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The creative-being model: the role of negative emotion in creative flourishing and the impact on positive education

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ABSTRACT

In a volatile and ever-changing world, creativity and wellbeing are essential for learners to flourish. With lagging educational models and siloed thinking and practice surrounding wellbeing and creativity, a new model of creativity and wellbeing is needed. *Creative-Being* is offered as a dualistic systemic model that is grounded in a Systems Informed Positive Education perspective, encompassing negative emotion as a mechanism to promote both creativity and wellbeing, or creative flourishing. Designed to equip learners, *Creative-Being* offers fresh insights into the positive transforming power of negative emotion in the creative process, providing an important step forward in furthering positive education.

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Creative-being; creativity; flourishing; positive education; negative emotions; systems informed positive psychology; wellbeing

Introduction

Positive creative achievements are often born of negative emotions: a song inspired from heartbreak, an artwork created amidst frustration, a new idea after anguished failures. German composer Ludwig van Beethoven, for instance, wrote despairingly about his increasing deafness:


What humiliation when any one beside me heard a flute in the far distance, while I heard *nothing*, or when others heard *a shepherd singing*, and I still heard *nothing!* Such things brought me to the verge of desperation, and well nigh caused me to put an end to my life (Beethoven & Wallace, n.d., p. 42)

Yet during this torturous period, Beethoven creatively flourished. He reflected that creativity kept him alive, bringing joy to his silence (Drake, 1994). We suggest that while negative emotion is often the close companion to remarkable creativity, that flourishing and wellbeing result from the interaction of negative emotion and creative impulse. Building on this insight, we propose *Creative-Being*: a model of creative flourishing that describes both creativity and wellbeing in learners, highlighting the need for a dualistic model of creativity and wellbeing that encompasses the presence of negative emotion. We begin with a rationale for the new model for twenty-first century learners, then outline the frameworks and theories underpinning the model. We describe the model, then provide implications for positive education.

Twenty-first century learners: the importance of wellbeing and creativity

With our world described as volatile and unpredictable (Tan, 2015), negative emotion is an unavoidable reality, and creativity is a necessity. The Organisation for Economic Co-operation and Development (OECD, 2018) argued that creativity is essential for 21st century learners and formal education should nurture creativity to enable success. Rapid advances in artificial intelligence have shifted employment skills, emphasising innovation and flexible thinking (Amabile, 1997), which relate to creativity (OECD, 2018). As a complex phenomenon enabling economics, technology, and science, creativity refers to the manufacturing of novel and useful ideas or problem solutions (Amabile, 1983, Weisberg 1988). Creativity equips us to facilitate and cope with rapid change (Plucker, Beghetto, & Dow, 2004), and therefore is essential for learners to flourish.

Wellbeing is also essential for learners, with the United Nations (2019) identifying wellbeing as a prioritised goal. A multi-dimensional construct, wellbeing has multiple elements and definitions (Oades & Mossman, 2017), with no consensus on a single definition or even spelling (Kern et al., 2020). The term wellbeing has been used interchangeably with positive mental health (World Health Organization, 2001), happiness (Forgeard et al., 2011), and flourishing (Seligman, 2011). It is sometimes referred to as Psychological Wellbeing (Ryff, 1989, Ryff & Keyes, 1995) or Subjective

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Wellbeing (Deci & Ryan, 2008). From a hedonic perspective, wellbeing encompasses the attainment of pleasure and the avoidance of pain (hedonic wellbeing) (Ryan & Deci, 2001). From a eudaimonic perspective, wellbeing represents the life well lived (Gale et al. 2013). For the purpose of the Creative-Being model, the eudaemonic wellbeing definition will be used due to its focus on meaning and its alignment with creativity research. Studies indicate creativity and eudaemonic wellbeing are related, with creativity promoting healthy psychological functioning, effective coping, loving relationships, meaning, and problem-solving (Livingston 1999, Lomas, 2016b, Terr, 1992). Creativity not only *promotes* wellbeing (Torrance, 1981), but is also *promoted by* wellbeing, such that a bi-directional relationship between the two exists (Huppert & So, 2013).

Lagging educational models

Education experts argue that most 21st century students are being educated by twentieth century teaching practices, in nineteenth century educational institutions (Schleicher, 2018). Standardised testing and grade-based assessment are frequent indicators of achievement (Kern & Wehmeyer, 2021). Some thrive within such practices, yet many languish. Student disengagement, mental health issues (Australian Institute of Health and Welfare, 2021), and teacher burnout (Thomson, 2020) indicate current educational practices are insufficient. Indeed, Robinson (2006) suggests educational practices are *killing* creativity – the very quality required for success in a twenty-first century world.

Positive education addresses some of these issues yet is not always effective. Despite positive psychology *research* evolving to encompass a systems perspective (Kern & Wehmeyer, 2021), positive education *practice* is lagging. Many schools incorporate curricula, programs, and interventions without consideration of complex dynamic school environments (Allison et al., 2020, Kern & Taylor, 2021). Educational experts argue that contemporary education ‘must focus on nurturing the whole child’ (National Institute of Education, 2017, p. 2), yet positive education is often limited by irrelevance to rapidly changing systemic environments encompassing personality, personal history, and socio-cultural context (Kern & Taylor, 2021). Adopting a holistic systems perspective towards positive education *and* creativity, therefore, is both timely and necessary.

A systems perspective

Systems are collections of living or nonliving things with different components interacting to create a coherent

whole (Meadows, 2008). Systems are connected simultaneously using inputs, processes, outputs with distinct boundaries, and feedback loops with system outputs returning as inputs. Systems informed positive psychology assumes that humans inter-dependently co-exist with themselves, others, and the environment in which they exist (Kern et al. 2020). Systems informed positive education (SIPE) acknowledges complexity, inter-relatedness, and the dynamic nature of the individual, school environment, society, and the world within which it is all embedded (Kern & Taylor, 2021). A systems perspective is relevant for our global climate, enabling a holistic picture of self, school, society, and the world. If we are to equip learners to thrive in our world, embedding a systems perspective into education and creativity is essential (Senge et al., 2012).

Creativity theory and the role of negative emotion

Creativity theory initially focused on individuals. Later theories highlighted creativity’s role in human development and personality, identifying different levels of individual creativity (Guilford, 1950). Kaufman and Beghetto (2009) built on this layered perspective, arguing that genius level creativity cannot exist without everyday creativity, which suggests creative growth can be cultivated in everyone rather than existing within a gifted few. Such theories bring understanding to the creative process yet are restricted to an individual’s cognitive processes.

Creativity is dynamic and systemic (Csikszentmihalyi, 2008). For example, Amabile’s (1983, 1996) Componential Model of Creativity illustrates the social influences on creative behaviour, integrating cognitive, personality, emotional, motivational, and social environmental domains (Amabile et al., 2005). Positive mood improves performance elements of creativity (Estrada et al., 1994, Isen, 1999, Isen & Daubman, 1984, Isen, Daubman, & Nowicki, 1987), and positive emotions broaden the scope of attention and cognition (Fredrickson, 1998, 2001), increasing one’s propensity for creativity.

Such research indicates that creativity and positive emotions are interrelated, yet some theorists further highlight the role of negative emotion in creativity. Negative emotions are unpleasant feelings and are linked to mood disorders (Kashdan & Biswas-Diener, 2015). Yet negative emotion can also be positively transformative, intrinsically motivating personal change (Lomas, 2016a). Connections between emotion and creativity are complex, systemic, and dynamic. For example, Martin’ et al. (1993) mood-as-input model suggests positive or negative emotion may influence motivation

and persistence during creative tasks. Amabile (1988, 1996) supports Martin et al.'s research, whereas Jamison (1989) posits that *changes* from negative to positive emotion promote creativity. Such findings indicate negative emotions may play an important and often overlooked role in creativity.

The need for a new way of thinking about wellbeing and creativity

There is a parallel need for a systems perspective of education and a new way of thinking about wellbeing and creativity. Creativity research has traditionally centered around individuals and predominantly focused on positive emotion. While popular creativity systems models acknowledge the influence of social systems and emotion (e.g. Amabile et al., 2005, Csikszentmihalyi, 2014), limitations include focusing on the person and process rather than upon the outcomes of creativity (Spiel & Von Korff, 1998). Creativity research indicates inter-relatedness between creativity and wellbeing (Livingston, 1999, Lomas, 2016b), yet existing models ignore wellbeing and creativity interactions, including potential systemic feedback (Kuo, 2011). Wellbeing frameworks are often limited by the decontextualisation of wellbeing from human and social systems (Kern et al., 2020). Yet bi-directional creativity and wellbeing are essential for future

learners, with a dynamic global climate dominated by complex negative human experiences a pervading contextual reality. The third wave of positive psychology embraces such complexity (Lomas, et al., 2020). This recent evolution of positive psychology scholarship involves looking beyond the individual to examine the complex systems in which people exist. New holistic and systemic ways of thinking about wellbeing and creativity align with this third wave evolution. We suggest, therefore, that a new SIPE model acknowledging the inter-relatedness of creativity, wellbeing, and negative emotion may be beneficial in effectively equipping contemporary learners.

Concepts underpinning the creative-being model

As illustrated in Figure 1, Creative-Being is underpinned by four intersecting domains: systems perspectives in education, creativity, negative emotion, and wellbeing.

Systems perspective in education

Creative-Being is viewed through a holistic SIPE lens, which encourages us to embrace *simplicity*, where simple learning systems exist within complex school environments (Kern & Taylor, 2021). Creative-Being holistically embraces the complexity and interactions of human systems, cognitive, and emotional processes,

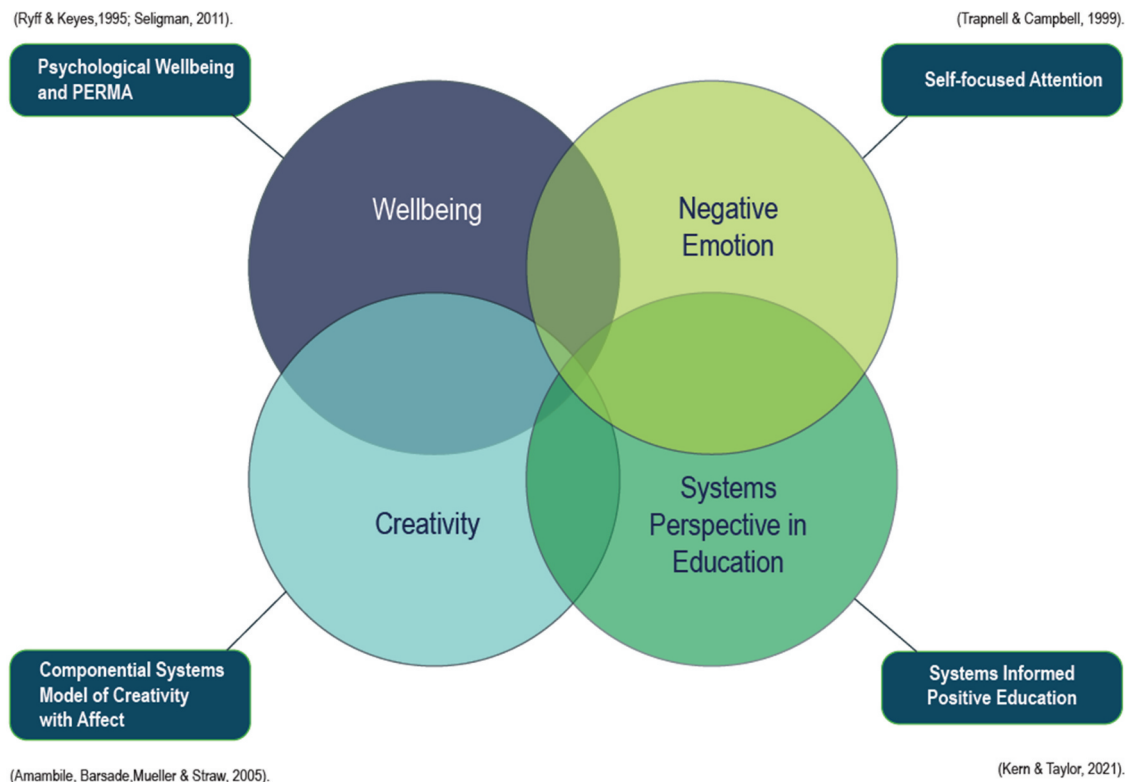


Figure 1. Domains underpinning the Creative-Being model.

which is necessary for real-world relevant learning (Goleman & Senge, 2014). A systems perspective prioritises real-world relevance, providing ‘the combination of social, emotional, and systemic understanding that offers the fullest preparation of students for life’s challenges’ (Goleman & Senge, 2014, p. 2). For example, learning surrounding creativity and wellbeing becomes process-driven rather than content-driven. Challenges of embedding SIPE include the complexity of a diverse number of stakeholders, including policymakers, parents, and teachers (Goleman & Senge, 2014). SIPE approaches, such as Creative-Being, are a step in the direction towards holistic real-world relevant future learning.

Creativity

Creative-Being builds upon the revised Componential Model of Creativity (Amabile, 1996, Amabile et al., 2005, Amabile & Pillemer, 2012). The Componential Model includes domain-relevant skills (e.g. talent, skill, expertise), creativity-relevant processes (e.g. personality traits such as persistence and curiosity), intrinsic motivation (internal motivation for tasks), affect (positive and negative emotion), and social context (e.g. the microsystem of the classroom) (Amabile & Pillemer, 2012). This model assumes components combine in a generative manner, with all components present if creativity is to be the result (Amabile & Pillemer, 2012). Within Creative-Being, domain-relevant skills and internal motivation components appear respectively through mechanisms within the wellbeing (accomplishment and engagement) and negative emotion domains (self-reflective rumination).

Field research has focused on organisations, but Amabile et al. (2005) indicate that the model is a catalyst for broader applications. Qualitative analysis indicated some participants first experienced task-based frustration with creativity tasks, followed by positive emotions. Amabile et al. posit that the negative emotion of frustration could promote creative output and creative problem solving. The outcome of positive emotion in their results highlights the relationship between wellbeing and creativity, with others finding similar results (Du et al., 2021, Frijda, 1993, George & Zhou, 2002, Lazarus & Cohen-Charash, 2001). The Componential Model’s holistic and systemic nature, therefore, provides a relevant foundation for Creative-Being to build upon.

Wellbeing

Two wellbeing frameworks underpin Creative-Being: Ryff and Keyes’ (1995) psychological wellbeing (PWB) and Seligman’s (2011) PERMA (positive emotions,

engagement, relationships, meaning, and accomplishment). Research indicates that creativity promotes a sense of meaning, personal growth, life satisfaction, and positive relationships (Livingston, 1999, Lomas, 2016b, Terr, 1992, Torrance, 1981), aligning with the PWB components (environmental mastery, personal growth, self-acceptance, positive relationships, autonomy, purpose in life). Jayawickreme et al. (2012), in their Engine of Wellbeing, identify PWB an input into a larger system. Rusk’ et al. (2017) research indicates that PWB may also be a *process*. Yet PWB fails to indicate the *output* of voluntary behaviours characteristic of wellbeing, which PERMA does (Rusk, Vella-Brodrick, & Waters, 2017). Therefore, both *PWB* and *PERMA* underpin Creative-Being due to their specific characteristics and mechanisms.

Negative emotion

As described above, negative emotion plays an important and often overlooked role in creativity. Similarly, negative emotion has become increasingly recognised as playing a role in wellbeing and PP scholarship. A consistent criticism of PP is that it has disregarded the existence and advantages of negative emotions and experiences within the wellbeing construct. However, over the past decade, a shift or second wave occurred within the PP movement that brought negative emotion to the forefront (Wong, 2011). Rather than seeing negative emotions as the enemy to wellbeing, the second wave of positive psychology (PP 2.0) aimed to highlight the essential tension and balance between positive and negative (Lomas & Ivztan, 2016, Wong, 2011). PP 2.0 (Wong, 2011) supports the inclusion of the negative emotion domain within the Creative-Being model, as well as the following underpinning mechanisms that enable the processing of negative emotions.

Self-focused Attention (SFA) (Ingram, 1990) ‘represents the capacity of becoming the object of one’s own attention, where one actively identifies, processes, and stores information about the self’ (Morin, 2011, p. 807), and underpins the negative emotion domain of Creative-Being. Trapnell and Campbell (1999) sub-categorise SFA as reflection and rumination, with different characteristics having different connections to creativity (Verhaeghen et al., 2005, 2014). Reflection has several stages: awareness of negative emotions or thoughts, critical analysis, and the evolution of a new perspective (Atkins & Murphy, 1993). Reflection includes gaining distance from negative emotions to enable perspective, and building momentum or initiating progress (Morin, 2011). Even if negative emotions are the catalyst, the mechanism of reflection involves

deep thinking, enabling moving from a state of negative emotion to a desired positive state (Verhaeghen et al., 2005). Therefore, reflection is positively associated with problem solving, wellbeing, healthy psychological functioning, and intrinsic motivation (Takano & Tanno, 2009). In contrast, rumination is circular consisting of 'anxious attention paid to the self' (Morin, 2011, p. 809), involving repetitive thinking around loss and failure, and is associated with low self-worth (Takano & Tanno, 2009), anxiety, and depression (Verhaeghen et al., 2014).

While both mechanisms involve deep thinking and recognition of a desired goal, the effects differ. Rumination tends to be maladaptive, limiting individuals from adapting to different situations, whereas reflection is more adaptive, generating insight and motivation (Takano & Tanno, 2009). Such paradoxical qualities of self-reflective rumination highlight possible limitations; however, an acceptance of dualism aligns with a systems perspective. This dualistic nature of self-reflective rumination enhances creativity. Rumination without reflection may mean limited progression towards creativity (Verhaeghen et al., 2014). It is this dualism that appears to create a balancing pattern, where rumination and self-reflection dance together to enable creativity.

Creative-being

Building upon the four domains described above, Creative-Being (Figure 2) offers a holistic model of

creativity and wellbeing. Creative-Being was born in the classroom. The first author, a creative-arts educator, singer-songwriter, entertainer, and wellbeing specialist, observed many experiencing negative emotions within a creative task. Through decades of reflection, analysis, and mentoring educators and artists, the Creative-Being model has evolved. Reflecting on her own creative journey, the first author acknowledges that many personal experiences with creative flourishing are born from negative emotion. For example, one of her most successful songs was written in the midst of deep grief over the death of her mother. Additionally, numerous students the first author taught often struggled in multiple classes displaying deviant behaviour, high levels of anxiety, low levels of learning engagement, and task refusal. Yet over time, these students often produced high-quality creative outputs, significant positive behaviour, and attitudinal changes within her creative education classroom. These behavioural and attitudinal changes even at times appeared to be an output that overflowed into other areas of learning. The need to articulate the process of how creativity appeared to have connections to wellbeing, often occurring even when negative emotions were present, developed from here. The second and third authors assisted in refining the Creative-Being model and its articulation during the first author's Masters of Positive Psychology capstone project at the University of Melbourne.

While Creative-being's origins lie in the creative-arts classroom, the desired output of the model is the

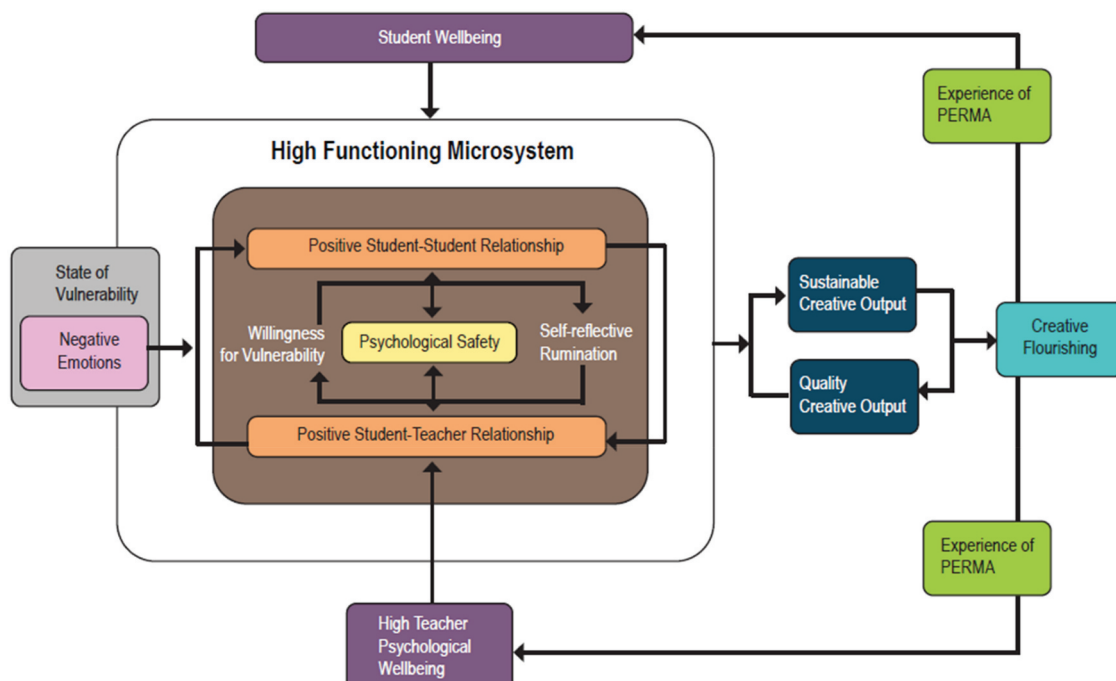


Figure 2. The creative-being model.

dualistic construct of creative flourishing within any curriculum area and developmental stage. Creative flourishing is recognised as creative output within a specific culture that is of *sustainable and high quantity*, which promotes wellbeing. Creative-Being is designed to promote both wellbeing and creativity in future learners and acknowledges the reality of negative emotion as an input within the environment. Elements within this dynamic system interact and connect, relying on these interactions to fulfill its purpose.

System inputs

The model begins with three inputs: vulnerability, negative emotions, and student and teacher wellbeing.

The state of vulnerability. Brown (2013) suggests vulnerability is the birthplace of creativity. Vulnerability (Grey in Figure 2) co-exists with emotions, and is defined as ‘uncertainty, risk, and emotional exposure’ (Brown, 2013, p. 44). For example, a student who experiences fear regarding a problem-solving task is vulnerable. They may have thoughts such as ‘what if I get it wrong?’ Being vulnerable is frightening for people who fear rejection. Some may argue that promoting emotional vulnerability puts students at risk of experiencing exploitation, discrimination, or even abuse (Fineman, 2017). However, vulnerability is where risk-taking happens, and creativity and problem solving begins (Brown, 2013). A state of vulnerability is a necessary *co-existing* input with negative emotions within Creative-Being.

Negative emotion. Despite its unpleasant quality, negative emotion (pink in Figure 2) has the potential to positively influence task motivation and increase persistence in problem solving and task completion (Martin et al., 1993, Schwarz, 1990). For example, a student may have a negative experience during lunchtime, causing anxiety. When they enter the classroom, this emotion is an *input* into the learning environment (Martin et al., 1993). Studies illuminate negative emotion’s relationship with creativity and self-reflective rumination. For example, a study of Chinese college students found correlations between the psychological impact of the COVID-19 pandemic and creativity (Du et al., 2021); the more participants were negatively affected by events surrounding COVID-19, the higher they scored on creativity. Negative emotions may promote creativity through enhanced perseverance (Baas et al., 2008). Self-reflective rumination also interacts with negative emotions, with several studies indicating an interrelationship amongst loss, fear of failure, and rumination (Trapnell & Campbell, 1999, Verhaeghen et al., 2005,

2014). Some positive education practices encourage students to avoid negative emotions (White, 2016), yet studies indicate that learning can be enhanced by negative emotion (Rowe & Fitness, 2018).

Student and teacher wellbeing. Wellbeing (Purple in Figure 2) is an input that interacts with relationships and psychological safety. First, high teacher PWB as an input is strongly connected to teaching practice, which impacts learning outcomes (Turner & Thielking, 2019). This connection is evident through PWB’s element of positive relationships (Wanless, 2016). High teacher PWB prioritises positive relationships, providing a sense of belonging and trust (Liu et al., 2021, Turner & Thielking, 2019), fostering risk-taking with learning. In practice, high teacher wellbeing is indicated by quality time with students, calm teacher responses, positive student relationships, and increased student performance (Turner & Thielking 2019).

Student PWB is an additional input. A range of socio-ecological factors interact with student wellbeing, including teacher-student relationships (Cornelius-White, 2007), student-student relationships, and a sense of safety, trust, belonging, and connectedness (Allen et al., 2016). As positive education practice frequently fails to acknowledge the influence of the complex school environment and collective wellbeing (Allison et al., 2020), *individual* PWB may be problematic. However, individual PWB is an input into a complex system that acknowledges continuous interaction with contextual elements, as indicated by cyclical arrows. These dynamic interactions between individual wellbeing, positive relationships, and psychological safety are part of the enabling process of both individual and collective creative flourishing, and a high functioning microsystem.

System processes

Four system processes occur within the Creative-Being model: willingness to be vulnerable, self-reflective rumination, psychological safety and positive relationships, and a high functioning microsystem.

A willingness to be vulnerable. Research indicates vulnerability is the core of meaningful human experiences (Brown, 2013), yet it is frequently avoided. If a student is *willing and motivated* to be vulnerable with fear or frustration, negative emotions are often antecedents to self-reflection and problem solving (Takano & Tanno, 2009). It is not a static state, but dynamic (Brown, 2013), and is key to Creative-Being mechanisms by influencing task motivation, via dynamic cyclical interactions with self-

reflective rumination and psychological safety (Amabile, et al., 2005). While society sends implicit messages that a willingness to be vulnerable is a sign of weakness, Brown (2018, p. 13) argues that students 'deserve one place where they can rumble with vulnerability and their hearts can exhale'. An environment where mistake making is embraced will promote such willingness. The classroom microsystem, therefore, ideally can enable students to process negative emotions in an environment of psychological safety within the creative process.

Self-reflective rumination. Self-reflective rumination (Brown in Figure 2) is inter-related to creativity and negative emotion, interacting with a willingness to be vulnerable. The willingness to explore negative emotion enables self-reflective rumination, promoting powerful reflective thought processes and motivating perseverance, which increases creative output (Baas et al., 2008, Kaufman & Baer, 2002, Verhaeghen et al., 2005). In one study, participants experienced both positive and negative emotion during a creative task, with negative emotions often associated with fear of failing (Amabile et al., 2005). Similarly, Smith and Alloy (2009) argue that the cyclical process of rumination involves repetitive thoughts containing themes of failure. The cycle between self-reflective rumination and willingness to be vulnerable within Creative-Being aligns with the cyclical nature of rumination.

It may be risky to emphasise rumination, considering links to depression (Verhaeghen et al., 2014). However, when co-existing with self-reflection, rumination may increase creativity and wellbeing (Harrington & Loffredo, 2011). Negative emotions are a valuable part of being human, and can be positively transformative (Lomas, 2016b). Self-reflective rumination may enable this positive transformative process through the adaptive nature of reflection. Emphasising the dualistic process of reflection and rumination is therefore key to promoting creative behaviour. For example, a student experiencing a fear of failure, if willing to be vulnerable through rumination and reflection, may become more motivated to move forward through the creative process. Ryan (2009) supports this, suggesting that both desire and motivation are required for change to happen, and self-reflection enables progress.

Psychological safety and positive relationships. Psychological safety (Yellow in Figure 2) is central to the vulnerability and self-reflective rumination cycle. Psychological safety is the 'shared belief that the team is safe for interpersonal risk taking' (Edmondson, 1999, p. 54). Within the classroom microsystem, psychological

safety promotes an environment where self-reflective rumination can safely occur, thus promoting creative output. Positive relationships within the microsystem provide psychological safety through greater emotional carrying capacity (Dutton & Heaphy, 2003), buffering against negative spiraling of emotion from rumination (Verhaeghen et al., 2014). For example, a teacher may create a safe classroom where mistakes are acceptable, expressing anxieties is encouraged, and collaborative problem solving are the norm. The greater the capacity for the relationship to carry the full spectrum of emotions, the greater the psychological safety, with individuals recognising that negative emotions can be appropriately expressed without shame and rejection (Dutton & Heaphy, 2003). This dynamic relationship between psychological safety and positive relationships is an essential part of the self-reflective/vulnerability cycle in the Creative-Being process.

High functioning microsystem. An individual's immediate microsystem influences both the creative process (Amabile et al., 2005, Csikszentmihalyi, 2014) and wellbeing (Lomas et al, 2020, Kern et al. 2020). Bronfenbrenner's (1979) ecological systems model highlights how the intra-personal, environmental, behavioural, and political domains of the school environment impact both educators and learners. According to this theory, a classroom is a dynamic, non-linear human social microsystem in constant interaction (Allison et al., 2020). Microsystems exist in many institutions with varying levels of functioning. Bosworth and Judkins (2014) suggest that high functioning classroom microsystems are characterized by a safe and caring climate, inclusive of all members. Furthermore, studies indicate that the functionality of a student's microsystem influences performance (Campos-Gil et al., 2020, Maxwell, 2010, 2016).

The microsystem (White in Figure 2) interacts with other elements, including psychological safety, positive relationships, self-reflective rumination, creative flourishing, and teacher/student wellbeing. Psychological safety through positive relationships prevents potential negative spiraling from rumination (Verhaeghen et al., 2014). For example, a teacher may establish collaboration groups to brainstorm ideas, creating a space for dialogue during problem solving and feedback during the creative process. Psychological safety promotes a safe climate within which risk taking can take place (Higgins et al., 2020), linking with vulnerability, negative emotions, and self-reflective rumination processes. A high functioning microsystem, therefore, contains essential elements that interact to promote creative flourishing.

System outputs and feedback loops

There are two system outputs, with corresponding feedback loops: Creative flourishing and PERMA.

Creative flourishing. Csikszentmihalyi (2014) argued that creativity needs to be contextualized within the culture and seen as valuable within that context. Creativity is therefore the output of interactions between creators and their audiences. For example, what is creatively valuable in one microsystem may vary in another, as microsystems are influenced by broader perspectives including political, social, and environmental influences (Bronfenbrenner, 1979). Creative flourishing (light blue in Figure 2) encompasses this phenomenon; it is creative output of high quality and sustainable quantity within the classroom microsystem context.

Flourishing, however, is the state created when we foster PERMA through the creativity processes including vulnerability, positive relationships, and self-reflective rumination within a psychological safe environment. These dynamic and interactive processes ultimately increase our positive emotions, engage us in learning, illuminate positive relationships, provide an opportunity for meaning, and achieve goals through applying strengths and talents in completing a creative task. Hence, this dualistic creative process that encompasses both creativity and wellbeing is encompassed within the construct of creative flourishing.

Perma. PERMA (Light green in Figure 2) emphasises behaviours characteristic of wellbeing as an endpoint (Rusk et al., 2017). PERMA is more than an endpoint; it feeds back as an input into the environmental context of the individuals. Universal evidence supports this bio-directionality, with studies highlighting a reciprocal relationship between creativity and wellbeing (Tan, et al., 2021). Another study found creative tasks promoted wellbeing (Vougioukalou et al., 2019). Studies indicate that higher states of wellbeing indicated by positive emotion and life satisfaction promote creativity, providing further indication that wellbeing plays a constructive role in creativity.

Discussion

The Creative-Being model offers a 21st century way of thinking about wellbeing and creativity. Designed to equip educators to enable creativity and wellbeing for learners, the empirically informed model is real-

world relevant. The question is not whether creativity and wellbeing should be taught in schools, but what is the most relevant way of equipping students in creativity and wellbeing? As societies around the world emerge from the COVID-19 pandemic where individual and community innovation, health, and wellbeing have been under great duress, prioritising wellbeing and creativity in education seems crucial. Creative-Being has the potential to inform the narrative of shifting educational priorities, from siloed linear perspectives to dynamic holistic systems thinking and learning.

Practical implications

Creative-Being has implications for building on future SIPE research, as well as implications for Positive Education applications. A first implication is that the Creative-Being model challenges current educational models with its systems perspective, by providing an opportunity for a shift to occur in the role of the teacher, from expert in knowledge to facilitator of cognitive and emotional system processes. While learning environments applying a SIPE approach to learning, such as Newmark Primary School (Newmark Primary Schools, 2021) in Victoria, do exist, they are few and far between (Kern & Taylor, 2021). Thus, Creative Being extends existing systems-informed approaches to everyday learning environments.

In a classroom where Creative-Being is applied, teachers facilitate an environment that builds positive connections between students where emotional vulnerability within an emotionally safe environment is the norm. Learners feel safe to fail and safe to make mistakes because they are positively connected to their peers and teachers. The students feel willing to be vulnerable when attempting new tasks, expressing curiosity, and sharing new ideas. Teachers enable the self-reflective rumination process and model it in their everyday interactions with students. Here, teachers prioritise their own wellbeing, understanding the influence it has in the environment in which the learner co-exists with them.

Secondly, the application of the model is not content driven, but rather emphasises the process and mechanisms of wellbeing and creativity, regardless of curriculum area. This is a critical shift, from a siloed subject based approach to creativity and wellbeing, to an integrated and holistic approach. While future learners are the focus of the model, its systemic nature also highlights the role of educators in the

process. Thus, this model enables not only future learners, but also future educators promoting classroom practice that aligns with SIPE research. While Creative-Being may play only a small role in this shift, it is an important one, especially if learning is to be real-world relevant for our current global climate.

Limitations and future directions

Negative spiraling from rumination remains an ethical risk, despite the protective mechanisms of psychological safety and self-reflection within the model. The effectiveness of self-reflective rumination and psychological safety relies on the skill and wellbeing of the educator. With each educator bringing their own experience, understanding, and perspectives of wellbeing and creativity, the risk of poor implementation is real. Harm could be done though the implementation of the model to the very ones it is designed to equip.

Creative-Being thus requires training to minimise risk, requiring large scale prioritisation of creativity, wellbeing, and understanding of negative emotion. This approach involves building understanding and shifting misconceptions around these three interactive constructs (Lomas & Ivztan, 2016). White (2016) highlights the hurdles to ensuring longevity and success of training and implementation in positive education, including prioritising funding, the perception that wellbeing (and creativity) is a marginal topic, maverick providers implementing sub-standard training, and that wellbeing is not central to successful educational governance. Creative-Being requires the systemic co-prioritisation of wellbeing and creativity, yet these appear absent from the agendas of policymakers at the systems level (Weare & Nind, 2014, White, 2013, 2014). Despite Australian curriculum prioritisation (Australian Curriculum, Assessment and Reporting Authority, 2017), creativity is neglected in practice, funding, and constrained by misconceptions (Benedeck et al., 2021).

Creative-Being, when applied in different cultural contexts, may operate differently, with a variety of moderating factors that need to be considered. Socio-economic status may moderate different elements in the model, for instance some students experiencing higher levels of negative emotion in some districts versus others, or varying levels of psychological safety occurring in the classroom environment. Occupation might also moderate the model. For example, changing the cultural context to the Police Force or the Army where high frequency of trauma is commonplace may mean the level of negative emotion as an input into the micro-system may be more extreme

than that which occurs in a classroom. This would then influence the elements of vulnerability within the model and the level of psychological safety required to promote creative flourishing. Furthermore, some workplace cultures may have high levels of psychological safety already existing, whereas others may greatly lack. Other environmental factors could also influence the effectiveness of the model, with some organisations being influenced by global elements such as COVID-19 and the financial crisis more than others. These elements could impact the levels of wellbeing as inputs into the model, the nature of psychological safety within a micro-system and the level of vulnerability willing to be experienced. Thus, depending upon the environment in which the model is applied, greater focus on specific elements may be necessary to adjust for different vulnerabilities within the system.

Implementing a grassroots systemic creativity-wellbeing model within our standard current educational environments could be challenging (Davis, 2017). SIPE is an emerging area, with the embracing of complexity a potential barrier. Many schools continue embedding linear compartmentalised wellbeing educational models and siloed thinking around learning (Kern & Taylor, 2021) despite school environmental complexity. Embedding a holistic systems model may encounter resistance, misunderstanding, or poor implementation. Models like Creative-Being, however, provide frameworks to build upon.

Yet Creative-Being also presents ways forward. Future studies testing the model and possible pilot programs may provide means for evaluating model feasibility across cultural contexts and evaluating moderating factors. Testing this model in different sectors other than education will provide further clarification of its validity and reliability. Additionally, further research of the model's application in different education systems across the globe would also be beneficial. Such research contributes to PP by acknowledging the cultural complexities within both the constructs of wellbeing and creativity, building on existing research around the importance of cultural contextualisation within the field (Joshanloo & Weijers 2014, Pedrotti et al., 2009, Wong, 2011).

Creative-Being potentially contributes to emerging SIPE research by building on *simplicity* (Kern & Taylor, 2021, Kluger, 2008). Creative-Being is not a single quick fix addressing wellbeing or creativity within a particular curriculum area, but rather a model whose systemic nature transcends the boundaries of subjects or developmental stages. It is complex because human systems are complex. Yet it has simple outcomes: creativity and

wellbeing. Its systemic integrated nature aligns with 21st century learning across complex integrated domains. Many wellbeing models focus on wellbeing alone. Creative-Being includes multiple aspects of wellbeing and creative outputs for both individuals and the collective microsystem. Thus, Creative-Being is an important step forward for positive education.

Creative-Being may also contribute to creativity research by adding wellbeing and negative emotions into the systemic understanding of creativity. While creativity research has touched on negative emotions, no models acknowledge its potential positive transforming power to this degree. Creative-Being also builds on an existing systems model of creativity (Amabile et al., 2005). By explicitly integrating wellbeing and negative emotions within the systemic creative process it offers new pathways for creative systems thinking.

Conclusion

Creative-Being is a dynamic systems model designed to mutually support both creativity and wellbeing for learners. The model reflects the complexity of the school environment and human systems, yet its outcomes are simple: wellbeing and creativity. It is designed to equip learners to navigate and thrive in a complex world. Perhaps this model unleashes the possibility for Beethoven's story of creative flourishing to be the story of every learner. Creative-Being is, therefore, a small yet decisive step in shifting positive education towards the future.

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