only to be ordinary, with nothing to do-defecating, urinating, wearing clothes, eating food, and lying down when tired. Fools laugh at me, but the wise understand." (p. 12). And finally: "If you want to be free to live or to die, to go or to stay as you would put on or take off clothes, then right now recognize the one listening to my discourse, the one who has no form, no characteristics, no root, no source, no dwelling place, and yet is bright and vigorous. Of all his various responsive activities, none leaves any traces. Thus the more you chase him the farther away he goes, and the more you seek him the more he turns away; this is called the *Mystery*" (p. 14).

Bodhidharma (c. 520), the introducer of Buddhism to China, known as the twenty eighth patriarch said that: "Whoever sees his nature is a Buddha; whoever doesn't is a mortal. But if you can find your buddha-nature apart from your mortal nature, where is it? Our mortal nature is our Buddha nature. Beyond this nature there's no Buddha. The Buddha is our nature. There's no Buddha besides this nature. And there's no nature besides the Buddha." Lastly master Chih-I (538-597) from the mount T'ien-t'ai said that (p. 26): "Death and birth neither have nor lack extremes. Reality is neither easy nor difficult, it does not exist or does it cease from existing. This is the true teaching. Obtaining the benefit of the ultimate truth is known as the non-extreme of existence and the non-extreme of non-existence." He summed up what traditional sacred texts enunciated: "The names and characteristics of the four truths appear in the book of sacred practices among its most important passages. They are death and birth, the non-birth, the infinite and that which is not created. In the four truths of the non-birth there is no oppression or suffering. Everything is empty. But how can emptiness eliminate emptiness? Material is empty in itself, as are feelings, perceptions, influences and conscience." (p. 30). A clearer quotation is: "Sensitive are the illumination, and this illumination cannot be obtained any other way. Sensitive beings are the nirvana and it

is not possible to continue beyond it. Emptiness is neither empty nor non-empty." (p. 57-58). Finally, regarding nirvana, this master was especially convincing: "The great nirvana has been annihilated, and therefore, now there is nothing more to be annihilated. This is the pleasure of pleasures." (p. 70).

Meditation. This section discusses old Ch'an masters' sayings on meditation. Ch'an is the sole practice that preserves in its name the same lexical root of the original meditation method or practice (dhyana in Sanskrit and jhana in Pali). But is "Dhyana" equivalent to sitting meditation according to the old masters? Sitting meditation and other techniques are explained elsewhere (see Hu Shih, 1953; Nukariya, 1913; Suzuki, 1935; Watts, 1957, 1969) but our proposal is that they are not essential features of Zen. In the etymology of "Dhyana" no specific reference to specific meditation exercises appear. What does clearly appear is the knowledge or question concerning death and birth (in ancient times by means of the practice of hunting). Now this question is directly shown in some old Ch´an masters sayings. The final conclusion will be that the association of Zen with sitting meditation (e.g. "zazen") is accidental, or a secondary level of conceptualization. It is described by the masters in their writings but not as a fundamental feature of Zen.

Lin Chi (c. 850) described those monks who tried to achieve "illumination" through sitting meditation exercises, as follows (c. 850, p. 78):

> "There are a bunch of shave pate monks who say to students, 'The Buddha is the Ultimate; he attained buddhahood only after he came to the fruition of practices carried on through three great asaṃkhyeya kalpas.' Followers of the Way, if you say that the Buddha is the ultimate, how is it that after eighty years of life the Buddha lay down on his side between the twin śāla trees at Kuśinagara and died? Where is the Buddha now? We clearly know that his birth and death were not different from ours."

Later in the "Lin Chi Lu" (or "sayings of Lin Chi"), this master said that (p. 92):

> "Virtuous monks, when I state that there are no dharmas outside, the student does not comprehend and immediately tries to find understanding within. He sits down cross-legged with his back against a wall, his tongue glued to the roof of his mouth, completely still and motionless. This he takes to be the buddhadharma of the patriarchal school. That's all wrong. If you take the state of motionlessness and purity to be correct, then you are recognizing the darkness [of avidyā] as master."

Finally, Lin Chi also said that (p. 106): "Even those who live alone on a solitary peak, or who eat their single meal at dawn, sit for long periods of time without lying down, and worship buddha at the six appointed hours of the day -all such persons are simply creating karma".

But he is not the only master who rejects sitting meditation as the fundamental means of achieving enlightenment, although he did do it with more severity than others. The Ch'an master known as the "Sixth Patriarch", Hui Neng (638-713), when asked by a follower about "dhyana" practice, answered: "Learned Audience, to practice the 'Samadhi of Specific Mode' is to make it a rule to be straightforward on all occasions -no matter whether we are walking, standing, sitting or reclining." (p. 5). And when he

was asked by another student, he said: "they are stubborn in having their own way of interpreting the 'Samadhi of Specific Mode', which they define as 'sitting quietly and continuously without letting any idea arise in the mind'. Such an interpretation would rank us with inanimate objects, and is a stumbling block to the right Path." (p. 7)

Master Hui Hai (c. 750, p. 12) said something similar when he was asked:

> "Are we to make this effort only when we are seated in meditation or also when we are walking? When I speak of making an effort now, I do not refer to only when we are seated meditating, when we walk, when we are standing, sitting, or lying. Rather, we are to make this effort independently of what we are doing and it should be carried out uninterruptedly at all times."

And master Huang Po (c. 800, p. 14), who was the master of Lin Chi, summarized the question as follows: "In summary, then, it is to be noted that this without-mind state is wisdom and detachment. Walking, standing, sitting, reclining, talking and all of one's other everyday actions are done without attachment and are thus transformed into non-action."

A modern Chinese Ch'an master, Hsuan Hua (1995, p. 105) states:

> "In cultivating they become greedily attached to becoming enlightened. They sit in dhyana meditation for two and a half days and figure that they ought to become enlightened then. They cultivate a dharma for two and a half days and figure that they ought to have gotten spiritual powers. They recite the Buddha's name for two and a half days and then figure that they should gain the mindfulness-of-the-buddha samadhi! You just take a look at how huge a mind of greed is involved in this. These are all manifestations of the ghost of the greedy mind."

Finally Hsu Yun (1996) says: "They think that sitting with crossed legs like withered logs in a grotto is the best Pattern. These people mistake an illusion-city for a place of precious things, and take a foreign land for their native village." (p. 52); and: "One should lay down everything with which one's body is burdened, thus becoming exactly like a dead man" (p. 22).

It seems quite clear that these commentaries clarify the question of meditation and "Zen". Zen is neither sitting meditation nor a group of "mantras", "sutras", "gathas" or "koans". Lin Chi and other masters rejected the practice of formal meditation techniques and scorned them as forms of "attachment", "evil" or "ignorance". Formal meditation practices can be employed for several uses even in clinical psychology, but they are only a secondary feature that is not the concern of the present analysis.

Derived Relational Responding Regarding Satori or Nirvana: Breaking the Life/Death Discrimination (Etic Perspective)

Now the etic perspective of Behavior Analysis, specifically that of RFT, must be useful for analyzing the behavioral processes involved in achieving "nirvana". From the etic perspective of RFT, any experience of human beings may be explained behaviorally.

Strand (2009, p. 196) suggests that "religious behavior, then, is the application of verbal frames to a temporal sequence that extends beyond the speaker's material existence", and that "religious faith is triggered by monumental life events" (p. 195), like perhaps death.

So, we refer again to the three relational frames participating in the life/death discrimination: a) hierarchical framing of everything and nothingness (everything as a whole, or as a part that along with nothingness constitutes the whole "everything-nothingness"); b) sameness/difference framing of substances underlying life in the hierarchical frame of self; and c) unidirectional or circular framing of time. In Figure 2 both relational and functional contexts and transformation of functions carried out by the Zen framing of events are depicted. The goal of Zen is to achieve "nirvana" or whole extinction, at least at a symbolic or verbal level, as we have described in previous sections. To achieve this goal it is necessary to fulfill some previous conditions as well as being solidly placed in a NOW-THEN relational frame. Both of these things are capable of producing a transformation of functions en the rest of the relational frames.

Therefore, regarding pre-requisite conditions, some are highlighted here because of their relevance: a) the firm establishment of the HIERARCHICAL "everything-nothingness" context in a "materialistic" way, in that one believes that there is no other life or continuity of the present one after death. In addition the self-as-context HIERARCHICAL frame must be oriented to a SAMENESS context where "I" or "self" is matched to "matter", not to "matter and spirit" taken as different substances, or either to "spirit" (or to a substitutive element like conscience, mind, etc.) taken as the differentiating pervasive substance with respect to "matter". However this state is a result of the achievement of illumination. How can anyone achieve these framings firmly? The answer fundamentally consists of observing the nature and processes of events and beings (mainly human beings) as they are being born, growing up and dying (see Baltasar Gracian's "Criticon" for more on this). This is the most important condition, and it is sufficient to eventually achieve enlightenment. There are however two more conditions which can accelerate the process and serve as motivators.

The second condition would be b) abandonment of social interactions so as not to be distracted by involvement in projects or activities with other people. Usually this social contact results in the maintenance of life in a self-generated transcendence (jobs or tasks never finished, or substituted for new ones), or in distracting conversations about the issues of life. And c) a third condition is monotony or repetition of tasks. They must be done in a cycle with a beginning and end, over and over.

As we can see, the first condition is called by some masters like Hsu Yun (1996) the belief in the law of causality (in others cultures, "karma"), i.e. the belief in a materialistic functioning of reality. The second condition fully coincides both with the monk lifestyles and with the myth of Diana or Artemis. The third one also coincides with the pattern of life of monks and with some of their exercises like daily routines and sitting meditation for long periods of time one day after another (all of them are different strategies to instill monotony in life and a way of "multiple exemplar training" in the coordination of NOW-HERE to THEN-THERE, but none is indispensable in itself; e.g. studying hard one day after another to become a civil servant could be a similar strategy as well.

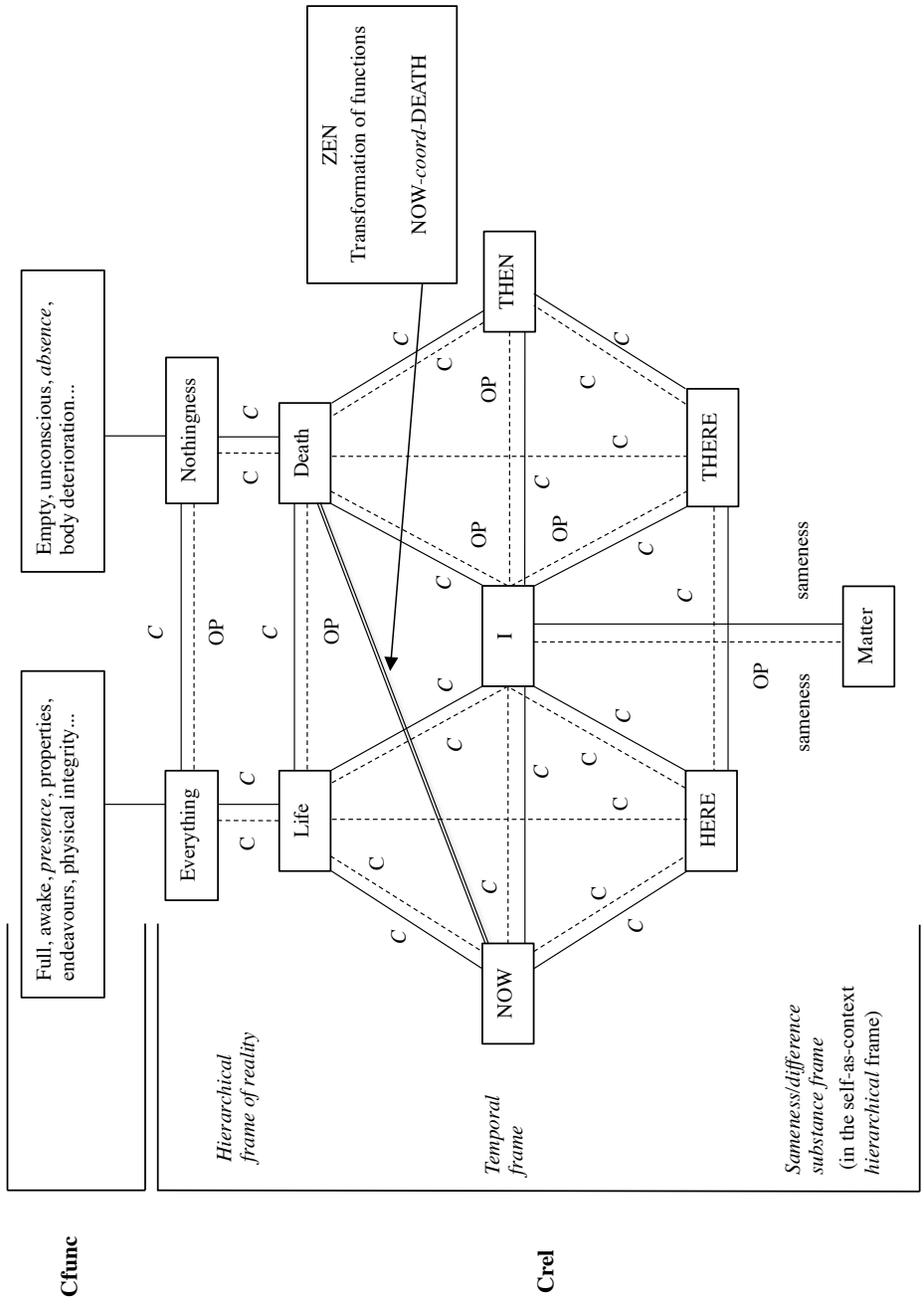

Figure 2. Verbal relational nets of the life/death discrimination (broken lines), and transformation of functions produced by Zen (solid lines).

These conditions function as "establishing operations" and increment the COORDINATION relation between the NOW-THEN and HERE-THERE (death relational frame) present in Zen. This facilitates a transformation of functions across the complete range of relations, thus abolishing any OPPOSITION frame between either I, NOW, HERE, life, "meaning" or verbal functions of life, and death, THERE, THEN, and the verbal functions of death. In addition, the HIERARCHICAL frame of "everything-nothingness" participates and contributes to its respective functional context. Thus, this massive coordination abolishes individual perspective or "sense-of-I", and then oneself is placed in a verbal context of non-existence (because the functions of "death" and "nothingness" are placed over "life" and "everything" and vice versa). Therefore, self is experienced neither as context or content, but as "non-self". This is much more powerful because verbal discriminations regarding one's own bodily persistence and integrity are substituted for annihilation, extinction, deterioration and putrefaction. The SAMENESS/DIFFERENCE frame of self-as-context must be previously configured to SAMENESS and orientated to "matter", as the fundamental condition for "satori" as we have explained. Finally, due to NOW-HERE being in a frame of OPPOSITION to the THEN-THERE of death with a unidirectional orientation, previous to the transformation effected by Zen the reversibility of these frames confers pre-eminence to the functions of "death" and "nothingness". Thus one has the sensation of disappearance, of not being born at all, and discriminations between life and death, born and unborn, etc. are abolished because both extremes have been made equal. This is the liberation from the cycle of birth-death or "samsara".

Therefore achieving death symbolically is paradoxically the only way to make it disappear. This is the goal of Zen, and hence the only "nirvana" people can reach. In this way on our view every human being has the Buddha's nature.

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