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Concerned Creativity to Counteract Concerning Creativity

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Abstract

This chapter introduces the three C's conception of creativity, in which creativity is understood as a complex interplay of creative competence, commitment to the creative task, and concern for others in the creative process and product. Going beyond the traditional definition of creativity as producing novel and valuable or useful ideas, we argue that *purpose* should also be included in the conception of creativity. We expand on existing models and emphasize the importance of using creativity to improve the well-being of oneself as well as other people, societies, and the planet. We propose the three Cs componential model of creativity, the corresponding creative thinking process, and our pilot educational program on transformational creativity. We thus hope to continue and extend the scholarship on the timely theory of transformational creativity.

Keywords: competence, task motivation, concern for others, empathy, compassion, prosocial behavior, creative thinking, creative thinking process, individual, concerned creativity

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"The larger the number for whom I worked, the more positively effective I became. Thus, it is obvious that if I worked always . . . for all humanity, I would be optimally effective" ~ R. Buckminster Fuller, the highly creative inventor and architect, also known as the da Vinci of the 20th century (Fuller & Kuromiya, 1981, p. 125)

Humans are a uniquely creative species. We are constantly producing novel ideas and products that add value to and transform our societies (Runco & Jaeger, 2012). This powerful creative streak has shaped the course of human cultural evolution. For example, human language vastly transcends the expressive power of animal and other non-human communication. This expressive power stems from the highly flexible and unboundedly creative nature of human language that “makes infinite use of finite means" (Humboldt, 1836, as cited in Chomsky, 1965) to communicate a wide variety of both concrete and abstract ideas such as “justice,” “number,” “money,” and indeed “creativity” that have shaped human civilization. In addition to language, the potentially infinite nature of human creativity shines through in object manipulation and tool use. Equipped with our opposable thumbs, we continuously innovate to create new machines and technologies in a rapidly-changing world. We are constantly communicating impactful ideas to build ever-more-complex material technologies such as vaccines, spaceships, and artificial intelligence, while simultaneously developing ideas, such as in religion, philosophy, and spirituality to solve our species’ deepest existential questions. Thus, our unbounded human creativity has affected and continues to affect our species, often in positive, prosocial, and transformational ways (Kaufman & Glăveanu, 2023; Sternberg 2021a, 2021b; Sternberg & Chowkase, 2021).

Yet creativity can too often function as a double-edged sword; leading to negative, antisocial, and harmful consequences on our society, also known as dark or malevolent creativity (Cropley et al., 2010; James et al., 1999; Kapoor & Kaufman, 2022). Humans can create both calculus and concentration camps. Indeed, many of the intractable, complex, and "wicked" policy challenges, such as climate change, global poverty, malnutrition, armed conflicts, and more, arise from the applications and misapplications of creativity (Churchman, 1967). Such cases of *concerning* creativity warrant special attention, due to their widespread impact on our world.

Furthermore, the creation of groundbreaking technologies including nuclear bombs, biological weapons, and artificial intelligence paints a stark picture: for the first time in human history, have humans created the ability to utterly destroy their own species? Thus, the dangers of unchanneled and unchallenged creativity cannot be overstated. Neither can they merely be observed passively. Instead, such *concerning* creativity ought to be actively countered by developing *concerned* creativity--creativity that not only fulfills self-serving purposes but also takes into account the welfare of others beyond the immediate social circle of the creative actor including other people, society, and the planet.

For creative ideas to yield constructive outcomes, they must be aligned with a socially positive system of values, morals, and ethics (Amabile & Pratt, 2016). For example, the energy industry is currently witnessing an urgent need for creative solutions in the face of climate change and economic challenges. Energy generation has become an increasingly complex, messy, and wicked problem, as it requires creative solutions that address interconnected and often diverging social, environmental, and financial concerns (Adkin, 2019; Mitchell & Walinga, 2017). What the energy sector needs today are solutions that are not only novel and useful but

also positive, prosocial, and transformational (Sternberg 2021a, 2021b; Sternberg & Chowkase, 2021). By embracing *concerned* creativity and aligning their creative endeavors with socially positive values, the energy industry can address the pressing challenges of climate change and create a more sustainable future (Broadstock et al., 2020).

Purpose

Creativity is the ability to produce novel and valuable or useful ideas (Runco & Jaeger, 2012). However, what is useful and creates value for one set of people can cause harm to other groups (George, 2007). As such, the widespread misuse of creativity has drawn the attention of many creativity researchers who believe that benevolent purpose should be equally central to creativity as novelty and value are (Amabile & Pratt, 2016; Clark & James, 1999; Kaufman & Glăveanu, 2023; Plucker et al., 2004; Sternberg 2021a, 2021b; Sternberg & Chowkase, 2021; Sternberg & Karami, 2021). A similar argument has been made by several scholars in the field of giftedness and talent development studies, a field that is closely related to the field of creativity studies. Several giftedness scholars highlight the need for the deployment of gifts and talents toward positive, prosocial, and transformational purposes as a key tenet of their conception of giftedness (Sternberg et al., 2021; see, Sternberg et al., 2022, for a review). One such conception is the three C's conception of giftedness (Chowkase, 2022a, 2022b; Chowkase & Watve, 2022), in which gifted behaviors are construed as an interplay of *competence in action*, *commitment to the task*, and *concern for others* (Renzulli, 2016). The focus on concern for others is a novel feature of the three-Cs model, which is relevant to the topic of transformational creativity.

Many scholars consider creativity as a sub-domain of giftedness (e.g., Marland, 1971). Therefore, the purpose of this chapter is to extend the three C's conception of giftedness to the study of creativity. Our conception of creativity goes beyond the traditional definition of

producing novel and valuable or useful ideas. Similar to Sternberg and Karami (2021), we argue that *purpose* should also be included in the conception of creativity.

Therefore, the focus of this conception is on the centrality of the transformational purpose of creativity that can help make positive, meaningful, and potentially enduring contributions to both self and others (Sternberg 2021a, 2021b). Our vision of creativity development focuses not only on fostering the creative competence and commitment needed to achieve excellence in one's creation but also on expanding one's circle of concern for others.

In this chapter, we explain the rationale and three focal constructs of our model. We conclude the chapter by describing our pilot educational program for teaching concerned or transformational creativity.

Going Beyond the Individual in Creativity

Traditional conceptions of creativity have typically focused on the individual (Simonton, 2008). Across many educational systems, creative endeavors are often thought to be accessible only to the exceptional and the gifted. However, researchers in recent times have highlighted how creativity is not the sole achievement of a solitary individual but rather based on the interaction of three autonomous elements: the individual, cultural domain, and social field (Csikszentmihalyi, 2014). A growing body of research points to the importance of factors beyond the individual in driving the origins of creativity (Glăveanu et al., 2020; Tromp & Sternberg, 2022).

Not only does creativity find its origins beyond the individual, but so do its consequences. Whereas traditional approaches to creative individuals have conceptualized creativity as a "gift" to be exploited., such views can eventually lead to selfish and harmful applications of creativity (Cropley et al., 2010; James et al., 1999; Kapoor & Kaufman, 2022).

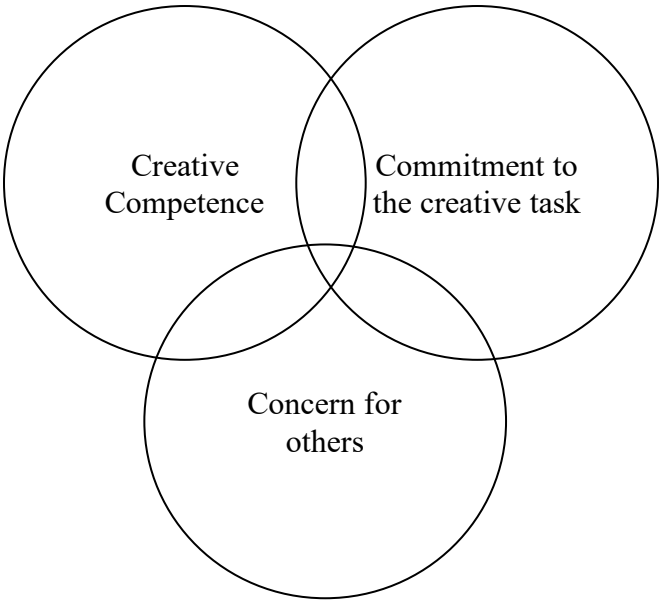
However, more recent approaches (e.g., Chowkase & Watve, 2022) to various intellectual gifts such as creativity have stressed “trusteeship of gifts” over an individual’s “ownership of gifts;” as such, the individual is entrusted to use their creativity for the benefit of all (Sternberg, 2022), thus emphasizing the social impact of creativity. In today’s hyper-connected world, one’s actions can have an astronomical impact on others, as evidenced by the recent COVID-19 pandemic. Developing concern for others, therefore, becomes an existential necessity (Chowkase & Watve, 2022).

The Three C’s Conception of Creativity

Drawing on the insight that creativity, in both its origins and its impacts, is situated beyond the individual, we conceptualize creativity, especially positive or transformational creativity, as the interaction of creative competence, commitment to the creative task, and concern for others in the creative process and product (see Figure 1). Each of these constructs can be seen as a group of abilities, skills, attitudes, and behaviors. *Creative competence* refers to the abilities and skills required to effectively complete a creative task. *Task commitment* pertains to an individual's motivation to continue and complete a creative task. *Concern for others* involves having the ability, sensitivity, and attitude to comprehend the needs and difficulties of others, establish a relationship with them, and be willing to take action. All three constructs are essential for positive or transformational creativity in this conception. Concerning or dark creativity can then be viewed as an interaction among creative competence, task commitment, and lack of concern for others.

Figure 1

The Three C’s Conception of Creativity



C1: Creative Competence

Creative competence refers to the abilities and skills required to effectively complete a creative task. Divergent thinking, and especially originality and flexibility, are central indicators of potential for creative thinking and are objectively measured in most studies of creativity (Runco & Acar, 2019). Besides divergent thinking, creative thinking also involves problem finding and evaluative thinking (Abdulla Alabbasi et al., 2020, 2021; Runco & Chand, 1995). Finding the right problem to solve is a critical aspect of transformational creativity (Sternberg, 2021b).

Some consensus exists that creativity also requires domain-specific knowledge and expertise (Amabile, 1996; Mumford et al., 2013; Subotnik et al., 2019). Knowledge, both declarative (factual information) and procedural (know-how), can influence creative thinking in facilitative and inhibiting ways (Kozbelt & Kantrowitz, 2019; Runco & Chand, 1995). Amabile (1996; Amabile & Pratt, 2016) described several other creativity-relevant processes and skills in her componential model of creativity. These include cognitive styles, perceptual styles, and

thinking skills that are conducive to taking new perspectives on problems, pivoting among different ideas, thinking broadly, and making unusual associations; personality processes, traits, and characteristics that lead the individual to take risks and eschew conformity; and persistent, energetic work styles. Developing creative competence entails mastering the aforementioned processes and skills.

Creative competence forms the core of creativity. No transformation is possible without developing creative competence; however, competence is by itself not sufficient to the understanding of creativity. The second important aspect of creativity in our view is the commitment to the creative task, without which one may never produce any high-quality creative idea or product at any level. As such, creative competence predicts what an individual can do, whereas commitment to the creative task predicts what they will actually do.

C2: Commitment to the Creative Task

Task commitment pertains to an individual's motivation to continue and complete a creative task. *Task* motivation is one of the key components of creativity (Amabile, 1996; Hennessey, 2019; Runco & Chand, 1995). Motivation can be task-specific and time-varying (Amabile, 1996; Hennessey, 2019). Amabile (1983) suggested two key elements of task motivation: attitudes toward the task and perceptions of own motivation for undertaking the task. Similarly, Kaufman and Glăveanu (2023) proposed passion and inspiration as the two most representative motivational constructs of creative ethos. Additionally, a body of research demonstrates how motivation, intrinsic, extrinsic, and prosocial, may be drivers of the creative process (Amabile, 1996; George, 2007; Hennessey, 2019). Interestingly, prosocial motivation and perspective-taking have been found to strengthen the relationship between intrinsic

motivation and creativity (Forgeard, 2022; Grant & Berry, 2011), thereby highlighting the importance of focusing on others in the creative process.

Several other factors can influence task motivation. Perceived progress in the creative task and perceived meaningfulness of the task can influence creativity via their effect on motivation (Amabile & Pratt, 2016; Grant & Berry, 2011). Additionally, research indicates that increases in creative self-efficacy are associated with increases in creative performance (Richter et al., 2012; Tierney & Farmer, 2011). Similarly, prior research hints that the creative-growth mindset and creative-fixed mindset are substantially related to creative performance (Karwowski, 2014; O'Connor et al., 2013). We hold that creative ideas or products are an outcome of creative competence and task commitment. The greater the product of these two constructs, the better the quality of the creative idea or product. However, such a value-free notion of creativity without an emphasis on concern for others can have negative, harmful, and even malevolent consequences on others (Cropley et al., 2010; James et al., 1999; Kapoor & Kaufman, 2022). Thus, we add concern for others to our conception of creativity along with competence and task commitment. It seems rather impossible to counteract *concerning* creativity without having a genuine concern for others.

C3: Concern for Others

We posit that achieving any transformational impact on the world requires cultivating *concern for others*. Being concerned for others means perceiving their needs and challenges, forming a sense of belonging with them, experiencing the emotional urge to help, and being motivated to take action (Chowkase & Watve, 2022). As humans, we are born with the ability to feel the suffering of others and be motivated to alleviate it (Keltner, 2009; Keltner et al., 2010). However, simply having concern for others without taking action is inadequate for making any

transformational change in the world. True concern should lead to meaningful prosocial acts in the creative process.

Inculcating and expressing concern for others in the creative process requires practicing *empathy*, *compassion*, and *prosocial behavior,* which jointly enable individuals to understand the realities of others and to work toward their betterment through the creative endeavor (Chowkase & Watve, 2022). Kaufman and Glăveanu (2023) have recently proposed similar constructs in their theory of creative ethos, two of which are perspective-taking (empathy) and compassion.

Empathy

Empathy is thinking and feeling with another person. It involves perspective-taking or cognitive empathy and empathic concern or affective empathy (Davis, 1983). Perspective-taking is the ability to mentalize or imagine things from another person's perspective, whereas empathic concern involves experience sharing or mirroring the emotions of others (Davis, 1983). Creativity requires the ability to perceive the needs, thoughts, and feelings of one's audience (Glăveanu, 2015). Both perspective-taking and empathic concern influence prosocial behavior (Batson, 2011; Chowkase, 2022a), which in turn, strengthens the relationship between intrinsic motivation and creativity (Forgeard, 2022; Grant & Berry, 2011). Evidence from neuroscience also suggests that empathizing and creativity may have overlapping neural bases (Takeuchi et al., 2014). To that extent, some evidence points to the effectiveness of empathy-based psychoeducational interventions in improving creative thinking (Doron, 2017).

Compassion

Compassion is the capacity to perceive and desire to alleviate another's suffering (Goetz et al., 2010). It involves mindfully engaging with the suffering of others, acknowledging common humanity, and responding with kindness (Jinpa, 2015). Although compassion seems to

share some commonalities with empathy, both conceptual and evolutionary, they are two distinctly separable constructs (Zaki, 2014). Whereas empathy requires mentalizing and mirroring the emotional and cognitive states of others, compassion helps connect with another's suffering without necessarily engaging in mentalizing and mirroring their states (Chowkase & Watve, 2022). This distinction is particularly useful in transformationally creative endeavors as one individual or a team of creators can never fully empathize with all those they may influence with their creation. Creative actors can, however, use their compassion to connect with people that are different from them.

Similar to empathy, compassion is a strong motivator of prosocial behavior (Batson, 2011; Chowkase, 2022a), and even short-term compassion training can have a positive change in prosocial behavior toward strangers (Leiberg et al., 2011). Moreover, compassion may also drive moral judgments and harm-reducing actions (Haidt, 2003), which is particularly important for transformational creativity. However, limited research exists linking compassion and creativity (Kaufman & Glăveanu, 2023), especially transformational creativity, which calls for more research in this area.

Prosocial Behavior

As stated earlier, we posit that true concern should translate into meaningful prosocial behavior in the creative process. Prosocial behavior is a range of actions intended to benefit people other than oneself, such as helping, comforting, cooperating, and sharing (Batson, 2011; Caprara et al., 2005). Prosocial behavior is rooted in values that concern the well-being of others. These values include self-transcendence and communal orientation, which emphasize interdependence, personal responsibility, and closeness with others (Clark & Mills, 1994; Schwartz, 2007). Self-transcendence values are further divided into two categories: *universalism*,

which involves understanding and protecting the welfare of all people, and *benevolence*, which focuses on preserving and improving the welfare of those who are close to us (Schwartz, 2007). We hold that promoting the values of universalism, benevolence, and self-transcendence is essential to achieving the goals of transformational creativity. People who have a strong desire to help others often go above and beyond what is expected of them to make a positive impact on the lives of those around them (Grant, 2007, 2008), which makes prosociality a critical component of transformational creativity.

Teaching for Transformational Creativity

Creativity is malleable and teachable, and so is transformational creativity (Sternberg & Chowkase, 2021). A vast body of literature points to teachable components of creativity as well as processes by which creativity can be developed through education. However, transformational creativity is a relatively new concept and has not, at least yet, been widely adopted in educational settings. Looking at a similar idea can help generate ideas for translating the concept into teaching programs. One such effort can be found in the literature on wise and humanizing creativity, an idea that is similar to transformational creativity (Sternberg & Chowkase, 2021). Wise creativity involves deploying creative ideas toward the collective good (Craft, 2008). This idea has been implemented into an educational program using a gameful learning design with a focus on attending to ethics and the impact of ideas, engaging in dialog, being in control, and engaging in action (Walsh et al., 2017). Similar experiments are needed with the idea of transformational creativity.

With this in mind, we recently (Summer 2023) organized a four-day residential summer camp with 5th and 6th-grade Indian students on the theme of transformational creativity. We used the three C's framework described above in our program planning. Although the

effectiveness of the program is currently being assessed and remains unknown at this time, we present the outline of the program here to help the readers visualize the program. Our only hope in doing so is to pave the path for future experiments in program development around this theme and program evaluation research that may follow. Our presentation below is not prescriptive. Rather, we provide program details only as a description and trigger for future program design in this area.

Session 1: Exploring Creativity

During the *Exploring Creativity* session, students discussed how creativity can make a positive impact on society. Additionally, they brainstormed ideas for using creativity for noble purposes.

Session 2: Creative Mindsets

In the session on *Creative Mindsets*, students engaged with the concept of fixed and growth mindsets (Karwowski, 2014), exploring how an individual's beliefs can influence their creativity. Through examples, teachers emphasized that creativity can grow and develop with effort and deliberate practice.

Session 3: Artistic Creativity

During the *Artistic Creativity* session, students explored different ways of repurposing trash materials such as newspapers to create artistic things. The session aimed to inspire students to see that even discarded items can be transformed into novel and useful creations.

Session 4: Creative Problem Solving (Part 1)

In the *Creative Problem Solving* session, students watched the movie 'Elizabeth Ekadashi' and discussed the characters' use of imagination, practical thinking, and wisdom to overcome

challenges. They also discussed social issues such as discrimination and superstitions portrayed in the film.

Session 5: Creative Problem Solving (Part 2)

In the second session on *Creative Problem Solving*, students learned about and applied the five steps of problem solving: preparation, incubation, illumination, evaluation, and verification (Amabile & Pratt, 2016; Wallas, 1926). In small groups, students were challenged to make snacks for everyone on the team with a meager budget of INR 25 (30 cents).

Session 6: Designing

The *Designing* session taught students the fundamentals of design, with a task to create a logo and motto for their educational program. Teachers covered topics such as conveying ideas through visual and verbal expressions. Students collaborated in small groups, applying the creative thinking process (Amabile & Pratt, 2016; Wallas, 1926) to complete their tasks.

Sessions 7-9: Creative Expression: Musical, Kinesthetic, and Synchronization

In a series of *Creative Expression* sessions, students explored different forms of creative expression. In the *Musical* session, they composed songs and developed dance steps based on gibberish lyrics, blending them with the melodies of their favorite songs. The *Kinesthetic* session focused on physical movement as a means of creative expression, with students using various body movements to convey ideas and emotions. They even formed human pyramids while dancing energetically. Lastly, the *Creative Synchronization* session involved watching a synchronized walking video and then working in groups to create their two-minute synchronized walks. Precision, creativity, teamwork, and attention to detail were emphasized as students showcased their synchronized walks.

Session 10: Mathematical Creativity

In the *Mathematical Creativity* session, students were given math problems and were encouraged to think creatively to find multiple ways to solve each problem. The session aimed to show the connection between creativity and math, and to improve students' problem-solving skills.

Session 11: Concerned Creativity

The objective of the concluding session of the program was to orient students' attention to the aspects of purpose and impact of creativity. Through examples from arts (portraits), children's literature, and technology (Machine Learning and Artificial Intelligence), three guest speakers demonstrated examples of the positive, prosocial, and transformational deployment of creativity in their domains of expertise. For example, a Machine Learning expert demonstrated the use of lateral thinking to address the burning issue of misinformation. An artist displayed her portraits of Indigenous women and described how she used her art to promote cultural diversity. Throughout the session, students reflected on the impact of an individual's creative ideas and products on others, especially in marginalized communities. Drawing inspiration from creative leaders such as Mahatma Gandhi, teachers described the transformative potential of creativity and its role in fostering a more inclusive, ethical, and compassionate society. Overall, this session underscored creativity's potential to shape a better world.

Teaching Approach

The creativity program incorporated the three Cs, competence, commitment, and concern for others, by designing sessions that address these aspects in a holistic and integrated manner. The sessions on *designing, artistic* and *mathematical creativity*, and *musical* and *kinesthetic creative expression* directly targeted the development of creative competence. Students were engaged in activities requiring several creativity-relevant skills, such as divergent thinking,

evaluative thinking, critical thinking, and problem-solving skills, as well as domain-specific knowledge, and memory.

The sessions on *creative mindsets* and *creative synchronization* focused on task commitment. These sessions aimed to develop motivation-related skills such as attitudes toward the task, dedication, focus, and perseverance, in their creative endeavors. In six of the eleven sessions, students were put into groups, thereby requiring them to work on their group skills such as collaboration, interpersonal communication, and openness toward others. The two sessions on *creative problem solving* combined aspects of creative competence and task commitment and provided opportunities to practice problem-solving skills in real-life contexts.

The sessions on *exploring creativity* and *concerned creativity* drew students' attention to the purpose and impact of their creative ideas. The objective was to expand their circle of concern beyond their immediate relatives and friends. Through discussions, multimedia, and guest speakers, students were nudged to practice empathy, compassion, and prosocial behavior and inculcate a sense of responsibility and social awareness in their creative problem solving. This thrust on concern for others also appeared in other sessions, such as the movie discussion.

The creative thinking process was emphasized across the sessions, repeatedly inviting students to think about the steps involved in the creative process. Overall, the program provided a comprehensive and integrated creative experience for students by combining competence, commitment, and concern for others across several domains of creativity. Data were collected before and after the program on four variables about task commitment: fixed-creative mindset, growth-creative mindset, creative self-efficacy, and creative personal identity. The preliminary results revealed a statistically significant change over time in participants' creative self-efficacy and creative personal identity. Final results are being developed at the time of writing this

chapter. Future research on program effectiveness should include several other constructs enlisted in the proposed model.

Conclusion

Value-free notions of creativity have dominated the study of creativity (e.g., Runco & Jaeger, 2012). However, the past and present days of human civilization point to innumerable examples of concerning creativity, from eugenics to atom bombs to deepfake videos. Today, we humans are standing at the turn of an Artificial Intelligence revolution. At the same time, polarization and violence are on the rise globally. Every day, we are uncovering the enormous creative potential of our species as we look to coexist peacefully with other humans, the planet, and the new advents in technology. In these defining times, we need creativity that serves positive, prosocial, and transformational purposes. In this chapter, we extended the three-Cs conception of giftedness (Chowkase & Watve, 2022) to the study of creativity. We presented the three components of our model as they relate to creativity, *viz*., competence, commitment, and concern for others, with a focus on concerned or transformational creativity. By proposing the 3Cs model of creativity and our pilot educational program, we hope to continue and extend the scholarship on the timely theory of transformational creativity. With *concerned creativity*, we might have a chance to counteract *concerning creativity*. The time for *creativity that cares* is now.

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