

**Published as: Van Gordon, W., Shonin, E., & Griffiths, M.D. (2016). Buddhist emptiness theory: Implications for the self and psychology. *Psychology of Religion and Spirituality*, doi.org/10.1037/rel0000079**

### **Abstract**

In recent decades, there has been growing assimilation of ancient Buddhist practices and principles into Western research and applied psychological settings. One Buddhist principle that is currently receiving an increasing amount of scientific interest is emptiness. Emptiness asserts that all phenomena – including the “self” – are empty of intrinsic existence. This paper examines how logical inquiry and evidence from diverse psychological and scientific disciplines appear to be gradually adding credence to the notion of emptiness. The paper explicates how, if emptiness theory continues to be validated and accepted by Western psychologists, it will become necessary to re-examine some established beliefs in relation to the workings of both the psychological and physical world.

Examples of how emptiness might develop and/or complement psychological and wider scientific understanding in this respect include coming to the acceptance that: (i) what is currently understood to be waking reality is effectively a shared dream, (ii) the “self” does not inherently exist, (iii) the underlying cause of mental illness is an individual’s belief that they inherently exist, and (iv) maladaptive psychosocial functioning and the absence of mental illness are not necessarily mutually exclusive occurrences. It is concluded that there is a clear need for greater research into the validity and applications of emptiness. However, if supportive empirical findings relating to emptiness continue to emerge, it is possible that some of the next important scientific “discoveries” concerning mind and matter will emerge at the intersection of ancient Eastern contemplative practice, empirically-grounded Western psychological insights, and quantum mechanics.

**Keywords:** Emptiness; Psychology of the self; Non-self; Mindfulness; Theory of everything

## Introduction

There is growing interest among Western psychologists into the attributes, correlates, and applications of ancient Buddhist practices and principles. The most obvious example is the meditative practice of mindfulness that has received substantial scientific and public attention in recent decades. Indeed, initiatives have been implemented and research has been conducted that supports the utilization of mindfulness in a wide range of applied psychological settings including: (i) clinical and health psychology for the treatment of psychological and somatic illness (e.g., mindfulness currently features – with differing degrees of emphasis – in the treatment guidelines of the *American Psychiatric Association* [APA], UK's *National Institute for Health and Care Excellence* [NICE], and the *Royal Australian and New Zealand College of Psychiatrists* [RANZCP] for the treatment in adults of either recurrent depression [APA and NICE] or binge eating disorder [RANZCP]) (Van Gordon, Shonin, & Griffiths, 2015), (ii) forensic psychology as a tool for reducing reoffending, modulating impulsivity, and regulating anger (Howells, Tennant, Day, & Elmer, 2010), (iii) occupational psychology for improving work-related wellbeing, work productivity, and job performance (Dane, 2010), (iv) educational psychology for improving academic performance, knowledge acquisition, quality of learning environment, and cognitive functioning (Burke, 2010), and (v) sport psychology for achieving peak performance, situational awareness, and task focus (Gardner & Moore, 2012).

Notable examples of other Buddhist practices that have attracted scientific and public interest include loving-kindness meditation, compassion meditation, and emptiness (Kelly, 2008). Loving-kindness and compassion meditation are similar to mindfulness in the sense that they are both meditative techniques and involve an element of attentional focus combined with a spiritual intention to relieve one's own and/or others' suffering (Galante, Galante, Bekkers, & Gallacher, 2014). However, emptiness – the subject of the present paper – can be considered as distinct from these

meditative modes because although emptiness can effectively be “practiced” during meditation, it is better considered as more of a founding and defining principle of Buddhism, and of the nature of self and reality more generally (Dalai Lama, 1995). As will be explicated in greater detail below, Buddhist emptiness theory implies that there is no logical or scientific plausibility to the principles upon which an individual constructs their self-concept, and that the notion of inherent existence (whether pertaining to the individual or phenomena more generally) is fundamentally flawed (Tsong-Kha-pa, 2004). If it is accepted that emptiness accurately reflects the manner in which individuals and reality exist, then there are significant implications for both psychological and scientific thought.

The present paper provides: (i) an explication of a traditional Buddhist construction of emptiness, (ii) an examination of how this differs from Western psychological conventions concerning the self and how individuals perceive and interact with their world, and (iii) an assessment of relevant empirical findings relating to Buddhist emptiness theory and their implications for contemporary psychological and scientific understanding of the human mind.

### **Buddhist Emptiness Theory**

Emptiness (Pāli: *suññatā*, Sanskrit: *śūnyatā*) refers to the fundamental Buddhist teaching that phenomena – including the self – are devoid or “empty” of intrinsic existence (Nhat Hanh, 1999). Emptiness does not explicitly occur as a theory in Buddhism. It is considered more as a truth of existence, or even as a state of being and way of life (Van Gordon, Shonin, Griffiths, & Singh, 2015a). However, for the purposes of the present paper, we have deemed it fitting to refer to emptiness as a theory because: (i) Western Psychology does not currently accept the principles of emptiness and views it from an “outside” perspective, and (ii) it facilitates an objective investigation of the underlying assumptions of emptiness.

Emptiness is considered by some to be one of the most poorly understood – and perhaps poorly elucidated – Buddhist teachings (Shonin, Van Gordon, Singh, & Griffiths, 2015). For example, there

is a common misconception that *suññatā* (emptiness) is a Mahayana Buddhist concept, whereas *anattā* (Pāli; non-self) is a Theravada Buddhist concept (Mahayana and Theravada refer to different Buddhist schools; for a discussion of the differences between the major schools of Buddhism, see Shonin, Van Gordon, & Griffiths, 2014a). However, within the Theravada Pāli Canon, there exists (for example) the *Greater Discourse on Emptiness* (Majjhima Nikāya [MN] 122) and the *Lesser Discourse on Emptiness* (MN 121) – known as the *Mahāsuññata Sutta* and the *Culasuññata Sutta*, respectively.<sup>1</sup> Although there is a greater emphasis on emptiness in Mahayana *vis-à-vis* Theravada Buddhism, emptiness still substantially features in the Theravada discourses. Some scholars draw distinctions between “Theravada non-self” and “Mahayana emptiness” by asserting that emptiness encompasses the notion of non-self but extends beyond the “self” to include all phenomena. However, in essence, non-self and emptiness are the same thing. If there is no self, by default, there is no other. Thus, logic dictates that non-self implies that all phenomena are empty.

Despite these terminological issues, emptiness is a reasonably common sense notion that can be validated using simple logical deduction. There are numerous Buddhist metaphysical standpoints from which emptiness can be examined and interpreted, each with their own strengths and limitations. In the present paper, we primarily focus on the Mahayana Buddhist outlook because as referred to above, emptiness is more extensively referred to in Mahayana doctrine. Arguably, the three most widely propagated Mahayana dialogues on emptiness are viewing it through the lens of: (i) *interconnectedness*, (ii) the *Mādhyamaka* view of a middle-way between extremes, and (iii) the *Yogācāra* supposition that all phenomena are dreamlike and of the nature of mind.

Interconnectedness is perhaps the most elementary of these three ontological standpoints. It refers to the notion that phenomena are intricately interconnected and that they arise in dependence upon each other (Nhat Hanh, 1999). For example, a flower manifests in dependence upon the water and air in the atmosphere, heat of the sun, seed from which it grew, nutrients in the soil, insects and

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<sup>1</sup> A search for the term *emptiness* in modern translations of the Theravada scriptures may prove ineffective because *suññatā* has often been translated (e.g., by Ñanamoli & Bodhi, 2009) as ‘voidness’.

animals that died and decomposed in order to produce those nutrients, etc. Consequently, the flower does not exist in isolation of all other phenomena and it is empty of an independent and inherently existing self. Although investigating emptiness via the concept of interconnectedness can help to foster a basic understanding of emptiness, this system of thought is not without its limitations. The most obvious limitation being that by asserting phenomena are connected to each other, the premise that they are empty of inherent existence is automatically negated (because phenomena cannot be connected to each other if they do not inherently exist) (Shonin et al., 2015). Consistent with this line of reasoning, another translation of the Sanskrit word *śūnyatā* is *boundlessness*, which is based on the assumption that it is impossible to draw absolute boundaries between one phenomenon and another.

The second of the aforementioned methods of interpreting emptiness is based on the work of the Indian *Māhāyāna* Buddhist philosopher and saint Nāgārjuna (2<sup>nd</sup> c. AD), who founded the *Mādhyamaka* (meaning “middle-way”) school of Buddhist thought. Nāgārjuna asserted that any given object cannot be said to exist: (i) in isolation from its parts, (ii) as each part individually, or (iii) as the sum of its parts (because as a collective, the component parts do not cease to be component parts but are nonetheless assigned a label that by convention denotes an entirely new phenomenon) (Garfield, 1995). Nāgārjuna advocated a “conceptual” middle way between the extremes of *inherent existence* and *nihilism*. The term “conceptual” is employed because at no point did Nāgārjuna explicitly posit that a middle way actually exists. In other words, the notion of a middle way was introduced more for didactic purposes because if it is shown and/or accepted that the two poles of a continuum are untenable, then it is also untenable that there is a middle-way that exists between them (Shonin et al., 2014a).

Nāgārjuna’s rejection of nihilism is as equally significant as his rejection of inherent existence, and was intended to dispel the erroneous view that emptiness and non-existence are interchangeable terms. Although all phenomena manifest in reliance upon causes and conditions and are thus devoid of an inherent self, this does not negate the fact that phenomena appear and can be perceived by an

onlooker. It is for this reason that the *Heart Sutra* (Sanskrit: *Prajna Paramita Hridaya Sutra*) – a fundamental *Māhāyana* Buddhist teaching on emptiness – asserts that “*form does not differ from emptiness, emptiness does not differ from form*” (Soeng, 1995, p.1). The purpose of this statement is to explicate the Buddhist view that: (i) form (i.e., appearances and all perceived phenomena) are of the nature of emptiness, and (ii) emptiness is not a mystical state of mind or an alternative non-worldly dimension, but constitutes the very nature and fabric of the reality in which we currently find ourselves (i.e., the present moment) (Soeng, 1995).

The notion of phenomena being empty yet still perceptible to the human mind is explored further by the *Yogācāra* school of *Māhāyana* Buddhism (i.e., the third metaphysical standpoint referred to above). In essence, the *Yogācāra* school of thought asserts that waking state reality occurs in much the same manner as a dream and that it unfolds entirely within the expanse of the mind. It is generally acknowledged that the *Yogācāra* Buddhist standpoint accepts that phenomena perceived by the mind are empty of intrinsic existence, but there is debate as to whether: (i) the *Yogācāra* school also accepts that the mind itself is empty of intrinsic existence, and (ii) the *Mādhyamaka* approach reflects a superior metaphysical position (Williams, 2008). However, in our opinion – and consistent with the view of the 8<sup>th</sup> Century Indian Buddhist philosopher Śāntarakṣita – the assertion that the *Yogācāra* view posits an inherently-existing mind is based on a poor understanding of the *Yogācāra* approach.

At first glance, the *Yogācāra* view that waking-state reality comprises the same underlying fabric and nature of a dream may appear to be an absurd notion that contradicts accepted psychological and scientific conventions. However, as shown below (see Box 1) in text extracted and adapted from a Buddhist interpretation of emptiness entitled *Dream or Reality* (Shonin & Van Gordon, 2014), a more in-depth examination of the *Yogācāra* position demonstrates that there are actually no logical grounds upon which to distinguish between the ultimate nature of how phenomena exist in a dream, and how they exist in waking-state reality.

<Insert Box 1 about here>

### **Emptiness of Self and Current Psychological Thought**

There are various interpretations of what delineates the self in psychology. Some of these favor a more fixed self that resides at the center of its world (e.g., Harré, 1998), whilst other elucidations – particularly from the field of social psychology – are constructed more around the notion of a dynamic and relational self (e.g., Markus, Mullally, & Kitayama, 1997; Smith & Mackie, 2007). However, irrespective of which psychological system of conceptualizing the self is preferred, the existence of a definite “self” or “I” entity is invariably explicitly or implicitly inferred in Western psychology. An obvious example is Rogers’ (1959) humanistic approach in which dimensions of *self-worth*, *self-image*, and *ideal-self* are collectively understood to comprise an individual’s self-concept (i.e., the set of established beliefs and perceptions an individual harbours about themselves). Compared to Freud’s (1923) earlier contributions based on the *id*, *ego*, and *superego*, the humanistic approach advocated by Roger’s and others is generally accepted to have greater utility in contemporary psychological settings (Kahn, 1998). Nevertheless, both Freudian and Rogerian systems of thought are constructed around the explicit acceptance of a discrete “self” entity.

The existence of a definite self is likewise explicit within Winnicott’s (1965) *true self* (based on the individual’s sense of “simply being”) and *false self* (based on the individual’s sense of doing and on societal expectation) schema. Unsurprisingly, this identification with an inherently existing self continues throughout the various developments of Winnicott’s work (e.g., Kohut, 1966, 1971; Lowen, 2004; Orbach, 2009; Symington, 2003). For example, Kohut’s (1966, 1971) self-psychology model is constructed around the idea of the *grandiose-exhibitionistic self* (i.e., the ideal person) and the *idealized parental imago* (i.e., the ideal parent). An intrinsically existing self is also proposed in Lewis’ (1990) model of self in which two distinct dimensions of selfhood are posited: (i) the

*existential self* that has a sense of being distinct from others, and (ii) the *categorical self* that understands that although it is a separate entity, it also exists within, and makes part of, the world.

Phenomenological psychology is also based on the assumption of a discrete self-entity that experiences and interacts with its world: “*The perception of the world is nothing but an expansion of my field of presence, it does not transcend the essential structures of this field, and the body always remains an agent in and never becomes an object of this field. The world is an open and indefinite unity in which I am situated*” (Merleau-Ponty, 2012, p. 318). It could be argued that the practice of *bracketing* within phenomenology enables the notion of self and the factors that condition its interpretation of the world to be transcended (Creswell, 2007). This is true to a certain degree but bracketing does not deny the existence of a self, it simply limits the influence of an analyst’s selfhood in terms of how data relating to the “lifeworld” of another individual is interpreted.

It is beyond the scope of the present paper to outline and/or appraise each of the various models of self within psychology, and the examples above are included merely to establish that an intrinsically existing self is explicit within many of the founding systems of current psychological thought. However, there are also psychological models that subscribe to a more abstract and/or holistic notion of self. Jungian theory is an obvious example in which the *Self* archetype denotes the unification of both the conscious and unconscious mind. According to Jung (1981), the *Self* signifies the whole of the being and it cannot be limited or fixed to a given location in time or space. A more abstract conceptualization of self is likewise presented in Hayes’ (2002) work on *Acceptance and Commitment Therapy* (ACT), in which a *transcendent self* is favored over a *conceptualized self* (i.e., an individual’s conception [and attachment to that conception] of who they think they are).

Jungian and ACT interpretations offer a more abstract and holistic notion of self, and are arguably positioned one step closer to the Buddhist depiction of the “emptiness of self”. Nevertheless, given that both of these systems imply that the processes of knowing and perception are locus-orientated, an inherently existing self is still implicitly assumed. Thus, throughout the



various psychological interpretations of self in the study of human personality, social relationships, cognitive and behavioral processes, phenomenology, and psychopathology, there is an explicit or implicit acceptance of an inherently existing “I” (Chan, 2008).

### **Use of the term “emptiness” in Psychology**

In terms of Western psychology’s specific usage and understanding of the term “emptiness”, there are very few instances where the term has been assimilated by the psychological literature. Furthermore, when references to emptiness are made, they mostly occur within the clinical literature. Within clinical psychology, emptiness tends to be associated with feelings of hopelessness, loneliness, and isolation (Klonsky, 2008). However, an interpretation of emptiness that perhaps sits closer to the Buddhist model has been identified in schizophrenia research. For example, according to Clark (1996), *“Schizoid patients often appear bland or faintly repellent to other people and equally often describe themselves as empty and without a self. One aspect of this emptiness is defensive in nature. It is born of the desire to protect the self. Unfortunately, however, defensive emptying serves to weaken the very thing the individual is trying to protect”* (p. 153).

In the majority of cases, the feelings of emptiness experienced by some individuals with schizophrenia-spectrum disorders are likely to be maladaptive. However, if it is accepted that emptiness does in fact represent the ultimate truth of existence, then perhaps aspects of these delusions may not be as irrational as current clinical consensus might suggest. Based on this premise, a recent clinical case study involving an individual with co-occurring schizophrenia and pathological gambling successfully utilized emptiness training (in conjunction with meditation and cognitive behavioral therapy techniques) and emphasis was placed on helping the individual accrue the necessary insight and resources to understand and accept the notion of an empty self (i.e., rather than reject it or allow it to become a cause of internal conflict; Shonin, Van Gordon, & Griffiths, 2014b).

As demonstrated by this case study example, there are clearly a number of important implications for psychology if emptiness theory is accepted as valid.

### **Empirical Investigation of Emptiness**

Based upon the assumption that the self and reality are empty of intrinsic existence, the entire canonical collection of Buddhist teachings and the commentaries upon them are in some way orientated towards undermining the belief in the intrinsic existence of phenomena. However, despite the fact that Buddhism does not subscribe to the belief in concrete self-entities, it accepts that most people do (Dalai Lama, 1995). Consequently, the Buddhist discourses can be broadly divided into: (i) teachings intended to be interpreted and practiced on the *relative* level (i.e., where reality is constructed in dualistic terms and where a *subject* exists only because there is an *object*), and (ii) those teachings that are concerned more with the *absolute* aspect of existence (i.e., the *true* or *ultimate* mode in which reality exists, which transcends the concept of duality) (Tsong-Kha-Pa, 2004). The first category of teachings are generally utilized to guide individuals through the preparatory stages of Buddhist practice such that they can subsequently apprehend the essential meaning of teachings concerning the absolute level.

Thus, a point of note concerning Buddhism is that it does not realistically expect individuals to come to a sudden and full intuitive understanding of emptiness (although there are rare reports of this happening; Sogyal Rinpoche, 1998). Indeed, according to Buddhist thought, giving rise to a full realization of emptiness invariably takes an entire lifetime (or many lifetimes) of dedicated day-to-day spiritual and contemplative practice (Dalai Lama & Berzin, 1997). Consequently, the principles of emptiness are often taught at the very start of the meditative journey, so that they can be gradually internalized as the individual accrues spiritual and life experience.

Recent empirical findings suggest that introducing individuals to emptiness in this gradual manner can enhance different aspects of psychosocial functioning. For instance, a cross-sectional study investigating the Buddhist principle of non-attachment found that non-attachment to self and

experiences predicted greater levels of acceptance, non-reactivity, mindfulness, self-compassion, subjective wellbeing, and eudemonic wellbeing (Sahdra, Shaver, & Brown, 2010). In the same study, non-attachment was negatively associated with fatalistic outlook, avoidance of intimacy, dissociation, and alexithymia (i.e., an impaired ability to identify or describe feelings). A more recent cross-sectional study showed that non-attachment to self and experience predicted prosocial behavior in adolescents (Sahdra, Ciarrochi, Parker, Marshall, & Heaven, 2015).

An intervention study involving a six-week group therapy that taught selflessness and other related Buddhist principles demonstrated that individuals with co-occurring diabetes and depression that received the therapeutic intervention reported significant reductions in anxiety over treatment-as-usual controls (Rungreangkulkij, Wongtakee, & Thongyot, 2011). More recently, a number of studies have investigated the utility of a secular (but Buddhist-based) eight-week intervention known as Meditation Awareness Training (MAT). A key pedagogic feature of MAT is the importance it assigns to training participants in the concept and practice of emptiness (as well as other Buddhist meditative and spiritual techniques). Findings – including from clinical case studies as well as randomized and non-randomized controlled trials – have shown that MAT can improve: (i) work-related stress, (ii) stress, anxiety, and depression, (iii) workaholism, (iv) co-occurring schizophrenia and pathological gambling, and (v) job satisfaction, organizational citizenship, and job performance (Shonin & Van Gordon, 2015). Qualitative studies also demonstrate that MAT participants associate understanding and practicing emptiness with improvements in psychological and spiritual wellbeing, as well with the undermining of maladaptive ego-attachment constructs (Shonin & Van Gordon, 2015).

A closely related principle to emptiness is the Buddhist concept of *impermanence* that comprises the following three dimensions: (i) the self (and indeed all phenomena) will ultimately die and cease to be, (ii) phenomena (including the self) are constantly changing and do not remain in stasis for even the smallest scientifically meaningful moment of time (i.e., one *Planck* time [ $5.39 \times$

10<sup>-43</sup> seconds]), and (iii) the transiency of phenomena (i.e., the fact that they are constantly changing) means that they – and anything resembling a self that intrinsically exists within them – can never be located in time and space (Tsong-Kha-pa, 2004). A number of trauma and grief treatment modalities have begun to integrate impermanence awareness training (often in conjunction with mindfulness training) as a means of helping individuals come to terms with the fact that: (i) life is uncertain and sudden loss of life and/or traumatic events can (and do) happen, and (ii) the only thing certain about life is that it will end in death (Cacciatore, & Flint, 2012; Cacciatore, Thieleman, Osborn, & Orłowski, 2014a; Cacciatore, Thieleman, Killian, & Tavasoli, 2014b; Kumar, 2005; Wada & Park, 2009). An increased acceptance of the impermanent nature of existence may help to facilitate the earlier-onset of the recovery and restorative phases of the grieving process (Wada & Park, 2009).

Examples of other empirical evidence indicating applications for emptiness in applied psychological settings are provided – albeit in a less direct manner – from studies of Buddhist compassion and loving-kindness meditation techniques. Compassion meditation is described in the psychological literature as the meditative development of affective empathy as part of the visceral sharing of others’ suffering (Shamay-Tsoory, 2011). Loving-kindness meditation is distinct from compassion meditation and involves the meditative cultivation of a feeling of love for all beings (Lee et al., 2012). Both compassion and loving-kindness meditative techniques can be described as being “other” as opposed to “self” focused. From the Buddhist perspective, undertaking spiritual and meditative practice with the intention of alleviating the suffering of others represents a “win-win” scenario because it not only helps other beings both materially and spiritually, but it also helps the meditation practitioner assume a humble demeanor that is essential for dismantling attachment to the belief in an inherently existing self (Shonin et al., 2014a). Studies of compassion and loving-kindness meditation have demonstrated a broad range of salutary health outcomes including improvements in (but not limited to): (i) schizophrenia symptomatology (Johnson et al., 2011), (ii) positive and negative affect (May, Weyker, Spengel, Finkler, & Hendrix, 2014), (iii) depression,

anxiety, and stress (Van Gordon, Shonin, Sumich, Sundin, & Griffiths, 2013), (iv) anger regulation (Carson et al., 2005), (v) personal resources (Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008), (vi) the accuracy and encoding of social-relevant stimuli (Mascaro, Rilling, Negi, & Raison, 2013), and (vii) affective processing (Desbordes et al., 2012).

### **Mechanisms of action**

According to Buddhist thought, psychological suffering stems from an erroneous belief in an inherently existing self. This maladaptive core belief has been termed *ontological addiction* (Shonin, Van Gordon, & Griffiths, 2013) which has been formulated as a new category of addiction (i.e., in addition to more traditional chemical addiction and behavioral addiction). Ontological addiction is defined as “*the unwillingness to relinquish an erroneous and deep-rooted belief in an inherently existing ‘self’ or ‘I’ as well as the ‘impaired functionality’ that arises from such a belief*” (Shonin et al., 2013, p.64). Buddhism teaches that maladaptive mental states manifest as a result of the imputed self: (i) yearning for objects and/or experiences that it considers will enhance its circumstances and survival prospects, and (ii) harboring aversion towards objects and/or experiences it considers will negatively influence its circumstances and/or threaten its sense of self (Gampopa, 1998). This process of constant craving is known in Buddhism as *attachment* and is defined as “*the over-allocation of cognitive and emotional resources towards a particular object, construct, or idea to the extent that the object is assigned an attractive quality that is unrealistic and that exceeds its intrinsic worth*” (Shonin et al., 2014a, p.4). Buddhism asserts that attachment leads to an exacerbation of ontological addiction and that practicing emptiness is the most effective means of deconstructing the erroneous belief in the inherent existence of the self (Van Gordon, Shonin, Griffiths, & Singh, 2015b).

In terms of attempting to explicate how the gradual internalization of emptiness facilitates recovery from ontological addiction, the following mechanistic pathways have been proposed: (i) emptiness promotes therapeutic transformation due to the client and therapist relaxing their

attachment to selfhood and connecting in an open and uninhibited manner (Segall, 2003; Sills & Lown, 2008), (ii) non-attachment to self and experience fosters increased implicit and explicit affection towards others which helps to improve prosocial behavior (Sahdra et al., 2015), (iii) emptiness leads to an increase of spiritual awareness that exerts a protective influence over life-stressors as well as feelings of loneliness, isolation, and low sense of purpose (Shonin & Van Gordon, 2015), (iv) reduced preoccupation with self facilitates a greater acceptance of death and this, in turn, reduces death- and/or grieving-related anxiety and trauma-response (Cacciatore et al., 2014a, 2014b; Kumar, 2005), (v) by gradually undermining deep-rooted core beliefs concerning selfhood, emptiness mediates the effect of psychotherapeutic techniques that work at the surface level of behavior and cognition (Chan, 2008), (vi) reducing the amount of self allocated to life and work tasks fosters strategic perspective, clarity of thought, decision-making competency, and problem-solving skills (Shonin & Van Gordon, 2015), (vii) emptiness reduces the intrinsic value that individuals with addiction disorders assign to the object of their addiction (Griffiths, Shonin, & Van Gordon, 2015), and (viii) emptiness ameliorates self-obsession which helps to reduce thought rumination and negative thinking patterns (Trungpa, 2003).

### **Implications of Emptiness for Psychology**

Outcomes from several of the aforementioned empirical investigations of emptiness (e.g., improvements in prosocial behavior and organizational citizenship) appear to suggest that individuals with a better understanding of emptiness construct a more permeable boundary between self and society. Consistent with the view by some psychologists that rigid divides between self and other are contraindicative to optimal human functioning (e.g., Sampson, 1999), emptiness may have implications in social psychology for advancing understanding of the correlates and determinants of healthy societies. As noted earlier, an inherently existing self is implicit within the study of social psychology. Indeed, an individual's belief that it exists and has a role in society is deemed to be

important for both self and societal enhancement (Smith & Mackie, 2007). However, a common misconception concerning emptiness theory is that it does not prevent individuals from assuming an identity or role within society. Emptiness recognizes and allows for the inherent uniqueness of every individual (and all phenomena), but it also recognizes that such individuals are key components of a much larger whole (Nhat Hanh, 1999). In other words, emptiness of self and the absence of self-identity are two very different notions. Emptiness allows for the complete expression of individuality but acknowledges that such individuality can only manifest out of a larger society of which the individual forms an inseparable part.<sup>2</sup>

If the principle of emptiness is accepted, then there are also implications for the field of neuropsychology. More specifically, in recent decades there have been attempts to identify the neurological seat of the self and/or consciousness. To a certain degree, these efforts have been successful because associations have been identified between certain self-related cognitive processes and the activation of specific areas in the brain. Two examples of relevance to the present paper are the: (i) association between self-referential memories and increased activation of the medial prefrontal cortex (Kelley et al., 2002), and (ii) regulation of self-recognition (normally of facial images) by the left cerebral hemisphere (Heatherton, Macrae, & Kelley, 2004; Turk et al., 2002). However, despite the fact that neuroimaging studies provide useful data in terms of brain areas that correspond to self-referential processes, the activation of such brain areas does not equate to the location of consciousness or the nucleus of an inherently existing self. Rather, neuron activation in these brain areas simply demonstrates that most individuals have a pronounced sense of self. From the perspective of emptiness theory, empirical attempts to identify the location of self or consciousness would be considered a somewhat futile endeavor because at the absolute level, consciousness and self exist as all things, and they abide just as much within the brain as they do outside of it.

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<sup>2</sup> At the absolute level, this larger society is likewise absent of inherent existence.

As previously suggested (see section on the *Empirical Investigation of Emptiness*), emptiness may have utility within mental health treatment settings, and for promoting adaptive psychosocial functioning more generally. However, in terms of its potential impact upon the treatment and understanding of mental health issues, perhaps the most significant implication of emptiness theory is the fact that if the clinical literature continues to accept, assimilate, and utilize such Buddhist principles, then it will also need to re-evaluate its assumptions in terms of what actually constitutes mental illness. The reason for this is because individuals currently deemed to be “mentally healthy” (by Western medical conventions) would not be considered as such according to emptiness theory. Indeed, the Buddhist teachings on emptiness assert that any individual that does not perceive the absolute (i.e., empty) nature of reality is effectively deluded (Gampopa, 1998).

The condition of perceiving the world in this deluded manner has recently been referred to as an *inverted hallucination*, and it involves the *non-perceiving of that which is* (Shonin et al., 2014a). This is distinct from the more regular form of hallucination that involves *the perceiving of that which is not*. Therefore, rather than a continuum with categories of mentally healthy and mentally ill at each end, a model of mental illness in accord with the theoretical assumptions of emptiness would necessitate a continuum with categories of deluded or mentally ill at one end, and extremely deluded or extremely mentally ill at the other. Implicit within such a model would be the understanding that all un-enlightened beings exhibit symptoms of mental illness, but these symptoms are more accentuated in some individuals compared to others.

Given the fact that extant psychiatric diagnostic systems accept that symptoms of mental illness can be present at the sub-diagnostic level (Davey, 2008), it could be argued that the aforementioned description of an emptiness-compatible model of mental illness does not present a significant departure from current psychological thought. However, as previously elucidated, rather than assessing the severity of mental illness according to its impact upon functionality, an emptiness-compatible model would assess illness severity according to the intensity of ego- or self-attachment. Not only does this



constitute a departure from current diagnostic procedures, but it would be conceivable (according to emptiness theory) that an individual could – by Western psychological conventions – be classified as mentally healthy and found to be functioning in an adaptive manner, yet at the same time be substantially attached to their selfhood.

Given that emptiness involves a number of subtle existential and ontological concepts and given that research into the properties, correlates, and applications of emptiness is still at an early stage, it is difficult to make reliable or definitive inferences regarding the degree of disconnect between emptiness theory and current psychological understanding of mental health. Based on findings from some of the aforementioned empirical studies indicating strong positive correlations between emptiness and adaptive psychosocial functioning, it may be that the two conceptual approaches are more compatible than might be expected. Nevertheless, there are some fundamental differences in terms of how Western psychology and emptiness theory understand mental illness, and this should be borne in mind as part of any attempt to integrate emptiness principles into Western mental health diagnostic and treatment systems.

### **A theory of everything**

In addition to implications specific to psychology, there are also implications of emptiness for the wider scientific understanding of mind and matter. In recent decades, there have been numerous attempts within physics to formulate a theoretical framework – known as a *theory of everything* (ToE) – that explains and links together all physical aspects of the universe (Hawking, 2006). An explication of leading ToE theories is beyond the scope of this paper, as is a detailed evaluation of evidence from the field of quantum mechanics that appears to support the validity of emptiness. However, suffice to say, there is growing consensus amongst quantum theorists that at the sub-atomic level, there can never be absolute certainty that a particle exists at a given position in time or space (O’Connell et al., 2010). In fact, it has been demonstrated in an experimental setting that a minute

metal blade of semi-conductor material can be made to simultaneously vibrate in two different energy states (O'Connell et al., 2010). These experimental findings are the kinetic equivalent of matter being in two different places at the same time. They demonstrate that at the sub-atomic level, particles (and any property of self that they might possess) can never be absolutely located in time and space (i.e., they exist nowhere and everywhere at the same time).

The present authors argue that emptiness theory is a type of ToE because it provides a unifying theory regarding the nature and workings of reality. Consistent with the aforementioned experimental findings, emptiness implies that phenomena never come to rest in a fixed place, are made of “transience”, and do not exist in absolute terms. Therefore, within emptiness, phenomena are deemed to be of the same nature and they are all assigned an equivalent level of importance (Norbu & Clemente, 1999). Phenomena arise from emptiness, are empty of inherent existence for the duration of their manifestation, and dissolve back into emptiness (Nhat Hanh, 1999). Thus, according to emptiness theory, reality exists as a singularity that transcends the “man-made” concepts of space and time. This is very similar to the singularity that is believed to have been present immediately before matter was created following the Big Bang (Penrose, 2006). The only difference between emptiness theory and current scientific thought is that the latter draws a distinction between the absolute energy state of the reality that existed before and after the Big Bang. However, in emptiness, no such distinction can be drawn because the pre-Big Bang singularity was already “pregnant” with reality as we know it today. At the absolute level, current reality is simply a face or expression of that “primordial” singularity and nothing has been created that has different absolute physical or metaphysical properties than that which created it.

Emptiness theory posits that no distinction can be made between the inherent existential properties of tangible phenomena such as a house, tree, or planet, and intangible phenomena such as a thought, feeling, or dream (Norbu & Clemente, 1999). Consequently, emptiness implies that matter is composed of “mind particles” and that these mind particles are only perceived as “real” because

the mind that perceives them is deluded. Consider the example of a person becoming frightened or excited during a dream – the mind has a deep-rooted propensity to apprehend as “existing” that which ultimately has no substance. Emptiness theory asserts that when a mind stops being attached to phenomena (including itself), it lets go of the idea of existing as a discrete self-entity and expands to its full capacity (Khyentse, 2007). The notion of a mind expanding to its full capacity is perhaps best explained by the analogy of a wave and the ocean. Although a wave appears to arise as a discrete phenomenon, at no time is it separate from the ocean. A deluded mind might be compared to a wave that only sees itself as a wave, whilst a mind expanded to its full capacity might be compared to a wave that has realized that it is an expression of the entire ocean.

There is also evidence from within psychology that appears to support the assertion within emptiness theory that the universe (or multiverse) is “mind made”. The (now scientifically more accepted) phenomenon of *near death experiences* suggest that the mind continues (for a limited or unlimited period) to create and then live in a reality beyond clinical death (Belanti, Perera, & Jagadheesan, 2008). To a certain degree, this appears to be consistent with the notion in emptiness theory that the deluded mind eternally migrates from one self-created reality to another. Some examples of these mind-created realities include: (i) waking-state reality, (ii) dream reality, and (iii) the reality that exists between death and re-entering into waking-state reality (Tsong-Kha-Pa, 2004). Some of these realities are understood to be created and lived in primarily by a single mind (e.g., dream state), whilst other realities – such as waking-state reality – are understood to be co-created. Examples of other mind realities posited by emptiness theory are perhaps less familiar to current psychological thought and include the existence of entirely different world systems (Dalai Lama, 2004). However, even the notion that there exist different realities and world systems is not completely foreign to modern science because *M-theory* (and related mathematical models from quantum mechanics) asserts that reality actually has multiple (i.e., more than ten) dimensions to it (Hawking, 2010; Schwarz, 1999). Although emptiness theory asserts that the number of conceivable

realities is infinite, recent mathematical and theoretical models from quantum mechanics appear to be closing some of the ground between modern scientific and ancient Eastern perspectives.

A further body of evidence from within psychology that adds credibility to emptiness theory as a valid ToE comes from neuropsychology and the basic principles of salutatory conduction through the nervous system. Upon stimulation, sense receptors are understood to send electrochemical impulses via the peripheral nervous system to the central nervous system (CNS) (Vogel, 2009). The CNS receives these electrochemical messages and transforms them into coherent information that can be acted upon. However, without exception, an individuals' sense of movement, touch, taste, pain, pleasure, sight, sound, and so forth is based upon a mental impression formulated by the CNS. In other words, the CNS transforms electrochemical information into a 'working' three-dimensional image or movie. However, consistent with the principles of emptiness, although there is the impression of living in and moving through a physical world, in truth, there is never any movement and life is experienced solely as the mental projection of the CNS.

### **Conclusion**

The principle of emptiness arises from the 2,500-year-old Buddhist system of spiritual practice and refers to the belief that all phenomena are empty of intrinsic existence. Current scientific and psychological interest into the properties, correlates, and applications of emptiness has probably grown out of increasing public and scientific interest into the Buddhist meditative practice of mindfulness. Cultivating an advanced level of competency in mindfulness – the practice of becoming aware of the present moment - requires a concrete understanding of the true and absolute (i.e., empty) mode in which the present moment exists (Nhat Hanh, 1999).

Logical inquiry and evidence from a wide range of scientific disciplines appears to be gradually adding credence to the notion that phenomena are empty of intrinsic existence. If emptiness theory continues to be validated and accepted by Western psychology, it will become necessary to re-

examine some established beliefs in relation to the workings of both the psychological and physical world. Examples of how emptiness might develop and/or complement psychological and wider scientific understanding in this respect would include coming to the acceptance that: (i) what is currently understood to be waking reality is effectively a shared dream, (ii) phenomena are in a constant state of transience, are “dream like” and/or “mind-made” in nature, and do not occupy a fixed place in time and space, (iii) physical space and all that it occupies is of the composition of the mind, (iv) the self does not inherently exist, (v) the underlying cause of mental illness is the belief in inherent self-existence, and (vi) maladaptive psychosocial functioning and the absence of mental illness are not necessarily mutually exclusive occurrences.

Further empirical evaluation into the validity and applications of emptiness is clearly needed. However, perhaps one of the biggest challenges in terms of assimilating emptiness into Western research and applied psychological settings is the fact that as soon as emptiness is adopted as an object of empirical research or contemplative practice, there occurs a betrayal of the essential meaning of emptiness. According to emptiness theory, even emptiness is devoid of intrinsic existence (Tsong-Kha-Pa, 2004). Consequently, during the empirical study or practice of emptiness, there is a risk of emptiness being reified and erroneously apprehended as a metaphysical phenomenon that can be realized, analyzed, and categorized. Indeed, any investigation of emptiness can only be undertaken according to the norms and laws of empiricism that are not necessarily compatible with the profound nature of emptiness that exists outside the confines of conceptuality (Puhakka, 2015).

In spite of this, if supportive empirical findings relating to emptiness continue to emerge, it is possible that some of the next important scientific “discoveries” concerning mind and matter will emerge at the intersection of ancient Eastern contemplative practice, empirically-grounded Western psychological insights, and quantum mechanics.

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**Box 1. Extracted and Adapted from *Dream or Reality* (Shonin & Van Gordon, 2014)**

**Professor:** Are we awake or are we dreaming?

**Student:** We are awake, of course.

**Professor:** How can you be certain?

**Student:** That is easy. In a dream, everything is illusory and the product of the mind. However in waking reality things are real and exist.

**Professor:** So according to you we are currently awake and therefore my fountain pen really exists.

**Student:** That is correct. The pen writes when I press it against the paper. It is real.

**Professor:** So your criteria for reality is based on the function that an object performs?

**Student:** Of course.

**Professor:** Take away all of the components of the pen, so that you are left with only the nib. Does the nib still write?

**Student:** Yes, it still works.

**Professor:** But the nib isn't the pen?

**Student:** Good point. It appears my original premise was wrong. Although it performs the function of the pen, the nib is just a single pen component, and not all the parts that comprise the pen. One thing cannot be another thing.

**Professor:** So is the pen real?

**Student:** Well, having just taken the pen apart and seen that all of its components are present, I would still conclude that the pen is real. I still think we are awake.

**Professor:** So you are saying that the pen exists as the sum of its component parts?

**Student:** Yes, that is correct.

**Professor:** I see. But you have already said that something cannot be two things at the once. Yet now you seem to be saying that when the nib, cartridge, lid, and other pen components are put together, they stop being those components and become a new single entity?

**Student:** No, that is illogical. The component parts still exist in the pen, but the word "pen" is employed to designate the collection of individual components that together form that object.

**Professor:** So you are saying that "pen" is just a label?

**Student:** Well I guess so.

**Professor:** But if "pen" is just a label then the pen does not inherently exist. So are you now saying that we are currently dreaming?

**Student:** I am a bit confused now. Irrespective of whether we are awake or dreaming, although things certainly appear to exist, there is no logical basis upon which to make that claim. A dream occurs within the expanse of the mind, and in a dream, there is the impression of coming and going, yet nothing really moves. Whilst dreaming, there is also near and far, but there is actually no distance. In a dream, although things appear, they are illusory and cannot be said to truly exist. However, composite objects perceived by the waking mind are also devoid of intrinsic existence. Are you saying that waking reality also unfolds within the expanse of the mind?

**Professor:** You will have to work that out for yourself.

**Student:** We still have not determined whether we are currently dreaming or awake.

**Professor:** Does it really matter? Can't you just relax and enjoy each moment of whichever reality you are currently in?

**Student:** Yes, I think I can.