

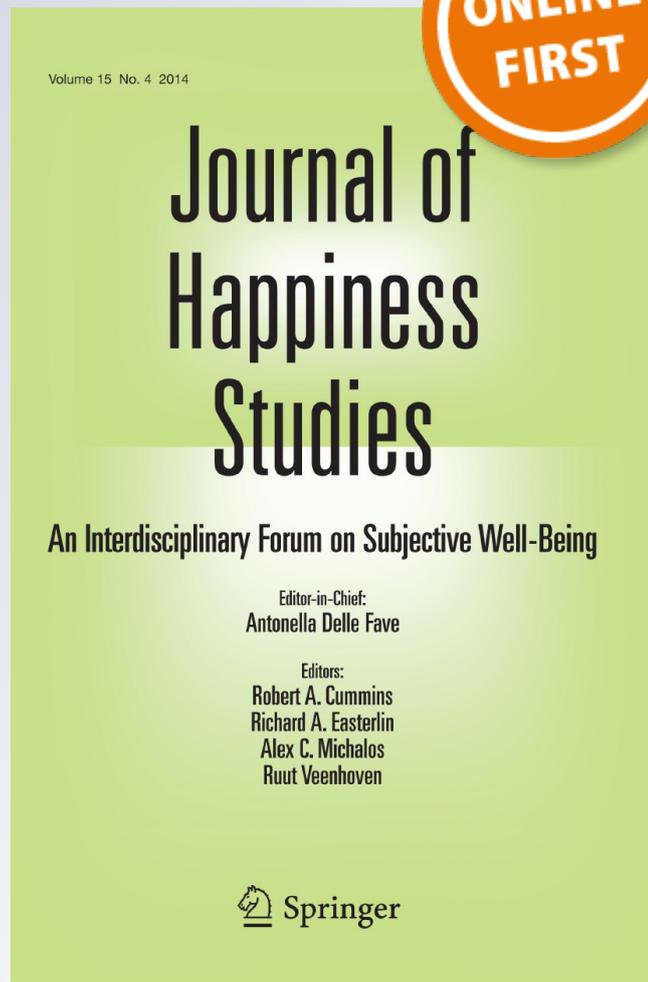
# *The LIFE Model: A Meta-Theoretical Conceptual Map for Applied Positive Psychology*

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# The LIFE Model: A Meta-Theoretical Conceptual Map for Applied Positive Psychology

Tim Lomas · Kate Hefferon · Itai Ivtzan

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**Abstract** Since its emergence in 1998, positive psychology has flourished. Among its successes is the burgeoning field of applied positive psychology (APP), involving interventions to promote wellbeing. However, the remit of APP is currently unclear. As such, we offer a meta-theoretical conceptual map delineating the terrain that APP might conceivably cover, namely, the Layered Integrated Framework Example model. The model is based on Wilber's (J Conscious Stud 4(1):71–92, 1997) Integral Framework, which features the four main ontological 'dimensions' of the person. We then stratify these dimensions to produce a comprehensive conceptual map of the person, and of the potential areas of application for APP. For example, we deconstruct the collective dimensions of Wilber's framework using the levels of Bronfenbrenner's (Am Psychol 32(7):513–531, 1977) experimental ecology. The result is a detailed multidimensional framework which facilitates a comprehensive approach to promoting wellbeing, and which charts a way forward for APP.

**Keywords** Positive psychology · Applied psychology · Wellbeing · Practice · Intervention

It is just over 16 years since Martin Seligman used his 1998 APA presidential address to inaugurate the new field of positive psychology (PP) (Fowler et al. 1999). Since then, PP has flourished, drawing in graduate recruits and established scholars, and attracting funding and interest from diverse sources within academia and beyond (Rusk and Waters 2013). One of the most successful aspects of PP is the emergent discipline of applied positive psychology (APP), which can be defined as the science and practice of improving wellbeing. At the heart of APP is a growing corpus of positive psychology interventions (PPIs) designed to promote wellbeing in practical ways, as elucidated throughout this article. APP

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has proved to be a very fruitful branch of PP, as reflected in the number of postgraduate courses devoted to APP. However, in spite of, or rather because of, the rapid emergence of APP, the development and accumulation of PPIs has accelerated ahead of any systematic theoretical conceptualisation of the field (Parks and Biswas-Diener 2014). As such, the present article offers one such conceptualisation, in the form of a model which we have labelled the Layered Integrated Framework Example (LIFE) model. The article is in three parts. In the first section, we examine the nature and remit of APP, and consider what constitutes a PPI. In the second section, we outline the need for a multidimensional approach to wellbeing. In the third section, we articulate the LIFE model itself, and use it to organise the field of APP, thus providing a comprehensive strategy for enhancing wellbeing.

## 1 Applied Positive Psychology and Positive Psychology Interventions

Turning first to the nature and remit of APP, the spirit of APP is one of praxis. In the Nichomachean Ethics, Aristotle [2000 (350 BCE)] constructed a tripartite classification of human activities: *poiēsis* (productive/creative disciplines); *theōria* (contemplative endeavours); and *praxis* (practical occupations involving the skilful application of ideas). In more recent times, an eloquent articulation of praxis was formulated by Marx [1978(1845), p. 145], who suggested that ‘The philosophers have only interpreted the world, in various ways. The point, however, is to change it.’ The concept of praxis has been influential in the social sciences, where it is defined as ‘practical action informed by theory’ (Foster 1986, p. 96). In the case of APP, this ‘practical action’ is specifically in the direction of improving wellbeing. This spirit of praxis has seen PP being applied in various practical domains, from positive education (Seligman et al. 2009) to positive clinical psychology (Wood and Tarrier 2010). In formulating our LIFE model, we offer a way of conceptualising the diverse ways in which APP can promote wellbeing across different areas of life.

Before we introduce this model, it is worth asking what APP *does* in these applied domains. PPIs constitute the core of APP; however, there is on-going debate around the necessary and sufficient criteria for recognising interventions as PPIs. Parks and Biswas-Diener (2014) identify and critique three broad conceptualisations of PPIs. Content-level definitions define PPIs as interventions that focus on ‘positive topics.’ A weakness here is that this encompasses *any* pleasant activity, with no requirement that any positive outcome (after the event) be generated. Variable level definitions identify PPIs as interventions that work upon a positive mechanism (e.g., broaden-and-build; Fredrickson 2001) or produce a positive outcome (e.g., positive cognitions). While this definition is more selective, at issue is that the concept of a ‘positive’ outcome is often vaguely operationalized. A third type of definition identifies PPIs as practices designed to promote wellness, rather than fix dysfunction and alleviate distress. However, this definition overlooks recent developments around using PPIs for the treatment of mental disorders, e.g., positive psychotherapy for depression (Seligman et al. 2006). Moreover, all these definitions struggle to accommodate recent theorising in PP around the inadequacy of simplistic binary polarisations of ‘positive’ and ‘negative.’ For example, ostensibly positive emotions/qualities can have adverse outcomes; e.g., optimism is implicated in under-appreciation of risk (Peterson and Vaidya 2003). Conversely, negative emotions may ultimately serve wellbeing; e.g., anxiety can alert us to potential threats (Seligman and Csikszentmihalyi 2000). Going further, Lazarus (2003) queries the very possibility of even assigning a singular valence to emotions; for

example, hope is co-valenced, comprising both the wish for a desired outcome, and fear that it will not happen. Moreover, from a wider psychosocial perspective, the significance and desirability of emotions cannot be judged without taking context into account; for example, forgiveness can be maladaptive in the context of an on-going abusive relationship (McNulty 2011). More philosophically, the relationship between positive and negative is inherently dialectical; these are binary terms that are by definition conceptually co-dependent (Ryff and Singer 2003). Thus, Resnick et al. (2001) caution against polarising psychology into 'good' and 'bad,' but urge us to appreciate the complexities of the good life. This more nuanced approach to wellbeing has been labelled 'positive psychology 2.0' (Wong 2011).

Given these conceptual debates around the term 'positive,' it can be difficult to state with certainty what constitutes a PPI. Moreover, it may not be possible to categorise a particular intervention as being *exclusively* a PPI. For example, since Kabat-Zinn (1982) operationalized the concept of mindfulness, it has been applied in diverse settings: in being used to treat physical illness, like chronic pain, it could be regarded as a medical intervention (Kabat-Zinn 1982); in being adapted for the treatment of mental illness, like depression, it might be deemed a clinical psychology intervention (Teasdale et al. 2000). However, mindfulness has also been extensively used in non-clinical settings, not for alleviating distress per se, but for promoting general wellbeing (Smith et al. 1995). This last example might offer us *one* potential way of identifying PPIs: PPIs may be defined not so much by the practices themselves as by the population they are applied to; we could thus broadly define PPIs as empirically-validated interventions designed to promote wellbeing in a non-clinical population. For example, one-to-one PPIs might be viewed as 'therapy for people who don't want therapy.' It is important to state that this would not stop PPIs still being used to address mental health issues, as with positive psychotherapy (Seligman et al. 2006). The salient point here is how one conceptualises such issues, and classifies those people deemed to be suffering from them. The question of when dysphoria become recognised and treated as clinical disorders is much debated (Flett et al. 1997). Nevertheless, one can identify situations in which a person is judged to be experiencing a mental health problem, but this is not regarded as a clinical disorder, either by clinicians or by the person themselves. For instance, a person may ascribe their distress to a 'legitimate' sense of existential anomie, rather than view it as a psychopathology. In such cases, some people may have previously undertaken psychotherapy; others may now choose to engage with a psychologist who could provide a relevant PPI. Furthermore, this general definition of PPIs (interventions to promote wellbeing in a non-clinical population) would not *prevent* PP informing treatment in clinical settings; for example, activities typically regarded as PPIs (e.g., gratitude journals; Emmons and McCullough 2003) may be used in clinical psychology as adjunctive treatments alongside more conventional therapies (Wood and Tarrrier 2010). Nevertheless, this general definition does offer a potential heuristic for ascertaining what constitutes a PPI. Having considered what PPIs are, the LIFE model below can help us identify the areas of application in which PPIs might be used. However, before articulating this model, we discuss the value of, and need for, a multidimensional approach to wellbeing.

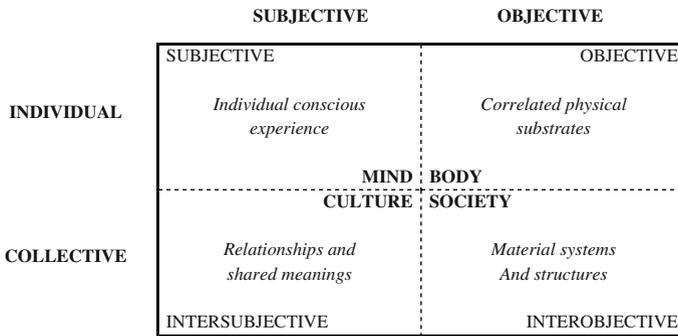
## 2 Multidimensional Approaches to Wellbeing

The proposed LIFE model involves a multidimensional conceptualisation of the person, and therefore offers a multidimensional approach to wellbeing. Such approaches to health and wellbeing are increasingly common. An early pioneering example is the World Health

Organization's (1948) definition of health as 'a state of complete physical, mental and social well-being, and not merely the absence of disease and infirmity.' This recognises three main dimensions to the person, and their health/wellbeing: physical, mental, and social. The same dimensions are also evident in Engel's (1977) biopsychosocial model of health. More closely related to PP, Jahoda's (1958) 'positive mental health' construct featured a biopsychosocial approach to wellbeing. However, our LIFE model is based on a newer multidimensional conceptualisation of the person, the Integral Framework, developed by the American philosopher Wilber (1997). We shall first outline Wilber's framework, and its relevance to PP, before explaining below how we have adapted it through a process of stratification to create our own LIFE model. Wilber's framework is described as an ontological 'map' elucidating 'the basic dimensions of an individual' (Esbjörn-Hargens 2010, p. 73). The particular innovation of Wilber's framework is that it identifies *four* dimensions, rather than the three dimensions of the WHO, Engel, and Jahoda models. These dimensions are produced by juxtaposing two common binaries, creating a logically appealing framework.

The first binary is the *mind-body* dichotomy. The relationship between subjective 'mind' and objective 'body' has perplexed thinkers throughout the ages, and was famously described by Chalmers (2004) as the 'hard problem' of philosophy. Various perspectives have developed over the centuries: materialistic monism treats the physical body as the primary (or even only) reality, with subjectivity treated reductively as an illusion or epiphenomenon; conversely, transcendental monism (or idealism) views substance as a mental construct (e.g., a figment of mind); finally, dualistic perspectives acknowledge the reality of both body and mind, with various theories taking different positions on the nature of their interaction. Dualism underlies the dominant paradigm in contemporary consciousness studies, the neural correlates of consciousness (NCC) approach, which proposes that states of mind are accompanied by analogous neurophysical states (Fell 2004). Currently the paradigm aims only to chart the neurophysiological correlates of mental states—our understanding is not sufficiently advanced to ascertain directional causality, or solve Chalmers' (2004) 'hard problem' (i.e., *how* brain activity might generate consciousness). Nevertheless, the NCC approach acknowledges both subjective mind and objective body/brain. This 'mind-body' distinction, then, is one of the two binaries that create the Integral Framework. The second binary is the *individual-collective* dichotomy. This reflects the idea that there are two fundamental 'modes of existence'—'agency' and 'communion' (Bakan 1966). Agency refers to the way people exist as discrete, autonomous individuals, whereas communion reflects the idea that people are *also* inextricably embedded in socio-cultural networks that sustain their being, physically and/or mentally. The study of these modes of being has tended to be somewhat compartmentalised in academia, with psychology focusing on agency for example, and communion addressed by fields like sociology. However, theorists have begun to acknowledge the limitations of studying these modes in isolation, and the need to explore their complex interactions. Thus, the term 'psychosocial' has become increasingly prominent in academia (Martikainen et al. 2002). Consequently, the individual-collective distinction constitutes the second dichotomy that forms the Integral Framework.

Wilber's (1997) innovation was to juxtapose these two binaries, creating a two-by-two matrix of four quadrants, as shown in Fig. 1. Beginning with the top left of the schematic, the subjective-individual quadrant is the domain of the mind, an umbrella term encompassing general subjective experience, including conscious thoughts, feelings and sensations (as well as unconscious subjective dynamics). The objective-individual quadrant is the domain of the body/brain, i.e., physiological functioning and behaviour. The subjective-collective quadrant is the domain of relationships, and the common hermeneutic



**Fig. 1** Schematic diagram of the four quadrants, adapted from Wilber (1997)

world space these generate, including shared meanings and values; we can refer to this ‘intersubjective’ domain as ‘culture’ (as in ‘the culture’ of a group of people). Finally, the objective-collective quadrant is the domain of structural social networks, like the material manifestations of communities (such as transport or housing infrastructure), or more intangible processes such as economic systems; we can refer to this ‘interobjective’ domain as ‘society.’ Wilber’s framework represents a powerful tool for conceptualising wellbeing in an integrated way. For example, Hanlon et al. (2010, p. 307) have deployed it in public health to understand the ‘maze of interconnected problems’ which affect wellbeing. Their article presents a hypothetical case-study, which is comparable to the following example. A person is depressed due to unemployment. Considered from the individual-subjective perspective, their suffering can be appraised in terms of distress, understood using cognitive theories of mental illness, and addressed through therapy. From the individual-objective perspective, their suffering can be conceptualised in terms of brain dysfunction, understood with neurochemical theories, and treated through medication. From the subjective-collective perspective, their suffering can be apprehended in terms of cultural meanings around unemployment, understood through social constructionist theories, and tackled by challenging societal norms. Finally, from the objective-collective perspective, their suffering can be considered in terms of socio-economic factors that both contribute to and result from unemployment, understood through economic and political theories, and addressed through efforts towards a fairer society. Hanlon et al. argue that all these ‘key dimensions of human experience need to be considered, harmonized and acted on as a whole’ to fully address the wellbeing of the person (p. 311).

Before setting out our own adaptation of Wilber’s framework in the form of the LIFE model, we can see how his framework constitutes a powerful device for organising constructs within PP. Its power resides partly in the fact that it is ‘content free:’ rather than advocating theories in a given area, extant theories and research from that area can be situated within the quadrants (this is why Wilber’s framework, and our LIFE model adaptation, are *meta*-theoretical models). First, within the subjective domain, we can situate the abundance of constructs directly pertaining to mental health and illness. Here, wellbeing can be conceptualised positively as the presence of desired outcomes, like hedonic pleasure, or negatively as the absence of mental disorder and distress. Desirable outcomes include the triumvirate of elements comprising the well-lived life according to Seligman (2002): the pleasurable life (constructs like SWB); the engaged life (notions like

flow; Csikszentmihalyi 1990); and the meaningful life [as reflected in Ryff's (1989) model of PWB]. (Situating these constructs here does not mean they are unconnected to the other domains. Ryff's model encompasses relationships, for instance, which pertains to the intersubjective domain. Indeed, the *point* of an integrated framework such as Wilber's is that the domains are interlinked.) This domain also includes the array of desirable psychological qualities explored by PP, such as resilience (Masten 2001). Additionally, as argued above, the remit of PP not only covers these ostensibly 'positive' constructs, but extends to 'negative' phenomena like sadness (Wong 2011), which can also be located here. As the most 'psychological' domain, this is the root quadrant; the others are only relevant to PP to the extent that they impinge on this domain (e.g., affect SWB). Nevertheless, examining the other domains enables us to appreciate the multitude of factors which can influence wellbeing.

The objective domain concerns the physiological functioning and behaviour of the body and the brain. First, this quadrant encompasses everything relating to physical health, and so overlaps with Seligman's (2008) concept of 'positive health.' Larson (1999) has identified numerous models of health, including: the WHO model (noted above); the medical model, which defines health as the 'absence of disease and disability' (p. 124); the wellness model, concerned with 'progress towards higher levels of functioning' (p. 129); and the environmental model, pertaining to successful adaptation to one's milieu. These models can all be situated here, as can the diverse health behaviours which impact upon physical wellbeing, like exercise (Hefferon and Mutrie 2012). It is worth emphasising that some models and concepts may not 'fit' precisely within one quadrant, but intersect or overlap more than one quadrant. For instance, the 'wellness model' of health pertains to connections between physiological functioning and subjective states. Indeed, as noted above, a central point about Wilber's framework is that the quadrants are not hermetically sealed, but interact and reciprocally influence each other. As such, a key element of research located in this quadrant is the exploration of connections between bodily and subjective states. For example, embracing the NCC paradigm (Fell 2004), a 'positive neuroscience' research program has begun exploring the 'neural correlates of wellbeing' (Urry et al. 2004), such as trait asymmetric activation of the pre-frontal cortex (Davidson 2000).

The intersubjective domain covers relationships, and the shared 'culture' (e.g., values) that these generate. A key construct pertaining to this domain is social capital, defined by Bourdieu (1986, p. 248) as the 'sum total of the resources, actual or virtual, that accrue to an individual (or a group) by virtue of being enmeshed in a durable network of more or less institutionalized relationships of mutual acquaintance and recognition.' Social capital is a complex and elastic construct, encompassing all types of relationship of relevance to PP. These range from bonds within the home, addressed by specialities like positive relationship science (Fincham and Beach 2010), to relations at school or at work, explored by positive education (Seligman et al. 2009) and positive organizational scholarship (Cameron et al. 2003). This domain captures the manifold ways in which relationships are central to wellbeing, from engendering positive emotions (e.g., love) to being sources of social support (Umberson and Montez 2010). It also encompasses the emergent forms of 'culture' generated by relationships. This includes the way cultural systems can generate values and worldviews that are generally considered conducive to wellbeing, like religion (Koenig 2009), or detrimental, like materialism (Van Boven 2005). (An intriguing question here is whether Wilber's (1997) Integral Framework, and our LIFE model, are *themselves* culturally specific worldviews,

as we explore in an endnote.<sup>1</sup>) This domain also includes cultural norms—e.g., in relation to gender (Lomas 2013)—that influence behaviour and so affect wellbeing.

Lastly, the interobjective domain refers to structural aspects of society: impersonal processes, institutions and environments which ‘scaffold’ people’s lives. These structures range from the material conditions of the surrounding environment to macro-economic forces that influence employment. This domain thus encompasses the work of theorists across different fields exploring how such structures impact upon wellbeing, from economics to international development to politics. In economics, SWB has been used as an alternative to gross domestic product (GDP) as an index of societal progress, and consequently scholars have assessed the impact of factors like income on SWB (Layard 2005). From an international development perspective, relevant structural factors include indices used by the UN (2013) to calculate their ‘human development index,’ i.e., living standards, health outcomes, and education provision. Political factors influencing wellbeing include the quality of governance, as assessed by the World Bank for instance (Kaufmann et al. 1999). Further potential factors extend to the quality of the environment (e.g., air pollution), from a local community level (Burke et al. 2009) to a wider national and even global level (New Economics Foundation 2013).

### 3 The LIFE Model

Having introduced Wilber’s (1997) Integral Framework, we can now examine the way we have adapted this to produce our own LIFE model, represented graphically in Fig. 2. Essentially, this model introduces further nuance to our understanding of wellbeing by viewing each domain as being layered or stratified, delineating different strands within them. There are many possible ways of ‘carving up’ the domains, and the approach adopted in the LIFE model is by no means the only viable option; indeed, Wilber himself identifies different strata within his own model (focusing primarily on the emergence of particular qualities in human evolution). This is the reason our own adaptation is called the ‘Layered Integrated Framework *Example*’—our model is just one example of how such layering might be done, and of a multidimensional model generally. Our approach is to

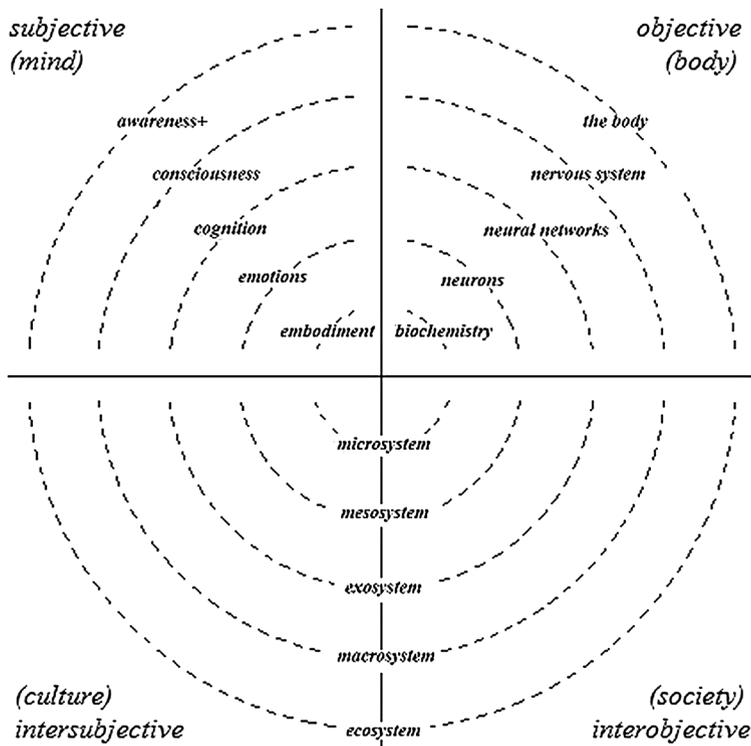
<sup>1</sup> The issue of whether Wilber’s (1997) Integral Framework is *itself* a culturally specific worldview is somewhat complex. Wilber’s epistemological position might arguably be described as critical realist. While critical realism recognises that truth and objectivity are problematic, it disavows radical relativism, and holds that it is “unwise and premature to abandon wholesale, claims to objectivity and the search for ‘truth’” (Layder 1998, p. 3). Wilber (1995) acknowledges that all viewpoints (including theories such as his own) are inextricably perspectival and culturally situated; there is no Archimedean ‘view from nowhere’ (Nagel 1989). However, at the same time, Wilber holds that some viewpoints are more accurate than others, and even if we cannot achieve absolute objectivity, we can make *progress* towards it; here he cites Thomas Kuhn (1970, p. 206), who, despite formulating the powerful concept of shifting scientific paradigms, remained a ‘convinced believer in scientific progress’. As such, Wilber (1995) contends that his framework does accurately capture the four basic ontological dimensions of the person. At the same time, he allows that this framework could yet be superseded by still more accurate conceptualisations; for example, while in a relative sense the distinction between objective body and subjective mind may be valid, people in future may eventually deem this distinction to be *ultimately* illusory, as some spiritual teachings suggest [e.g., Sri Aurobindo 1970]. The authors take a similar critical realist position with respect to the domains of the LIFE model, which are regarded as provisionally accurate and valid. The issue is slightly different with regard to the *layering* of the LIFE model. As set out in the section on layering, the identification here of five specific layers is somewhat arbitrary; one could easily stratify the domains in any number of ways, choosing a greater or lesser number of layers, or deciding to focus on different specific layers, depending on one’s agenda and priorities.

view each domain as comprising various 'levels,' where each level encompasses or supersedes the level 'below' it. This stratification approach will become clear as we consider the domains in turn, and outline how we have delineated various levels within. In keeping with the focus of this paper on *applied* PP, we shall identify relevant interventions for each level in turn. In many instances, we draw on existing PPIs; in that sense, the model simply clarifies the field as it stands. At times though, the model helps us identify potential PPIs that could be developed in future, thus pointing the way ahead for APP.

Starting with the subjective domain, four different phenomenological 'strata' are readily identifiable: embodied sensations, emotions, cognitions, and conscious awareness. More contentiously, one could regard these strata as proceeding from 'lower' to 'higher' in some respects, with each level superseding the one before. This claim rests on two premises. First, phylogenetically, these strata arguably emerged in this sequence: embodied sensations would have preceded discursive cognitions in our evolutionary progression (MacLean 1990). Second, and similarly, this sequence arguably also applies to ontogeny: infants are thought to develop sensory capacities before they acquire emotions, and complex thoughts later still (Piaget 1971). To these layers we have added a more contentious fifth stratum, labelled tentatively as 'awareness+.' This level reflects the work of theorists who propose that conscious awareness can be superseded by further advanced developmental capacities (Josipovic 2010). Such capacities include 'non-dual awareness,' the experiential dissipation of the dualistic 'subject-object construct,' which is regarded as an advanced stage of consciousness associated with spiritual experience and development (Wilber 1997).

From an APP perspective, we can examine PPIs that 'work on' the various subjective levels. This means *psychological* techniques for enhancing wellbeing (i.e., the kind one could do sitting alone at home), in contrast to PPIs involving actions/behaviour (which we can situate in the objective quadrant), relationships (the intersubjective quadrant), or structural features of the environment (the interobjective quadrant). Proceeding through the strata, we can identify PPIs pertaining to each of the levels, thus providing a comprehensive arsenal of strategies aimed at the subjective domain. However, we must emphasise that these levels are not rigidly separated, and most PPIs touch upon more than one level. For example, PPIs targeted at emotions include interventions to enhance emotional intelligence (EI; Mayer and Salovey 1997); while evidently pertaining to emotions, EI also involves emotional awareness (i.e., consciousness) and ratiocination (i.e., cognitions). Thus, describing PPIs as targeting a particular level is simply a heuristic device, and we must strive to remain cognizant of the complex interrelationships between the levels. Nevertheless, in terms of appreciating the range of PPIs available, differentiating these according to the levels is a useful strategy.

Taking first embodiment, PP has begun to explore the relationship between embodied subjectivity and wellbeing, for example in relation to post-traumatic growth (PTG) (Hefferon et al. 2010). Such work has helped address Seligman's (2008) call, in his paper on positive health, for PP to become more than a 'neck-up' focused discipline. From an APP perspective, practices like 'body-mind' therapy work with embodiment in promoting wellbeing (Barratt 2009). Moving 'up' levels, the importance of positive emotions to PP can hardly be overstated, these being almost the defining feature of the field. However, in terms of identifying emotion-focused PPIs, this does not simply mean PPIs that promote positive emotions as an outcome, as arguably *most* PPIs are ultimately geared towards making people feel better in some way (e.g., engendering SWB). Rather, emotion-focused PPIs are those that develop people's ability to *work with* their emotions, i.e., emotional management skills. There are PPIs designed to cultivate particular attitudinal qualities, such as loving-kindness meditation to promote compassion (Fredrickson et al. 2008), or



**Fig. 2** The layered integrated framework example (LIFE) model

Japanese Naikan therapy to engender gratitude (Chan 2010). More comprehensive emotion-focused interventions also exist. For instance, Mayer and Salovey's (1997) hierarchical model of EI comprises four branches: emotional awareness, generation, understanding, and management. Accordingly, PPIs have been developed which target all four branches (e.g., Crombie et al. 2011). Moving up to the cognitive level, appreciation of the relevance of discursive thoughts to wellbeing has generated cognitively-focused PPIs. Some involve recalling and describing positive events in discursive prose, including activities based around journaling (e.g., the gratitude journal; Emmons and McCullough 2003) and writing about positive memories (Burton and King 2004). Other interventions include narrative restructuring exercises, where people reflect on ostensibly negative experiences and develop meaningful narratives around these. For example, Garland et al. (2007) created a 6-week intervention for cancer sufferers: through journaling and creative arts (e.g., writing, drawing), participants engaged in narrative self-exploration, which fostered PTG. Located here too are innovative therapies using PP in the context of the treatment of mental health issues, such as wellbeing therapy (Fava and Ruini 2013).

Stepping up to the level of conscious awareness, the exemplar PPI in this regard is mindfulness. Following Kabat-Zinn's (1982) pioneering mindfulness-based stress reduction (MBSR) programme, interest in mindfulness has exploded, with over 500 studies in 2012 alone (Shonin et al. 2013). The MBSR protocol has led to a proliferation of adaptations, ranging from mindfulness-based cognitive therapy, designed to prevent depressive

relapse (Teasdale et al. 2000), to novel treatments such as smoking cessation ('surfing the urge'; Bowen and Marlatt 2009). Finally, we might note that meditation is also associated with the kind of advanced developmental skills and states of consciousness that we are tentatively referring to here as 'awareness+' (Wilber 1997). Awareness+ also serves as a helpful overarching term for practices that might otherwise be referred to as 'spiritual.' Spirituality is a contested concept. Some conceptualisations explicitly bind it to numinous experiences; the *Encyclopaedia of Religion and Society* defines it as the 'quality of an individual whose inner life is oriented toward God, the supernatural, or the sacred' (Yamane 1998, p. 492). Less contentiously perhaps (from a metaphysical perspective), 'intrinsic origin' definitions depict spirituality simply as an 'inner search for meaning and fulfilment' (Graber 2001, p. 40). Inclusion of spirituality in the LIFE model is in keeping with Wilber's (1997) Integral Theory; Wilber himself was influenced by spiritual philosophers, particularly the Integral Yoga of Sri Aurobindo [1970 (1939–1940)]. Thus, under the rubric of awareness+ we can locate the various practices people worldwide have created to help them access a sense of spirituality. Most cultures have developed spiritual practices, usually in the context of specific religious traditions. For instance, in Sufi Islam, 'Sama' involves 'reverently listening to music and/or the singing of mystical poetry' (Lewisohn 1997, p. 3). In future, PP could draw on such practices in creating new PPIs. An example in this respect is Mardiyono et al. (2011), who discuss using Islamic 'relaxation techniques,' incorporating prayer and recitation of the Qur'an, in the context of nursing practice.

Turning to the body/brain domain, hierarchical stratification of levels here is perhaps easier to envisage: biochemical molecules and atoms (e.g., sodium ions) form neurons; neurons combine in neural networks; such networks are part of the larger nervous system; and the nervous system is one aspect of the whole body. (Reinforcing the point about our stratification being just one 'example,' one could easily identify other viable hierarchies, perhaps featuring more gradations or highlighting other elements.) In terms of APP, we can examine the influence of each level on wellbeing, and moreover, design interventions to act on that level. For example, at the biochemical level, mental illness can be conceptualised in terms of the activity of neurotransmitters like serotonin; interventions here aim to alter biochemical 'imbalances,' as with selective serotonin reuptake inhibitor (SSRI) treatments (Ferguson 2001). Such interventions are presently limited to medical disciplines like psychiatry, used in the treatment of psychopathology. However, research has pointed to the potential positive impact on wellbeing of psychoactive drugs such as MDMA (Adamson and Metzner 1988). It is conceivable that clinicians will in future harness such substances to pro-actively promote wellbeing; for example, Sessa (2007, p. 220) argues that psychiatrists could explore 'MDMA-assisted psychotherapy' as an adjunct to more conventional treatments.

Moving up levels, we can explore the impact of neural networks on wellbeing. These networks refer to the way mental activities are produced by the interaction of distributed brain areas, assessed by paradigms such as electroencephalography (EEG). As per the NCC approach, EEG analysis connects wellbeing to patterns of neural activity, such as greater left-sided hemispheric activation (Davidson 2000). Moreover, from an APP perspective, such patterns can be promoted by interventions like neurofeedback; for instance, Gruzeliier et al. (2013) used neurofeedback with children to enhance music creativity and general wellbeing. Neurofeedback activities can be situated within a larger framework of biofeedback, which targets the nervous system more generally. For example, Kleen and Reitsma (2011) developed a promising intervention that combined heart rate variability (HRV) biofeedback training (reduced HRV is associated with outcomes like anxiety) with

mindfulness. In terms of the body as a whole, scholars have begun to explore the complex intersections between physical health/illness and SWB and PWB (Hefferon 2013). From an APP perspective, PPIs focusing on the body include exercise (Hefferon and Mutrie 2012) and dance therapy (Puig et al. 2006).

Finally, we turn to the collective domains of the LIFE model—the intersubjective and interobjective realms. Incorporating these domains into PP can help address one of the most prominent criticisms levelled against the field, namely that it pays insufficient attention to the social dimensions of wellbeing. Critical theorists such as Becker and Marecek (2008) argue that conceptualisations of wellbeing in PP reflect a culturally-specific version of the good life, building upon a North American tradition of expressive individualism, where happiness is framed as a private concern, achieved through self-determined choices. Although social institutions are one of Peterson's (2006) 'three pillars' of personal fulfilment, there has been little analysis within PP of structural factors that might affect a person's ability to flourish, like educational and economic opportunities (Prilleltensky and Prilleltensky 2005). As such, learning from such critics, PP can develop a more comprehensive approach to wellbeing by taking the collective domains into account. In the LIFE model, we have stratified these domains using Bronfenbrenner's (1977) influential experimental ecology, which identifies various socio-cultural 'levels' ranging in scale from micro to macro. This model can be used for both collective domains, as it straddles the two quadrants: one can analyse all levels from either an intersubjective (e.g., shared values) or an interobjective perspective (e.g., structural aspects of that level). However, we have omitted the first level of Bronfenbrenner's model—the individual person themselves (e.g., their cognitive processes)—from these collective domains, since in our LIFE model, Bronfenbrenner's first level has been massively expanded, constituting in effect the entire subjective and objective domains. Thus, in terms of the intersubjective and interobjective domains, we begin the stratification at the second tier of Bronfenbrenner's model, the 'microsystem.' We shall consider these levels in turn, highlighting examples of PPIs that pertain to each level.

The micro-system is the immediate social setting of the person, e.g., their family or workplace. To reinforce the point about Bronfenbrenner's model straddling both collective domains, we can approach these settings from an intersubjective (e.g., a family's shared values) and/or an interobjective perspective (e.g., their material circumstances). When PP has taken social dimensions into account, it has usually been limited to this level. In PP, the importance of the micro-system is recognised in studies highlighting the powerful association between relationships and wellbeing; indeed, according to Helliwell and Putnam's (2004) analysis of the World Values Survey, close relationships such as marriage are the *most* important contextual determinant of wellbeing. More broadly, a wealth of studies attest to the importance to wellbeing of friendship and good relationships with others generally (Umberson and Montez 2010). From an APP perspective, one approach to the micro-system involves enhancing the quality of relationships. We have already touched upon some relevant PPIs above; for example, practices to promote pro-social emotions, like loving-kindness meditation, can enhance relational connectedness (Fredrickson et al. 2008). (The fact that many PPIs have positive outcomes across multiple domains serves to reinforce the point that the four domains—of both the LIFE model and Wilber's Integral Framework—intersect and reciprocally influence each other. Moreover, multiple-domain outcomes are also indicative of the potency of a PPI, i.e., its ability to positively impact upon manifold aspects of a person's life.) There are also more comprehensive PPIs aimed at enhancing relationships. Kauffman and Silberman (2009) highlight the use of PP in couple's therapy. For instance, they suggest that 'growth-fostering relationships' can be

engendered by teaching people effective communication strategies, like responding positively to good news, so-called 'active-constructive responding' (Gable et al. 2004). Such PPIs aimed at enhancing relationships are transferable to other micro-systems: active-constructive communication is promoted in positive organizational scholarship as an effective leadership strategy, for example (Avolio et al. 1999). Alternatively, from an interobjective perspective, APP might involve improving the material environment of the micro-setting, e.g., enhancing its aesthetics. Gesler's (1992) work on therapeutic landscapes has emphasised the twin beneficial effects of pleasing environments: rewarding to appreciate *and* create. For example, natural light and greenery are conducive to emotional wellbeing, which is why gardens are often incorporated into healthcare settings (Marcus and Barnes 1999). Moreover, *creating* such environments in itself constitutes a PPI: gardening is a therapeutic activity, a potent combination of 'achievement, satisfaction, and aesthetic pleasure' (Milligan et al. 2004, p. 1781), and also social bonding if done collectively.

Next, the broader network of the meso-system refers to the *interaction* between micro-systems. This level recognises that people 'exist in inter-locking contexts' which together affect functioning (Sheridan et al. 2004, p. 7). Indeed, Prilleltensky et al. (2001, p. 151) argue that 'clinical and community interventions are inseparable.' Unfortunately though, Prilleltensky et al. suggest the meso-system perspective is often overlooked in psychology: 'we typically psychologize children's problems and ignore the social and political context in which their problems occur' (p. 157). However, researchers are beginning to appreciate the importance of taking a meso-system approach to wellbeing and general psychological development. Meso-level PPIs involve working with clients across diverse settings. For example, Sheridan et al. argue that, for children, their two primary micro-systems are home and school, which have a 'bidirectional, reciprocal influence over each other' (p. 11). As such, Sheridan et al. have formulated a child-focused meso-system intervention—'family-centred positive psychology' (FCPP)—which establishes partnerships between families and schools through a process of 'conjoint behavioural consultation.' Parents and teachers, together with an FCPP 'consultant,' engage in a structured problem-solving process, spanning home and school, to address the 'academic, social, or behavioural needs' of a child who is troubled in some way (p. 10). Another successful meso-system intervention is the 'Families and Schools Together' (FAST) programme (McDonald et al. 1997), a multifamily school-centred intervention, designed to build protective factors for children (e.g., enhancing bonds with parents), which has been endorsed by Save the Children in the UK and the United Nations Office on Drugs and Crime.

Scaling up still further, the 'exo-system' refers to structures that 'encompass the immediate settings,' such as the wider community in which micro-systems are situated (Bronfenbrenner 1977, p. 515). Community factors have a significant impact upon wellbeing. Burke et al. (2009) identified 120 factors, aggregated into six main categories, which were a blend of interobjective and intersubjective elements: necessary human and social services; neighbourhood support (i.e., social capital); green areas and natural environment; social make-up of people (e.g., age-diversity); neighbourhood affordability; and an absence of negative community factors (e.g., noise). From an APP perspective, any action to enhance any of these factors could be deemed a PPI, since this would have the effect of improving the neighbourhood, thereby enhancing the wellbeing of people within it. This could be done in a top down way, i.e., local authorities designing neighbourhoods according to wellbeing principles. For example, open communal spaces where people can safely interact serve to enhance the collective wellbeing of a community, particularly if these incorporate greenery, as per the concept of therapeutic landscapes (Chiesura 2004).

Improvements can also be enacted in a 'bottom-up' way by communities themselves. For instance, Mongkolkeha (2005) outlines a community-based waste management initiative in Thailand. This not only addressed the interobjective factor of waste disposal, it engendered intersubjective benefits like 'community empowerment through self-reliance' (p. 27). Less functionally, but still powerfully, community arts initiatives—such as decorating public spaces—not only improve the aesthetics of the neighbourhood, but promote social capital and individual wellbeing (Dunphy 2009). More comprehensive interventions have also been attempted. For example, in the UK, the Well London project was devised to improve health behaviours among marginalised communities in deprived areas of the city (Wall et al. 2009). This was a non-prescriptive collaborative project, working *with* local communities to identify and meet their needs; as such, the particular projects used with each community varied. Among the successful projects were 'Healthy Spaces' (improving public spaces to encourage physical activity) and 'Be Creative Be Well' (communal creative arts to promote social capital).

The most expansive of Bronfenbrenner's (1977, p. 515) levels is the macro-system—'overarching institutional patterns ... such as the economic, social, educational, legal, and political systems' of which the other levels are 'concrete manifestations.' Exemplar macro-level analyses include the World Bank's assessment of the 'quality of governance' worldwide, examining over 200 countries across six dimensions (Kaufmann et al. 1999): voice and accountability; stability; effectiveness; regulatory framework; rule of law; and control of corruption. These dimensions can impact upon wellbeing; e.g., there is a negative correlation between civil rights violations and country-level SWB (Diener et al. 1995). As summarised by Duncan (2010, p. 165), the happiest communities are not necessarily the wealthiest, but those who enjoy 'effective social and political institutions.' In terms of APP, interventions at a macro level involve shaping public policy according to wellbeing considerations (Evans 2011). Indeed, recent UN-commissioned analyses of global happiness levels have led to just these kinds of wellbeing-focused structural recommendations (Helliwell et al. 2013). The pioneering example of wellbeing as a policy driver is Bhutan, which in 1972 replaced GDP as their gauge of societal progress with gross national happiness (GNH) (Braun 2009). Crucially, from an APP perspective, GNH is not simply measured, but is reportedly used by the government to inform policy decisions, with all proposed policies systematically evaluated according to GNH considerations.

Although Bhutan is ahead of other nations in this regard, the idea of policy being informed by wellbeing considerations has been gathering strength for some years in other countries. For example, in the UK, Huppert and Baylis (2004) argued that policies could be enacted to help counter stereotypes and attitudes that were detrimental to people's wellbeing, such as making occupational age-related discrimination illegal. Such arguments were heeded, as the Age Discrimination Act was enacted into law in the UK in 2006. Moreover, recent years have seen more systematic top-down efforts to consider the policy implications of wellbeing. In the UK, the Office for National Statistics (ONS) began in 2011 to include SWB items within its annual Integrated Household Survey, disseminated to 200,000 people, thus generating a National Well-being index (ONS 2011). Moreover, the Prime Minister David Cameron announced in 2010 that this index would help guide governmental decisions, and consequently established an internal policy unit—the Behavioural Insights Team, often referred to as the 'nudge unit'—geared towards this end (Bache and Reardon 2013). This unit has helped develop policies based on Thaler and Sunstein's (2003) concept of 'libertarian paternalism.' These policies are designed to encourage people to make healthy choices, crucially though, without coercion, but by arranging the 'choice architecture' in ways that makes the 'right' (i.e., healthy) choice

more likely (e.g., by making it the *default* option). Other macro-system PP initiatives pertain to economic factors. For example, Haque (2011) has called for a 'positive economic paradigm' that is not only concerned with profit maximisation, but with fulfilling 'human potential.'

Finally, we have taken the liberty of 'adding' another level to Bronfenbrenner's original model, namely the global ecosystem. The biosphere encompasses all the other systems, being the physical matrix that supports their very existence. This level matters to PP because, in an existential sense, human wellbeing is *ultimately* dependent upon planetary wellbeing (Smith et al. 2013): concerns about flourishing are fundamentally subservient to the survival of humankind, since one must be alive in order to flourish. This recognition is reflected in attempts to take ecological variables into account, like societal sustainability, when calculating macro-levels of wellbeing (New Economics Foundation 2013). Moreover, this level falls within the purview of APP since environmental wellbeing depends to an extent on human behaviour. As such, we can devise PPIs that might impact positively on the environment, intervening at any of the levels of Bronfenbrenner's model to encourage more sustainable behaviours. At a micro-system level, sustainable energy consumption can be promoted through smart meters that provide households with feedback about their energy expenditure (Fischer 2008). From a meso-system perspective, energy consumption used commuting *between* micro-systems might be reduced, perhaps through interventions to encourage 'active commuting,' like walking/cycling (Yang et al. 2010). Exo-system PPIs could include efforts to promote recycling: in intersubjective terms, this may involve attempting to make it a cultural norm or a valued pro-social behaviour (Hopper and Nielsen 1991); in interobjective terms, this means enhancing the provision of recycling services (Read 1999). At a macro-system level, PP could play a role in advocating for regulatory solutions, such as national and international commitments to environmental sustainability (Spash 2010), by advancing a wellbeing policy agenda.

#### 4 Conclusion

The LIFE model presented here offers a comprehensive multidimensional approach to wellbeing. It identifies different dimensions of relevance to PP, including subjective mind, objective body/brain, intersubjective culture and interobjective society. Moreover, it stratifies these domains into various levels, introducing further nuance and complexity into the model. The LIFE model represents the potential terrain for APP, which we define here as the science and practice of improving wellbeing; we can intervene across all these dimensions, targeting all of their levels, to actively promote wellbeing. As emphasised throughout, our LIFE model is but one possible multidimensional model, and one way of stratifying these dimensions. As such, the model is not intended as a final word on the kind of multidimensional framework that can drive PP forward. Rather, this paper is just the beginning of a broader conversation in PP about the value of, and need for, a multidimensional approach to wellbeing.

#### References

- Adamson, S., & Metzner, R. (1988). The nature of the MDMA experience and its role in healing, psychotherapy and spiritual practice. *ReVision*, 10, 59–72.

- Aristotle. [2000 (350 BCE)]. In R. Crisp (Ed.), *Nicomachean ethics*. Cambridge: Cambridge University Press.
- Aurobindo, S. [1970 (published serially 1914–19; revised first edition published 1939–40)]. *The life divine* (5th edn.). Pondicherry, India: Sri Aurobindo Ashram Trust.
- Avolio, B. J., Bass, B. M., & Jung, D. I. (1999). Re-examining the components of transformational and transactional leadership using the Multifactor Leadership. *Journal of Occupational and Organizational Psychology*, 72(4), 441–462.
- Bache, I., & Reardon, L. (2013). An idea whose time has come? Explaining the rise of well-being in British politics. *Political Studies*, 61(4), 898–914.
- Bakan, D. (1966). *The duality of human existence*. Chicago: Rand McNally.
- Barratt, B. B. (2009). *The emergence of somatic psychology and bodymind therapy*. London: Palgrave MacMillan.
- Becker, D., & Marecek, J. (2008). Dreaming the American dream: Individualism and positive psychology. *Social and Personality Psychology Compass*, 2(5), 1767–1780.
- Bourdieu, P. (1986). The forms of capital. In J. G. Richardson (Ed.), *Handbook of theory and research for the sociology of education* (pp. 241–258). New York: Greenwood.
- Bowen, S., & Marlatt, A. (2009). Surfing the urge: Brief mindfulness-based intervention for college student smokers. *Psychology of Addictive Behaviors*, 23(4), 666–671.
- Braun, A. A. (2009). *Gross national happiness in Bhutan: A living example of an alternative approach to progress*. (Bachelor's Thesis), Philadelphia, PA: University of Pennsylvania.
- Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American Psychologist*, 32(7), 513–531.
- Burke, J., O'Campo, P., Salmon, C., & Walker, R. (2009). Pathways connecting neighborhood influences and mental well-being: Socioeconomic position and gender differences. *Social Science and Medicine*, 68(7), 1294–1304.
- Burton, C. M., & King, L. A. (2004). The health benefits of writing about intensely positive experiences. *Journal of Research in Personality*, 38(2), 150–163.
- Cameron, K. S., Dutton, J. E., & Quinn, R. E. (2003). Foundations of positive organizational scholarship. In K. S. Cameron, J. E. Dutton, & R. E. Quinn (Eds.), *Positive organizational scholarship: Foundations of a new discipline* (pp. 3–13). San Francisco: Berrett-Koehler.
- Chalmers, D. J. (2004). How can we construct a science of consciousness? In M. Gazzaniga (Ed.), *The cognitive neurosciences*. Cambridge, MA: MIT Press.
- Chan, D. W. (2010). Gratitude, gratitude intervention and subjective well-being among Chinese school teachers in Hong Kong. *Educational Psychology*, 30(2), 139–153.
- Chiesura, A. (2004). The role of urban parks for the sustainable city. *Landscape and Urban Planning*, 68(1), 129–138.
- Crombie, D., Lombard, C., & Noakes, T. (2011). Increasing emotional intelligence in cricketers: An intervention study. *International Journal of Sports Science and Coaching*, 6(1), 69–86.
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York: Harper Perennial.
- Davidson, R. J. (2000). Affective style, psychopathology, and resilience: Brain mechanisms and plasticity. *American Psychologist*, 55(11), 1196–1214.
- Diener, E., Diener, M., & Diener, C. (1995). Factors predicting the subjective Wellbeing of nations. *Journal of Personality and Social Psychology*, 69(5), 851–864.
- Duncan, G. (2010). Should happiness-maximization be the goal of government? *Journal of Happiness Studies*, 11(2), 163–178.
- Dunphy, K. F. (2009). *Developing and revitalizing rural communities through arts and creativity: Australia*. Vancouver, BC: Centre for Policy Studies on Culture and Communities, Simon Fraser University.
- Emmons, R. A., & McCullough, M. E. (2003). Counting blessings versus burdens: An experimental investigation of gratitude and subjective well-being in daily life. *Journal of Personality and Social Psychology*, 84(2), 377.
- Engel, G. L. (1977). The need for a new medical model: A challenge for biomedicine. *Science*, 196(4286), 129–136.
- Esbjörn-Hargens, S. (2010). Integral theory in service of enacting integral education. In S. Esbjörn-Hargens, J. Reams, & O. Gunnlaugson (Eds.), *Integral education: New directions for higher learning* (pp. 57–78). Albany: State University of New York Press.
- Evans, J. (2011). Our leaders are all Aristotelians now. *Public Policy Research*, 17(4), 214–221.
- Fava, G. A., & Ruini, C. (2013). Well-being therapy: Theoretical background, clinical implications, and future directions. In S. A. David, I. Boniwell, & A. C. Ayers (Eds.), *The Oxford handbook of happiness*. Oxford: Oxford University Press.

- Fell, J. (2004). Identifying neural correlates of consciousness: The state space approach. *Consciousness and Cognition*, 13(4), 709–729.
- Ferguson, J. M. (2001). SSRI antidepressant medications: Adverse effects and tolerability. *Journal of Clinical Psychiatry*, 3(1), 22–27.
- Fincham, F. D., & Beach, S. R. (2010). Of memes and marriage: Toward a positive relationship science. *Journal of Family Theory & Review*, 2(1), 4–24.
- Fischer, C. (2008). Feedback on household electricity consumption: A tool for saving energy? *Energy Efficiency*, 1(1), 79–104.
- Flett, G. L., Vredenburg, K., & Krames, L. (1997). The continuity of depression in clinical and nonclinical samples. *Psychological Bulletin*, 121(3), 395–416.
- Foster, W. (1986). A critical perspective on administration and organization in education. In K. A. Sirotnik & J. Oakes (Eds.), *Critical perspectives on the organization and improvement of schooling* (pp. 95–129). Netherlands: Springer.
- Fowler, R. D., Seligman, M. E. P., & Koocher, G. P. (1999). The APA 1998 annual report. *American Psychologist*, 54(8), 537–568.
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *The American Psychologist*, 56(3), 218–226.
- Fredrickson, B. L., Cohn, M. A., Coffey, K. A., Pek, J., & Finkel, S. M. (2008). Open hearts build lives: Positive emotions, induced through loving-kindness meditation, build consequential personal resources. *Journal of Personality and Social Psychology*, 95(5), 1045–1062.
- Gable, S. L., Reis, H. T., Impett, E. A., & Asher, E. R. (2004). What do you do when things go right? The intrapersonal and interpersonal benefits of sharing positive events. *Journal of Personality and Social Psychology*, 87(2), 228–245.
- Garland, S. N., Carlson, L. E., Cook, S., Lansdell, L., & Specia, M. (2007). A non-randomized comparison of mindfulness-based stress reduction and healing arts programs for facilitating post-traumatic growth and spirituality in cancer outpatients. *Supportive Care in Cancer*, 15(8), 949–961.
- Gesler, W. M. (1992). Therapeutic landscapes: Medical issues in light of the new cultural geography. *Social Science and Medicine*, 34(7), 735–746.
- Graber, D. R. (2001). Spirituality and healthcare organizations. *Journal of Healthcare Management*, 46(1), 39–50.
- Gruzeliy, J. H., Foks, M., Steffert, T., Chen, M. J. L., & Ros, T. (2013). Beneficial outcome from EEG-neurofeedback on creative music performance, attention and well-being in school children. *Biological Psychology*, 95, 86–95.
- Hanlon, P., Carlisle, S., Reilly, D., Lyon, A., & Hannah, M. (2010). Enabling well-being in a time of radical change: Integrative public health for the 21st century. *Public Health*, 124(6), 305–312.
- Haque, U. (2011). *Beterness: Economics for humans*. Cambridge: Harvard Business Press.
- Hefferon, K. (2013). *Positive psychology and the body: The psychosomatic side to flourishing*. Berkshire: Open University Press.
- Hefferon, K., Grealy, M., & Mutrie, N. (2010). Transforming from cocoon to butterfly: The potential role of the body in the process of posttraumatic growth. *Journal of Humanistic Psychology*, 50(2), 224–247.
- Hefferon, K., & Mutrie, N. (2012). Physical activity as a “stellar” positive psychology intervention. In E. O. Acevedo (Ed.), *The Oxford handbook of exercise psychology* (pp. 117–130). New York: Oxford University Press.
- Helliwell, J., Layard, R., & Sachs, J. (Eds.). (2013). *World happiness report 2013*. Geneva: United Nations.
- Helliwell, J. F., & Putnam, R. D. (2004). The social context of well-being. *Philosophical Transactions of the Royal Society of London. Series B, Biological sciences*, 359(1449), 1435–1446.
- Hopper, J. R., & Nielsen, J. M. (1991). Recycling as altruistic behavior: Normative and behavioral strategies to expand participation in a community recycling program. *Environment and Behavior*, 23(2), 195–220.
- Huppert, F. A., & Baylis, N. (2004). Well-being: Towards an integration of psychology, neurobiology and social science. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 359, 1447–1451.
- Jahoda, M. (1958). *Current concepts of positive mental health*. New York: Basic Books.
- Josipovic, Z. (2010). Duality and nonduality in meditation research. *Consciousness and Cognition*, 19(4), 1119–1121.
- Kabat-Zinn, J. (1982). An outpatient program in behavioral medicine for chronic pain patients based on the practice of mindfulness meditation: Theoretical considerations and preliminary results. *General Hospital Psychiatry*, 4(1), 33–47.
- Kauffman, C., & Silberman, J. (2009). Finding and fostering the positive in relationships: Positive interventions in couples therapy. *Journal of Clinical Psychology*, 65(5), 520–531.

- Kaufmann, D., Kraay, A., & Zoido-Lobato, P. (1999). *Aggregating governance indicators*. World Bank Policy Research Working Paper No. 2195. Washington, DC.
- Kleen, M., & Reitsma, B. (2011). Appliance of heart rate variability biofeedback in acceptance and commitment therapy: A pilot study. *Journal of Neurotherapy, 15*(2), 170–181.
- Koenig, H. G. (2009). Research on religion, spirituality, and mental health: A review. *Canadian Journal of Psychiatry, 54*(5), 283–291.
- Kuhn, T. S. (1970). *The structure of scientific revolutions* (2nd ed.). Chicago: University of Chicago press.
- Larson, J. S. (1999). The conceptualization of health. *Medical Care Research and Review, 56*(2), 123–136.
- Layard, R. (2005). *Happiness: Lessons from a new science*. London: Penguin.
- Layder, D. (1998). *Sociological practice: Linking theory and social research*. London: Sage.
- Lazarus, R. S. (2003). Does the positive psychology movement have legs? *Psychological Inquiry, 14*(2), 93–109.
- Lewisohn, L. (1997). The sacred music of Islam: Samā' in the Persian Sufi tradition. *British Journal of Ethnomusicology, 6*(1), 1–33.
- Lomas, T. (2013). Critical positive masculinity. *Masculinities and Social Change, 2*(2), 167–193.
- MacLean, P. D. (1990). *The triune brain in evolution: Role in paleocerebral functions*. New York: Springer.
- Marcus, C. C., & Barnes, M. (1999). *Healing gardens: Therapeutic benefits and design recommendations*. Canada: Wiley.
- Mardiyono, M., Songwathana, P., & Petchichian, W. (2011). Spirituality intervention and outcomes: Corner stone of holistic nursing practice. *Nurse Media Journal of Nursing, 1*(1), 117–127.
- Martikainen, P., Bartley, M., & Lahelma, E. (2002). Psychosocial determinants of health in social epidemiology. *International Journal of Epidemiology, 31*(6), 1091–1093.
- Marx, K. [1978(1845)]. Theses on Feuerbach: Thesis 11. In R. C. Tucker (Ed.), *The Marx-Engels reader* (2nd edn.). New York: W. W. Norton.
- Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist, 56*, 227–239.
- Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. J. Sluyter (Eds.), *Emotional development and emotional intelligence* (pp. 3–31). New York: Basic Books.
- McDonald, L., Billingham, S., Conrad, T., Morgan, A., Nancy, O., & Payton, E. (1997). Families and schools together (FAST): Integrating community development with clinical strategies. *Families in Society: The Journal of Contemporary Social Services, 78*(2), 140–155.
- McNulty, J. K. (2011). The dark side of forgiveness: The tendency to forgive predicts continued psychological and physical aggression in marriage. *Personality and Social Psychology Bulletin, 37*(6), 770–783.
- Milligan, C., Gatrell, A., & Bingley, A. (2004). 'Cultivating health': Therapeutic landscapes and older people in northern England. *Social Science and Medicine, 58*, 1781–1793.
- Mongkolchaiarunya, J. (2005). Promoting a community-based solid-waste management initiative in local government: Yala municipality, Thailand. *Habitat International, 29*(1), 27–40.
- Nagel, T. (1989). *The view from nowhere*. Oxford: Oxford University Press.
- New Economics Foundation. (2013). *Happy planet index*. <http://www.happyplanetindex.org/>.
- Office for National Statistics. (2011). *Initial investigation into subjective well-being from the opinions survey*. London: Office for National Statistics.
- Parks, A. C., & Biswas-Diener, R. (2014). Positive interventions: Past, present and future. In T. Kashdan & J. Ciarrochi (Eds.), *Mindfulness, acceptance, and positive psychology: The seven foundations of well-being* (pp. 140–165). Oakland, CA: New Harbinger.
- Peterson, C. (2006). *A primer in positive psychology*. New York: Oxford University Press.
- Peterson, C., & Vaidya, R. S. (2003). Optimism as virtue and vice. In E. C. Chang & L. J. Sanna (Eds.), *Virtue, vice, and personality: The complexity of behaviour* (pp. 23–27). Washington, DC: American Psychological Association.
- Piaget, J. (1971). *The theory of stages in cognitive development*. New York: McGraw Hill.
- Prilleltensky, I., Nelson, G., & Peirson, L. (2001). The role of power and control in children's lives: An ecological analysis of pathways toward wellness, resilience and problems. *Journal of Community & Applied Social Psychology, 11*(2), 143–158.
- Prilleltensky, I., & Prilleltensky, O. (2005). Beyond resilience: Blending wellness and liberation in the helping professions. In M. Ungar (Ed.), *Handbook for working with children and youth* (pp. 89–103). Thousand Oaks, CA: Sage.
- Puig, A., Lee, S. M., Goodwin, L., & Sherrard, P. A. (2006). The efficacy of creative arts therapies to enhance emotional expression, spirituality, and psychological well-being of newly diagnosed Stage I and Stage II breast cancer patients: A preliminary study. *The Arts in Psychotherapy, 33*(3), 218–228.
- Read, A. D. (1999). "A weekly doorstep recycling collection, I had no idea we could!": Overcoming the local barriers to participation. *Resources, Conservation and Recycling, 26*(3–4), 217–249.

- Resnick, S., Warmoth, A., & Serlin, I. A. (2001). The humanistic psychology and positive psychology connection: Implications for psychotherapy. *Journal of Humanistic Psychology, 41*(1), 73–101.
- Rusk, R. D., & Waters, L. E. (2013). Tracing the size, reach, impact, and breadth of positive psychology. *The Journal of Positive Psychology, 8*(3), 207–221.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology, 57*(6), 1069–1081.
- Ryff, C. D., & Singer, B. (2003). Ironies of the human condition. Well-being and health on the way to mortality. In L. G. Aspinwall & U. M. Staudinger (Eds.), *A psychology of human strengths* (pp. 271–287). Washington, DC: American Psychological Association.
- Seligman, M. E. P. (2002). *Authentic happiness*. New York: Free Press.
- Seligman, M. E. P. (2008). Positive health. *Applied Psychology, 57*, 3–18.
- Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology. In J. E. Gillham (Ed.), *The science of optimism and hope: Research essays in honor of Martin EP Seligman* (pp. 415–429). Pennsylvania: Templeton Foundation Press.
- Seligman, M. E. P., Ernst, R. M., Gillham, J., Reivich, K., & Linkins, M. (2009). Positive education: Positive psychology and classroom interventions. *Oxford Review of Education, 35*(3), 293–311.
- Seligman, M. E. P., Rashid, T., & Parks, A. C. (2006). Positive psychotherapy. *American Psychologist, 61*(8), 774–788.
- Sessa, B. (2007). Is there a case for MDMA-assisted psychotherapy in the UK? *Journal of Psychopharmacology, 21*(2), 220–224.
- Sheridan, S. M., Warnes, E. D., Cowan, R. J., Schemm, A. V., & Clarke, B. L. (2004). Family-centered positive psychology: Focusing on strengths to build student success. *Psychology in the Schools, 41*(1), 7–17.
- Shonin, E., Van Gordon, W., & Griffiths, M. D. (2013). Mindfulness-based interventions: Towards mindful clinical integration. *Frontiers in Psychology, 4*(194). doi:10.3389/fpsyg.2013.00194.
- Smith, L. M., Case, J. L., Smith, H. M., Harwell, L. C., & Summers, J. K. (2013). Relating ecosystem services to domains of human well-being: Foundation for a US index. *Ecological Indicators, 28*, 79–90.
- Smith, W. P., Compton, W. C., & West, B. W. (1995). Meditation as an adjunct to a happiness enhancement program. *Journal of Clinical Psychology, 51*(2), 269–273.
- Spash, C. L. (2010). The brave new world of carbon trading. *New Political Economy, 15*(2), 169–195.
- Teasdale, J. D., Segal, Z. V., Williams, J. M. G., Ridgeway, V. A., Soulsby, J. M., & Lau, M. A. (2000). Prevention of relapse/recurrence in major depression by mindfulness-based cognitive therapy. *Journal of Consulting and Clinical Psychology, 68*(4), 615–623.
- Thaler, R. H., & Sunstein, C. R. (2003). Libertarian paternalism. *The American Economic Review, 93*(2), 175–179.
- Umberson, D., & Montez, J. K. (2010). Social relationships and health. *Journal of Health and Social Behavior, 51*(1), 54–66.
- United Nations. (2013). *Human development report 2013. The rise of the south: Human progress in a diverse world*. New York: United Nations Development Programme.
- Urry, H. L., Nitschke, J. B., Dolski, I., Jackson, D. C., Dalton, K. M., Mueller, C. J., et al. (2004). Making a life worth living: Neural correlates of well-being. *Psychological Science, 15*(6), 367–372.
- Van Boven, L. (2005). Experientialism, materialism, and the pursuit of happiness. *Review of General Psychology, 9*(2), 132–142.
- Wall, M., Hayes, R., Moore, D., Petticrew, M., Clow, A., Schmidt, E., et al. (2009). Evaluation of community level interventions to address social and structural determinants of health: A cluster randomised controlled trial. *BMC Public Health, 9*(1), 207.
- Wilber, K. (1995). *Sex, ecology, spirituality: The spirit of evolution*. Boston: Shambhala.
- Wilber, K. (1997). An integral theory of consciousness. *Journal of Consciousness Studies, 4*(1), 71–92.
- Wong, P. T. P. (2011). Positive psychology 2.0: Towards a balanced interactive model of the good life. *Canadian Psychology/Psychologie Canadienne, 52*(2), 69–81.
- Wood, A. M., & Tarrier, N. (2010). Positive clinical psychology: A new vision and strategy for integrated research and practice. *Clinical Psychology Review, 30*(7), 819–829.
- World Health Organization. (1948). In *Preamble to the constitution of the World Health Organization as adopted by the international health conference*, New York, 19–22 June, 1946. World Health Organization.
- Yamane, D. (1998). Spirituality. In W. E. Swatos Jr (Ed.), *Encyclopaedia of religion and society* (p. 492). Walnut Creek, CA: Altamira.
- Yang, L., Sahlqvist, S., McMinn, A., Griffin, S. J., & Ogilvie, D. (2010). Interventions to promote cycling: Systematic review. *British Medical Journal, 341*, c5293.