E

Emotional Intelligence and the Sustainable Development Goals: Supporting Peaceful, Just, and Inclusive Societies

Christine Wamsler[1] and Fernando Restoy[2]
[1]Lund University Centre for Sustainability Studies (LUCSUS), Lund, Sweden
[2]Emotional Intelligence Coach and Educator, Madrid, Spain

Definitions

Emotional intelligence (EI) refers to the ability to identify and manage one's own emotions, as well as the emotions of others (Goleman 1995). The concept comprises four personal and interpersonal capacities or skills: (1) Self-awareness is the capacity to tune into one's emotions and feelings and recognize how they influence us and others, i.e., our thoughts, bodily sensations, actions, and interactions at any given moment. This domain is the keystone of EI. (2) Self-management includes self-regulation and motivation. Self-regulation is the ability to keep disruptive emotions and associated automatic reactions in check before acting, allowing the construction of trusting environments, resilience, and effectiveness, even under stressful or hostile conditions. Motivation concerns the drive to pursue goals with persistence, not for external rewards but through intrinsic drive. (3) Social awareness is the ability to sense the emotions and perspectives of other individuals and groups (empathy) and understand associated patterns, such as power relationships. (4) Relationship management (also called social skills) is the capacity to build social relationships, develop networks and common ground, inspire others, and jointly accomplish goals, while efficiently managing conflicts. The fourth capacity is also considered an outcome of the others. The concept of emotional intelligence – sometimes also referred to as emotional quotient (EQ), emotional intelligence quotient (EIQ), or emotional leadership (EL) – has gained wide acceptance in fields such as psychology, education, health, and business management, and approaches to develop, support, and measure the associated cognitive/emotional and relational capacities have been applied and tested over the past 20 years in various contexts (Boyatzis et al. 2000; Mayer et al. 2002).

Introduction

In September 2015, 193 countries agreed to a set of Sustainable Development Goals (SDGs) targeted at ending poverty, protecting the planet, and ensuring prosperity for all by 2030. These 17 SDGs, part of the so-called Agenda 2030, came into effect on 1 January 2016. They form a global roadmap that all countries are expected to take ownership of and to incorporate into their

national development agendas and associated actions (UN 2016).

SDG 16, which is a cornerstone of Agenda 2030, commits governments "to promote peaceful, inclusive societies for sustainable development, to provide access to justice for all and to build effective, accountable and inclusive institutions at all levels" (UN 2016). It can, thus, be seen as a cross-cutting goal, meaning that it is both an end and a means to achieve all other SDGs. Accordingly, Agenda 2030 recognizes that peaceful and inclusive societies are both outcomes and enablers of sustainable development.

While sustainability scholarship, education, and practice have, so far, mainly focused on addressing the external world of wider socioeconomic structures, ecosystems, technology, and governance dynamics, SDG 16 cannot be achieved by "business as usual" approaches to catalyze the necessary change. The latter requires a broader cultural change. Over the past two decades, sustainability scholarship, education, and practice have led to substantial analytical advancements, new knowledge, and approaches, but they have not yet catalyzed the necessary change to address today's increasingly complex challenges (Wals and Corcoran 2012). One reason for this situation is the fact that they have, so far, mainly only focused on the external world. At the same time, a second aspect of reality has been vastly neglected: individuals and their inner dimensions (Wamsler et al. 2018; Ives et al. 2020). As expressed by Senge et al. (2004):

> The changes in which we will be called upon to participate in the future will be both deeply personal and inherently systemic. Yet the deeper dimensions of transformational change represent a largely unexplored territory ... this blindspot concerns not the what and how - not what leaders do and how they do it - but the who: who we are and the inner place or source from which we operate, both individually and collectively.

To address this gap, the concept of the inner or personal (sphere of) transformation has recently attracted growing attention (Wamsler et al. 2018; Wamsler 2020; O'Brien 2018). Inner transformation, as used here, describes changes related to people's mindsets, which are made up of their values, beliefs, worldviews, and associated cognitive/emotional and relational capacities, and thus involve change in people's consciousness. They lie at the root of many sustainability challenges; they can be important leverage points for change and are thus fundamental to achieving Global Goals (Abson et al. 2017; Meadows 1999). Accordingly, approaches that address people's mindsets and associated capacities are important to support sustainability transformation.

Against this background, this chapter provides an overview of the linkages between EI and the SDGs, particularly SDG 16. More specifically, it describes how EI can enable skills that are key for supporting transformation towards sustainability, including conflict resolution, peace building, and developing inclusive and just societies and institutions.

This chapter is based on a review of the literature identified via scholarly databases, and a recent United Nations (UN) event on EI and the SDGs, titled "Unlocking Your Emotions to Achieve the SDGs," which took place on 17 May, 2019 at the UN Headquarters in New York (UNAI 2019). It was organized by the United Nations Academic Impact, an initiative that aligns higher education institutions with the UN to support, and contribute to, the realization of UN goals and mandates, including the promotion and protection of human rights, access to education, sustainability, and conflict resolution. The event brought together key players in the field, including scholars and practitioners who have developed and/or applied the EI concept in the context of sustainable development.

Background and Foundations

The academic discourse on EI first appeared early in the twentieth century, notably publications from the psychiatrist and psychoanalyst Carl Jung, who suggested that some people use a "feeling function" to understand the world (Jung 1921: 425). The term "emotional intelligence" first appeared in 1964/1966 (Davitz and Beldoch 1964; Leuner 1966) and related scholarship developed over the following decades.

In 1983, Howard Gardner's book *Frames of Mind: The Theory of Multiple Intelligences* (Gardner 1983) introduced the idea that traditional types of intelligence, such as Intelligence Quotient (IQ), fail to fully explain cognitive ability. He went on to develop the idea of multiple intelligences, which include both interpersonal intelligence (the capacity to understand the intentions, motivations and desires of other people) and intrapersonal intelligence (the capacity to understand oneself, and to appreciate one's feelings, fears and motivations), which are today encompassed in the EI concept. The term EI subsequently appeared again in a doctoral thesis in 1985, titled *A Study of Emotion: Developing Emotional Intelligence* (Payne 1983/1986).

In 1989, Stanley Greenspan, Professor of Psychiatry, Behavioral Science, and Pediatrics at George Washington University Medical School, put forward a model to describe EI. This was followed by a second paper by Peter Salovey, a social psychologist and current president of Yale University, and John Mayer, Professor at the University of New Hampshire, which was published in the following year (Salovey and Mayer 1990: 185). In the years that followed, psychologist Daniel Goleman extended the concept and, in 1995, published his book *Emotional Intelligence. Why it can Matter more than IQ* (Goleman 1995). Later, along with a colleague, Richard Boyatzis, he refined the concept in the context of leadership development (Goleman and Boyatzis 2017).

The EI concept synthesizes and integrates years of research and findings in psychology, psychiatry and social neuroscience. It relates to the understanding that everything about us – our values, beliefs, worldviews and, ultimately, our emotional and behavioral patterns – come from our genetics, experiences, and the environment (Eisler and Levine 2002). What we are taught and experience as a child and as an adult shapes how our brain grows and develops, creating neuropaths that make up our mindset. Unpleasant past experiences can, for instance, create a set of feelings and thoughts that are generally outside of our conscious awareness, but underlie our daily behavior. They cause us, unconsciously, to develop defense mechanisms to avoid, escape, or get rid of unpleasant experiences (Jung and Hinckle 1921; Segal et al. 2012). These unconscious defense mechanisms are also an important source of people's repetitive mental patterns, which can result in self-limiting beliefs, unhappiness, or depression. This plays out as conflicts in ourselves and in our relationships; we manifest feelings of anxiety, fear, anger, or sadness, without knowing why we feel that way, followed by rumination and/or aversion (Segal et al. 2012). Through increasing EI, it is possible to bring these patterns to consciousness and address them.

Linking EI and SDGs

Both the literature review and the outcomes of the recent UN event on EI and the SDGs (cf. Introduction) indicate that the cognitive/emotional and relational capacities that make up the EI concept can support the development of transformative skills. The latter are key in supporting change toward sustainability, including conflict resolution, peace building, and developing inclusive and just societies and institutions. In sum, they relate to the capabilities of individuals to recognize their own emotions and those of others, discern between different feelings and label them appropriately, use emotional information to reflect about thinking and behavior, and manage emotions to be able to question and adapt to environments in support of achieving equitable, just goals.

EI can, thus, influence the capacity to reflect on one's own mental models and assumptions and, potentially, adopt new paradigms, which is one of the most powerful ways to dramatically influence sustainability outcomes. In this context, EI influences relationality, i.e., how we relate to ourselves, to each other, to the environment, and to the future and, thus, links to our capacities regarding how we understand and address sustainability. This is because sustainability is fundamentally about our relationships, i.e., the relationship to one's self, what we believe and value, and how we view ourselves in relation to the world around us (Leichenko and O'Brien 2019; O'Brien 2018). Changing the way that we engage in these

relationships is, thus, key to achieving the SDGs, and particularly SDG 16, which is a foundation for all of the Global Goals (cf. Introduction). This applies not just to individual agency, but to all groups and institutions, including businesses and governmental and educational organizations.

Relationship to Self

The relationship to self is closely related to our self-awareness and self-management (cf. Definitions). It refers to the ability to monitor one's own feelings and emotions and to use this in guiding one's thinking and actions. It thus helps to manage feelings, such as stress, in a more efficient way, while supporting emotional balance and a positive outlook (Nikolaou and Tsaousis 2002; Salovey and Mayer 1990).

Scientists estimate that up to 95% of what happens in our brains is generally beyond our conscious awareness. Developing self-awareness can, thus, help people recognize their self-limiting beliefs and mental biases. In other words, people with high levels of EI are aware that their emotions can influence their decision-making, and know how to manage their emotions to build strategies to solve problems. They can bring awareness to their, often unconscious, needs and complexes and take responsibility for them. They, therefore, know their strengths, weaknesses, and capabilities and can build strategies to manage emotions that do not serve them or others well (Goleman 1995).

How this links to achieving the SDGs can best be illustrated with examples from practice. Liliane Umuhoza, a speaker at the UN EI conference, survived the 1994 Rwandan genocide along with her mother, and several years later founded a program that helps women who were raped during the conflict. During her speech, she gave a first-hand account of what happens when the contribution of a society's mental health to achieving sustainable development is undervalued. She explained that short- and long-term, fast- and slow-onset disasters and conflicts can have psychological repercussions for a society, with a percentage of the population afflicted with mental illnesses such as posttraumatic stress disorder, depression, or anxiety. Climate change and its

increasing psychological impacts, including so-called climate or eco anxiety, are other, current examples (Clayton et al. 2017; Doppelt 2016).

The areas of the brain affected by prolonged stress, violence, and trauma are usually those associated with the regulation of emotion, along with those that control learning and memory. Other brain regions related to the control of impulses and reasoning, problem-solving, and judgment are also impaired and, therefore, have under such circumstances less influence on, or power over, individual behavior (Putnam 2003).

Consequently, people who experience conflicts or other forms of crises often also have difficulty with bonding and attachment, which in turn negatively influences the development of stable, trusting relationships, and a sense of responsibility or trespass, more broadly. Young children who experience crises and associated trauma exhibit, for instance, cognitive and language delays that place them at risk of early learning difficulties and later societal challenges. They often suffer significant mood swings, anger, irritability, and profound depression in later life (Putnam 2003).

People who have experienced prolonged stress, crises, and trauma also tend to repeat their experiences and outcomes from one generation to the next, creating vicious cycles (Lev-Wiesel 2007). Capacities, which children and adults that have undergone such experiences lack, can be developed when practicing EI (Furnham and Petrides 2003), with positive impacts not only at the personal level, but also on countries' social and economic development (Tomer 2003).

Relationship to Others

Our relationship to others is related to all four capacities associated with EI (cf. Definitions). When we are deeply connected to ourselves, and aware of our emotional and behavioral patterns, including how we react when pushed out of our comfort zone, we have a greater capacity to connect with others. People are connected through physical and mental processes, through emotions, experiences, stories, and associated meaning-making. Being able to sense the emotions and perspectives of others is thus important to

understand and address individual or collective paradigms and beliefs, including power relationships.

Research suggests that individuals high in EI are more empathetic, have better interpersonal relationships, lead more effectively, and are more cooperative (Mellner 2020). Studies also show that EI is related to the personality characteristics of extraversion (happy, optimistic), agreeableness (low assertiveness) and conscientiousness (self-motivation), as well as emotional stability (Petrides et al. 2016). Further work has found associations between EI and prosocial behaviors (Frederickson et al. 2012) and a tendency toward emotional openness (Grieve and Panebianco 2013). The latter refers to the personality characteristic of "openness to experience," which refers to the depth and complexity of individuals' mental lives and experiences (John and Srivastava 1999). It has been connected to so-called universalism values, including promoting peace and tolerance and seeing all people as equally deserving of equality and justice (Douglas et al. 2016; Mellner 2020).

During the UN event, Bintou Keita, Assistant Secretary-General for Peace Operations in Africa, shared personal insights from her vast experience in peacekeeping operations. She states that she has learned that one must listen and create space for people to express their emotions, as this is the key to ensuring that "no-one feels they are being excluded, marginalized, discriminated or devaluated." Listening and respecting others' emotions can only be achieved through empathy, which relates to the social awareness capacities found in the EI model. This, in turn, supports social relationships and cooperation and devalues individualism and competition (Lopes et al. 2004). Through social awareness it is, thus, possible to better understand other people, cultures, and practices and underlying patterns, such as power relationships and oppression, thereby helping to promote peace, justice, and well-being in societies around the world.

Relationship to the Environment

Sustainability links to our relationship with nature and, more broadly, the environment. It forces us to rethink our relationship with small- and large-scale global systems and reflect on the capacity of individuals, society, and governance systems to change them. It relates to all four capacities associated with EI (cf. Definitions).

Several studies have found that leaders who engage with sustainability-related issues show higher levels of self-awareness and self-reflection, the first capacity in the EI model (Divecha and Brown 2013; Rimanoczy 2010; Schein 2015). Leaders and employees with high EI are said to have a better understanding of themselves and a clearer vision of their goals, values, and motivational drivers, which, ultimately, can help in working with and leading teams toward the common good (Boyatzis et al. 2000; Douglas et al. 2016). Achieving such visions is supported by the four EI capacities, as they can help to develop an open, positive outlook, empathy, and flexibility, facilitating individual adaptation and change, which is key in a context of increasing sustainability challenges and uncertainty (Grieve and Panebianco 2013; Petrides et al. 2016; Huy 1999; Sy et al. 2006). In the workplace, these skills help leaders and employees to create positive, respectful, and supportive climates, which support conflict management, trust, team commitment, and, ultimately, organizational success (Cooper 1997; Rosete and Ciarrochi 2005).

Most research regarding the impacts of EI relates to its relevance to leadership and organizational change. The EI concept itself was based on analyses of more than a hundred competence models from corporations, NGOs, and governments. The findings highlighted that the typical skillset of outstanding leaders had nothing to do with their cognitive abilities, but with EI. It was found that mastering EI allows people to have compassion and empathy toward themselves and others, facilitating inner direction and goal accomplishment and helping and inspiring others to do the same (Goleman 2011).

EI at the individual level leads, in turn, to emotional capability at the organizational level, which increases the likelihood for organizations to effect radical change (Huy 1999). Decisions will always be driven by emotions and the latter, if not taken seriously and managed, have the power to negatively impact others, both inside and outside

the institution's direct influence (Kerr et al. 2006). So-called emotionally-intelligent or conscious organizations can, thus, be understood as institutions that are formed by emotionally-intelligent individuals who have the potential to leave their biases and agendas aside in support of good governance and the building of a peaceful and just world.

Relationship to Future Generations

Sustainability is about how we relate to future generations and intergenerational justice. The aim is to meet the needs of the present, without compromising the ability of future generations to meet their own needs. It relates to our relationships to others, and where we draw the line between "us" and "others," i.e., who is within our community or circle of care, and within what time perspective. This relates to all four capacities associated with EI (cf. Definitions).

The many studies on EI, leadership, organizational change, and ethics/values (cf. previous section) have led to the incorporation of EI into many sustainable business, management, and leadership models and approaches, both implicitly and explicitly. EI is, for instance, one of the four dimensions of the Sustainability Mindset Model developed for Management Education (Kassel et al. 2016, 2018). It is also an important cornerstone of various Transformational Leadership approaches, such as the Full Spectrum Approach, developed by Monica Sharma, which has been applied to various UN programs and projects in support of sustainable development (Hochachka 2006; Sharma 2018).

In recent years, the relationship between sustainability (science, practice, and education) and different aspects of EI has received increasing interest from researchers. While related studies show the importance of issues such as self-awareness, self-management, compassion, empathy, mindfulness, and relationality, which underpin human–environment relations and intergenerational justice, they also call for further research in this field to better understand the linkages between personal, collective/organizational, and systems changes (Batson 2010; Brown et al. 2019; Wamsler 2018, 2020; Wamsler et al. 2018; Walsh et al. 2020).

Conclusions and the Way Forward: Integrating Personal, Collective, and Systems Change

The previous sections have shown that the EI concept encompasses a set of cognitive/emotional and relational capacities that can help to address global sustainability challenges. These capacities influence people's mindsets, i.e., individual and social/collective paradigms, belief systems, values and norms, which have the most leverage in driving change toward sustainability (Meadows 1999). This is crucial, since improved access to information, knowledge, and technology alone has proved to be ineffective in tackling global challenges.

Addressing people's mindsets is an approach that can open up new pathways to sustainability, by supporting a fundamental shift in the way people think about – and ultimately act on – socio-ecological crises (Wamsler 2018, 2020; Wamsler et al. 2018). These pathways influence how we relate to ourselves, to each other, to the environment, and to the future. This applies not just to individuals, but to organizations, groups, and society as a whole.

The EI concept itself does not, however, provide a framework to understand how inner dimensions and well-being link to, and impact, societal and global transformation. Such frameworks and related analyses have only recently been developed by climate and sustainable development scholars and practitioners (e.g., Brown et al. 2019; O'Brien 2018; Kassel et al. 2018; Sharma 2018; Wamsler et al. 2018; Wamsler 2018, Wamsler and Brink 2018). They aim to link knowledge from different fields, such as psychology and social neuroscience, with transformation and systems theories.

While there is a growing body of research that calls for greater consideration of inner dimensions when addressing climate change and other sustainability challenges, few studies have, so far, looked at the skills that would be conducive for such a change. At the same time, psychological concepts such as EI offer important insights.

Capacities associated with EI are, consequently, also closely related to recent

sustainability competency frameworks developed by scholars such as Mellner (2020), Björkman (2019), Kassel et al. (2018), and Wamsler et al. (2020). These competency frameworks provide (clusters of) transformative skills or qualities that influence our ways of being (ontologies), thinking (epistemologies), and acting (ethics) (Walsh et al. 2020) across all domains (personal, social/collective, system). Wamsler et al. (2020) define them as follows:

- *Openness, self-awareness*, *and reflection:* The ability to meet situations, people, others, and one's own thoughts and feelings with openness, presence, and acceptance
- *Compassion and empathy*: The ability and desire to see and meet oneself, others, and the world with care, humility, and integrity
- *Perspective-seeking and relationality*: The ability to see and bring in more perspectives for a broader, relational understanding of oneself, others and the whole (e.g., related to one's understanding of the state of the planet and how information is processed)
- *Agency, empowerment, and sense-making*: The ability to see and understand broader and deeper patterns and our own role in the world in this regard. This also relates to optimistic/ hopeful emotions and attitudes
- *Values-based courage and engagement*: The ability to navigate oneself through the world based on insights into what is important (intrinsic values) and to have the (moral or ethical) courage to act on them. This relates to principled, action-oriented attitudes (Note that the inner skills or qualities listed here do not focus on more-general key competencies in sustainability, such as systems thinking, anticipatory, normative and strategic competencies, and creativity [Wiek et al. 2011], but are intrinsically connected with the latter)

But how are emotionally-intelligent, conscious societies created? Importantly, transformative skills can be improved and taught the same as math, English, science – or any other topic – through coaching and mentoring.

Dr. Richard J. Davidson (2012), in his book *The Emotional Life of Your Brain*, explains that within human brains, "nerve cells—called neurons—signal to each other, forming connections that enable everything from bodily movement to thought and emotions. These networks are 'roads' of sorts, and the more often they are used, the more established they are in the brain." Through neuroplasticity, which, in the author's words is, "the ability of the brain to change its structure and function in significant ways," humans can adapt to their environments and shape their ways of thinking and responding to it.

Through mental and physical activity, people can, thus, strengthen the neural connections between regions of the brain, including those that play a critical role in developing transformative skills and EI, building new habits, and modifying behavior. Everybody is, thus, able to learn how to be emotionally intelligent, at any moment and at any age (Davidson and Begley 2012).

There are many different methods, tools, and practices. They include nonviolent communication techniques, listening practices, breathing exercises, awareness and compassion cultivation training, perspective-taking techniques, mindfulness meditation, values-based training, acceptance and commitment therapy, cognitive reappraisals, and arts-based approaches. Relevant approaches can be found in many different contexts. As long ago as 1957, the second UN Secretary-General, Dag Hammarskjöld, supported the construction of a "Meditation Room" at the entrance of UN Headquarters, a space dedicated to self-reflection and silence, regardless of people's practices or religion. Since then, and notably over the past decade, there has been increasing interest in further developing different methods to support transformation, including new online tools, technologies, and apps.

While many methods have, so far, been developed, implemented, and validated for individual (and often therapeutic) purposes, there are few applications and studies that focus on their contribution to societal and systems change. Exceptions come from social neuroscience, psychology, sustainability and transformation sciences (e.g., Valk et al. 2017; Wamsler et al. 2018; Wamsler 2018, 2020; Goleman and Davidson 2017). Only in

recent years have increasing efforts been made to link existing methods to wider systems thinking, such as frameworks for mindful climate action and full-spectrum approaches that link personal, collective/organizational, and system change (e.g., Wamsler 2018; Sharma 2018; O'Brien 2018).

Encouraging progress is also being seen in the education sector, which is key for societies' future. An important example is the application of the EI concept in the social, emotional, and ethical learning approach (SEEL), which has developed out of the social/emotional learning approach (SEL). Similar to the above-described competency framework (Wamsler et al. 2020), the SEEL also explicitly relates to the self (personal domain), others (social domain), and the environment (systems domain) (CCCE 2019). Children who can take into account their own emotions and those of others know their values and how to manage their emotions in order to achieve their goals, grow up to become adults who are able to build peaceful, just, and inclusive societies.

Educational settings and the home environment are, along with organizations and workplaces, the perfect place to start constructing a conscious population where peace, inclusion and justice happen at all levels of society. Emotionally-intelligent teachers and caregivers are more likely to create so-called emotionally-intelligent or conscious institutions (Corcoran and Tormey 2010; cf. Relationship to the Environment). They are, along with leaders in the workplace, some of the most important people in society because they have the potential to, through their influence and education, create the biggest positive ripple effect. Since the mid-1960s, many children around the world – especially in America and some European countries – have been introduced to EI through SEL and SEEL programs. Teachers introduce children to EI and, through techniques, games, and exercises, develop skills such as self-awareness, compassion, empathy, and a positive outlook. Results have shown that SEL programs decrease behavioral problems, emotional distress, and drug use in students and support an improvement in empathy, achievement orientation, and conflict resolution (Payton et al. 2008).

Investment in school- and university-level teacher training could help to achieve a more sustainable and efficient implementation of SEL/SEEL and support sustainability (Corcoran and Tormey 2012). If a teacher or a parent is unable to understand their own feelings, regulate their own emotions, manage their own stress, and build healthy relationships with others, they will not be able to adequately support children (Brackett et al. 2010). Through coaching, mentoring, and training programs designed to develop EI, educators can understand and manage their own social, emotional, and cognitive development, lower their stress, improve relationships with peers, perform better at work, and increase their overall happiness, while supporting the same capacities in their students (Brackett et al. 2011). Having emotionally-intelligent educators is also crucial for the emotional development of a child, because there is a strong connection between childhood experience and education, and children's emotional development (Thompson 2015).

Finally, it is important to note that further research is needed regarding the impacts of different methods and tools that support EI (and transformative skills more broadly) with respect to societal and systems transformation toward sustainability. In addition, further research should investigate how such approaches can be adapted to: (i) reduce any potential negative impacts and (ii) best support sustainability beyond the individual level. Any potential adverse effects need to be actively considered, in particular the instrumentalization of EI and associated methods and tools for undesirable purposes, or to reproduce neoliberal, self-optimization ideologies (Côté et al. 2011; Rocha 2014; Walsh 2016). In addition, it is important to adapt their use to the context of sustainability, rather than automatically assuming a positive effect (Wamsler 2020; Jupp et al. 2017). Finally, it is equally important to take a critical look at the context and pre- or co-conditions that can play a supporting role in bringing about societal transformation. We conclude that by actively considering existing critiques, challenges, and contextual conditions, individual inner dimensions and related transformation can become an important component for critical, improved

education and social change, thus becoming both a means and an end for sustainable development.

Cross-Reference

▶ Mindfulness, Education, and the Sustainable Development Goals

References

Abson DJ, Fischer J, Leventon J, Newig J, Schomerus T, Vilsmaier U, von Wehrden H, Abernethy P, Ives CD, Jager NW, Lang DJ (2017) Leverage points for sustainability transformation. Ambio 46(1):30–39

Batson CD (2010) Empathy-induced altruistic motivation. In: Mikulincer M, Shaver PR (eds) Prosocial motives, emotions, and behavior: the better angels of our nature. American Psychological Association, pp 15–34. https://doi.org/10.1037/12061-001

Björkman T (2019) Inner-societal transformation: the case of Ekskäret & The Mindshift project, lecture for the Sustainability and Inner Transformation Course at Lund University Centre for Sustainability Studies (LUCSUS), Sweden

Boyatzis RE, Goleman D, Rhee K (2000) Clustering competence in emotional intelligence: insights from the emotional competence inventory (ECI)s. In: Bar-On R, Parker JDA (eds) The handbook of emotional intelligence: the theory and practice of development, evaluation, education, and application – at home, school, and in the workplace. Jossey-Bass Inc., San Francisco, California, USA, pp 343–362

Brackett MA, Palomera R, Mojsa-Kaja J, Reyes MR, Salovey P (2010) Emotion-regulation ability, burnout, and job satisfaction among British secondary-school teachers. Psychol Sch 47:406–417

Brackett MA, Rivers SE, Salovey P (2011) Emotional intelligence: implications for personal, social, academic, and workplace success. Soc Personal Psychol Compass 5:88–103

Brown K et al (2019) Empathy, place and identity interactions for sustainability. Glob Environ Chang 56:11–17

CCCE (the Center for Contemplative Science and Compassion-Based Ethics) (2019) Social, emotional, and ethical learning (SEE learning). CCCE, Emory University, Atlanta

Clayton S, Manning CM, Krygsman K, Speiser M (2017) Mental health and our changing climate: impacts, implications, and guidance. American Psychological Association, Washington, DC

Cooper RK (1997) Applying emotional intelligence in the workplace. Training Dev 51:31–38

Corcoran R, Tormey R (2010) Teacher education, emotional competencies and development education. Soc Behav Sci 2(2):2448–2457

Corcoran R, Tormey R (2012) How emotionally intelligent are pre-service teachers? Teach Teach Educ 28:750–759

Côté S, DeCelles KA, McCarthy JM, Van Kleef GA, Hideg I (2011) The Jekyll and Hyde of emotional intelligence. Psychol Sci 22:1073–1080

Davidson R (2012) The emotional life of your brain. Penguin Group, NY, USA

Davidson RJ, Begley S (2012) The emotional life of your brain: how its unique patterns affect the way you think, feel, and live – and how you can change them. Avery, New York

Davitz JR, Beldoch M (1964) The communication of emotional meaning. Westport, Conn., Greenwood Press

Divecha S, Brown BC (2013) Integral sustainability: correlating action logics with sustainability to provide insight into the dynamics of change. J Integral Theory Pract 8(3/4):197

Doppelt B (2016) Transformational resilience: how building human resilience to climate disruption can safeguard society and increase wellbeing. Routledge, New York

Douglas HE, Bore M, Munro D (2016) Openness and intellect: an analysis of the motivational constructs underlying two aspects of personality. Personal Individ Differ 99:242–253

Eisler R, Levine DS (2002) Nurture, nature, and caring: we are not prisoners of our genes. Brain Mind 3:9–52

Frederickson N, Petrides KV, Simmonds E (2012) Trait emotional intelligence as a predictor of socioemotional outcomes in early adolescence. Personal Individ Differ 52:323–328

Furnham A, Petrides KV (2003) Trait emotional intelligence and happiness. Soc Behav Personal Int J 31:815–824

Gardner H (1983) Frames of mind: the theory of multiple intelligences. Basic Books, New York

Goleman D (1995) Emotional intelligence: why it can matter more than IQ. Bantam Books, New York

Goleman D (2011) Working with emotional intelligence. Penguin Random House LLC, New York

Goleman D, Boyatzis RE (2017) Emotional Intelligence has 12 elements. Which do you need to work on? Available via Harvard Business Review. https://hbr.org/2017/02/emotional-intelligence-has-12-elements-which-do-you-need-to-work-on. Accessed 05 Apr 2020

Goleman D, Davidson RJ (2017) Altered traits: science reveals how meditation changes your mind, brain, and body. Penguin, New York

Grieve R, Panebianco L (2013) Assessing the role of aggression, empathy, and self-serving cognitive distortions in trait emotional manipulation. Aust J Psychol 65:79–88

Hochachka G (2006) Developing leadership from within: use of the integral framework in UNDP's leadership for results programme to reverse the HIV/AIDS epidemic. Drishti-Center for Integral Action, Vancouver

Huy Q (1999) Emotional capability, emotional intelligence, and radical change. Acad Manag Rev 24(2):325–345

Ives C, Freeth R, Fischer J (2020) Inside-out sustainability: the neglect of inner worlds. Ambio 49(1):208–217

John OP, Srivastava S (1999) The big five taxonomy: history, measurement and theoretical perspectives. In: Pervin LA, John OP (eds) Handbook of personality: theory and research, 2nd edn. Guilford, New York, pp 102–138

Jung C (1921/1971) Psychological types (trans: Baynes HG; rev trans: Hull RFC). Princeton University Press, Princeton. [Original work published 1921]

Jung CG, Hinckle BM (1921) Psychology of the unconscious: a study of the transformations and symbolism of the libido, a contribution to the history of the evolution of thought. Kegan Paul, Trench, Trubner, London

Jupp E, Pykett J, Smith FM (eds) (2017) Emotional states: sites and spaces of affective governance. Taylor and Francis, New York

Kassel K, Rimanoczy I, Mitchell S (2016) The sustainable mindset: connecting being, thinking, and doing in management education. In: Academy of management proceedings, p 16659

Kassel K, Rimanoczy I, Mitchell F (2018) Connecting different aspects with the knowing being and doing dimensions, pp. 3-37. In: Kassel K, Rimanoczy I (eds) Developing a sustainability mindset in management education. Routledge, New York

Kerr R, Garvin J, Heaton N, Boyle E (2006) Emotional intelligence and leadership effectiveness. Leadersh Org Dev J 27(4):265–279

Leichenko R, O'Brien K (2019) Climate and society: transforming the future. Polity Press, Cambridge, UK

Leuner B (1966) Emotional intelligence and emancipation. Prax Kinderpsychol Kinderpsychiatr 15(6):193–203

Lev-Wiesel R (2007) Intergenerational transmission of trauma across three generations: a preliminary study. Qual Soc Work: Res Pract 6(1):75–94

Lopes PN, Brackett MA, Nezlek JB, Schütz A, Sellin I, Salovey P (2004) Emotional intelligence and social interaction. Personal Soc Psychol Bull 30:1018–1034

Mayer JD, Salovey P, Caruso D (2002) Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), version 2.0. Multi-Health Systems, Toronto

Meadows D (1999) Leverage points: places to intervene in a system. Sustainability Institute papers. Sustainability Institute, Hartland

Mellner C (2020) On the becoming of conscious co-creators, Eskäret foundation white paper on transformative skills for the 21 century. Eskäret Foundation, Stockholm

Nikolaou I, Tsaousis I (2002) Emotional intelligence in the workplace: exploring its effects on occupational stress and organisational commitment. Int J Organ Anal 10(4), 327–342

O'Brien K (2018) Is the 1.5 C target possible? Exploring the three spheres of transformation. Curr Opin Env Sust 31:153–160

Payne WL (1983/1986) A study of emotion: developing emotional intelligence; self integration; relating to fear, pain and desire. Diss Abstr Int 47:203A

Payton J, Weissberg R, Durlak JA, Dymnicki AB, Taylor RD, Schellinger KB, Pachan M (2008) The positive impact of social and emotional learning for kindergarten to eighth-grade students. Findings from three scientific reviews. Collaborative for Academic, Social, and Emotional Learning (CASEL), Chicago

Petrides KV, Mikolajczak M, Mavroveli S, Sanches-Ruir M-J, Furnham A, Perez-Gonzalez J-C (2016) Developments in trait emotional intelligence research. Emot Rev 8(4):335–341

Putnam F (2003) Ten-year research update review: child sexual abuse. J Am Acad Child Adolesc Psychiatry 42:269–278

Rimanoczy IB (2010) Business leader committing to and fostering sustainability initiatives. Doctoral dissertation. Teachers College, Columbia University

Rocha T (2014) The dark night of the soul: for some, meditation has become more curse than cure. The Atlantic, June 2014. Available at: www.theatlantic.com/health/archive/2014/06/the-darkknight-of-the-souls/372766. Accessed 4 Apr 2019

Rosete D, Ciarrochi J (2005) Emotional intelligence and its relationship to workplace performance outcomes of leadership effectiveness. Leadersh Org Dev J 26(5):388–399

Salovey P, Mayer JD (1990) Emotional intelligence. Imagin Cogn Pers 9:185–211

Schein S (2015) A new psychology for sustainability leadership: the hidden power of ecological worldviews. Greenleaf Publishing, Sheffield

Segal Z, Williams J, Teasdale J (2012) Mindfulness-based cognitive therapy for depression, second edition: a new approach to preventing relapse. Guilford Publications, New York

Senge P, Scharmer CO, Jaworski J, Flowers B (2004) Presence. Human purpose and the field of the future. Crown Business, New York

Sharma M (2018) Radical transformational leadership: strategic action for change agents. North Atlantic Books, California, Berkeley

Sy T, Tram S, O'Hara LA (2006) Relation of employee and manager emotional intelligence to job satisfaction and performance. J Vocat Behav 68(3):461–473

Thompson RA (2015) Doing it with feeling: the emotion in early socioemotional development. San Diego: Emot Rev 7(1):121–125

Tomer JF (2003) Personal capital and emotional intelligence: an increasingly important intangible source of economic growth. East Econ J 29(3):453–470

UN (2016) The sustainable development agenda. https://www.un.org/sustainabledevelopment/. Accessed 1 Feb 2020

United Nations Academic Impact (UNAI) (2019) Unlocking Your Emotions to Achieve the SDGs. http://bit.ly/3102Olr. Accessed 17 May 2019

Valk SL, Bernhardt BC, Trautwein FM, Böckler A, Kanske P, Collins DL, Singer T (2017) Structural plasticity of the social brain: differential change after socio-affective and cognitive mental training. Sci Adv 3(10): e1700489

Wals AEJ, Corcoran PB (eds) (2012) Learning for sustainability in times of accelerating change. Wageningen Academic Publishers, Wageningen

Walsh Z (2016) A meta-critique of mindfulness critiques: from McMindfulness to critical mindfulness. In: Purser R, Forbes D, Burke A (eds) Handbook of mindfulness: culture, context, and social engagement. Springer, Cham

Walsh Z, Böhme J, Wamsler C (2020) Towards a relational paradigm in sustainability research, practice, and education. Ambio. https://ac088a9f-e624-4ef7-a33e-4587633 e0968.filesusr.com/ugd/4cc31e_a063ed2ad7194545b5c 40a2fbb76bfae.pdf

Wamsler C (2018) Mind the gap: the role of mindfulness in adapting to increasing risk and climate change. Sustain Sci 13:1121–1135

Wamsler C (2020) Education for sustainability: fostering a more conscious society and transformation towards sustainability. Int J Sustain High Educ 21(1):112–130

Wamsler C, Brink E (2018) Mindsets for sustainability: Exploring the link between mindfulness and sustainable climate adaptation. Ecol Econ 151:55–61

Wamsler C, Brossmann J, Hendersson H, Kristjansdottir R, McDonald C, Scarampi P (2018) Mindfulness in sustainability science, practice and teaching. Sustain Sci 13(1):143–162

Wamsler et al (2020) Enabling new mindsets and transformative skills for negotiating and activating climate action: lessons from the UNFCCC Conferences of the Parties, forthcoming

Wiek A, Withycombe L, Redman CL (2011) Key competencies in sustainability: a reference framework for academic program development. Sustain Sci 6:203–218