



# Positive Creativity and the Intentions, Discretion, Problem Finding, and Divergent Thinking That Support It Can Be **Encouraged in the Classroom**

Mark A. Runco



Creativity Research & Programming, Southern Oregon University, Ashland, OR 97520, USA; runcom@sou.edu

Abstract: This article begins by presenting a definition of positive creativity. This definition is based in part on the standard view of creativity, which points to originality and effectiveness. A brief discussion of the distinction between benevolent creativity and malevolent creativity indicates that intentions should also be required of positive creativity. Intentions may seem like difficult things to monitor in the classroom, but several useful methods are described herein. The suggestions that are offered here to support positive creativity involve divergent thinking and decision making. The most novel claim in this article is that positive creativity may involve not just problem solving but also problem finding. A second important claim is that educators must be prepared to take the good with the bad. More specifically, when creativity is encouraged, students are likely to think in truly divergent directions, which means they may offer negative as well as positive ideas. Educators should be prepared for ideas that they themselves do not understand. Practical suggestions are offered, including the recommendation that educators should encourage careful decision-making about what constitutes a worthwhile problem (as well as how to solve such problems in a creative fashion). Quite a few instances of malevolence take the form of pseudo-problems. These must be recognized as such and attention must be directed instead to the significant problems that do plague society, such as the climate crisis, the protection of voting rights, and racial discrimination. Positive creativity is needed now more than ever before.

**Keywords:** problem finding; malevolent creativity; positive creativity; self-actualization; authenticity; neutral creativity; intentions; decision-making; brainstorming



Citation: Runco, M.A. Positive Creativity and the Intentions, Discretion, Problem Finding, and Divergent Thinking That Support It Can Be Encouraged in the Classroom. Educ. Sci. 2022, 12, 340. https:// doi.org/10.3390/educsci12050340

Academic Editors: Robert J. Sternberg, Sareh Karami and James Albright

Received: 2 February 2022 Accepted: 4 May 2022 Published: 12 May 2022

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affil-



Copyright: © 2022 by the author. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/).

# 1. Introduction

There are many reasons to examine positive creativity. Creativity plays an enormous role in what Dumas and Grajzel [1] recently called "shaping our world," and positive creativity might ensure that good health and a high quality of life dominate our future. The Handbook on Human Flourishing contains this:

"... it is easy to flourish when the individual can creatively solve problems. Much the same logic is used in the discussion of adaptability and creative thinking. Self-actualization is recognized because it has been associated with both creativity and the highest form of psychological health. Divergent thinking, one kind of creative thinking, is brought into the discussion because it describes how ideas may be generated, some of which are original and creative. Divergent thinking is very clearly tied to flourishing, for it allows an individual to identify the fullest range of options and possibilities. Divergent thinking is not linear and does not lead in only one direction, but instead branches out so the individual has more freedom, more latitude, and a very full set of choices which add richness to life.". [2] (p. 1)

Creativity has been instrumental in human progress throughout history [3] and is likely to have an even larger impact on our future [4,5]. The world is changing quickly, Educ, Sci. 2022, 12, 340 2 of 13

and memorization, which was in the past a vital intellectual skill, is no longer as important. Memorization is much less important than thinking for oneself, adapting, and creative cognition. The creative tendencies that support human flourishing are of particular importance. With all of this in mind, a Special Issue that is devoted to positive creativity is especially welcome.

Somewhat surprisingly, negative creativity seems to have been discussed in the literature more frequently than positive creativity [6,7]. That may be due to the fact that some expressions of negative creativity, including the "dark side" and malevolent creativity, are salient and thus capture our attention, much the same way that ghastly news attracts attention and is more easily remembered than pleasantries. Some data suggest that there is a "bad news bias," at least in the media [8]. This may be a reflection of the "if it ain't busted, don't fix it" attitude: malevolence is certainly a problem and as such should be addressed. Perhaps that is why there appears to be more research on the dark side than on benevolent creativity. We can hope that in the natural environment there are as many expressions of positive creativity as there are of negative creativity, even if the latter is more salient, attention-grabbing, and memorable. True, the suggestion of a bad new bias, like all observations in popular media, is not based on huge amounts of empirical data. Thus such observations are useful as illustrations and examples, not as evidence. More rigorous studies are of course also cited in the present article and throughout this Special Issue. Taken together, these articles should support and increase human flourishing.

The present article begins by offering a tentative definition of positive creativity. It then explores the specifics of that definition and refines it. Positive creativity is contrasted with negative creativity and malevolent creativity. Most important is the discussion of the processes underlying positive creativity. These involve intentions and are critical because efforts to support positive creativity (e.g., in the classroom) must target its underlying processes. If teachers target the processes that underlie positive creativity, the likelihood that students will display positive creativity will increase. There is a caveat, however, which is also explored below in the section on "taking the good with the bad." Briefly, if we want to encourage positive creativity in our students, a fair amount of tolerance is required.

### 2. Definitions

The tentative definition that was mentioned above holds that positive creativity involves original and effective thought and behavior. These lead to benefits, including better health, higher quality of life, and progress. The benefits may be for the individual, for others around the individual creator, or for society at large. The first part of this definition—requiring originality and effectiveness—follows from the standard definition of creativity [9]. Each of those two requirements is actually a sort of umbrella: originality may be manifested as novelty or unconventional behavior, for example, and effectiveness may be utility, fit, or appropriateness. Given that all studies of creativity require a definition of creativity it will probably be no surprise that there have been a number of refinements. Bruner [10] for example, went into detail about the different kinds of effectiveness that are related to creativity. Even more important are the various extensions of the standard definition which propose requirements in addition to originality and effectiveness. One especially useful extension was proposed by Kharkhurin [11]. He argued that it was necessary to add aesthetic value and authenticity to the definition of creativity so that it would apply across cultures (also see Tan [12,13]). Such cross-cultural application would no doubt help if we are to find ways to support a kind of positive creativity that is broadly meaningful.

The addition of authenticity to the definition brings us right back to positive creativity. That is because authenticity is recognized in theories of self-actualization, and self-actualization is (a) indicative of good health and (b) tied to creativity. Rogers [14] and Maslow [15] both believed that creativity is one of the keys to self-actualization and, further, that self-actualization is in turn the highest form of psychological health. Rogers went as far as to claim that creativity was inextricable from self-actualization. This line of work, as well as other research on the relationships between creativity and health [16], confirms

Educ. Sci. 2022, 12, 340 3 of 13

that creativity is a positive thing. Research on creativity and health does hint at the need to "take the good with the bad", as was mentioned above. There are instances where creativity has been associated with ill health as well as positive health [16,17]. Nonetheless, the association of creativity with self-actualization does offer one example of how creativity can be a very favorable quality.

A more explicit view of positive creativity can be found in the research on creativity in the moral domain [18]. The Special Issue of the Creativity Research Journal that was devoted to this topic contained quite a few examples of positive creativity, such as Oskar Schindler's efforts which saved Jews from the Nazis. This line of work includes a clear definition of negative creativity, and that in turn adds precision to the definition of positive creativity. Consider in this regard the work of Clark and James [19] on the impact of justice on creativity. They examined negative and positive creativity as outcomes and concluded that "those unjustly treated demonstrated significantly more negative creativity as assessed by total numbers of ideas generated for doing devious harm to another" (p. 311, emphasis added). James, Clark, and Cropanzano [20] followed this with additional data that were also based on outcomes. They went into more detail and described negative creativity as that which "can be categorized by intent to harm, hinder, harass, destroy, or achieve unfair or undeserved advantage" (p. 212). They were quite interested in organizations so they later added sabotage, theft, and exploitation to the list of examples of negative creativity. They also identified expressions of positive creativity in organizations, including methods to boost employee morale, improve product creation, reduced health costs, and attractively market ideas. They described environmental influences on creativity (i.e., modeling, tasks, roles, climate, culture, structure, decision making, rewards, group processes, and stressors) and individual influences (i.e., strategies, motivation, emotion, personality, technical skill, and social skills). Kapoor and Khan [21] also reported an empirical study of negative creativity, with small correlations between negatively creative behaviors and "the dark triad" of traits (i.e., narcissism, psychopathology, and Machiavellianism).

The research that is summarized above typically relied on outcome measures. That is true of much of the creativity research, although the outcomes are often labeled "products" [22,23]. A focus on products does allow for objective measurement because products (e.g., ideas, patents, publications) can be counted. The problem is that data about products do not tell us much about the underlying processes. This is a concern because an explanation of creativity, be it positive or negative, must include process. Creative outcomes result from a process, and if processes are ignored there is little if any explanatory power. Without explanatory power, the methods that are used (e.g., in the classroom) may not really work.

This concern is especially acute when the interest is in positive creativity. That is because a focus on products can tell us little about the intentions that direct the process. True, there are observations about creativity that results from chance or serendipity [24,25], both of which occur without relevant intentions, but the creativity here is attributed to the breakthrough after the fact. This kind of historical perspective is unable to take intentions into account. If intentions are mentioned, there are gaps and potential biases. Autobiographical accounts are plagued by many of the same problems as self-reports (e.g., socially desirable responding). When biographical sources are used the biographer must rely on inference to determine intentions. These concerns are well recognized in the debate in the field of literary criticism concerning "the text." Some literary critics believe that a book can only be judged by examining the writing itself—the text and only the text. They emphasize problems with inferences about things like intentions. The other side of the debate holds that a book cannot be judged without taking historical context and an author's intentions into account.

Penicillin is an oft-cited example of serendipity because, the story goes, Alexander Fleming came back from a vacation and found that mold had grown on a slide that was contaminated with staphylococcus, and the mold seemed to be preventing the spread of the staphylococci. This example really is more about discovery than creativity, but what is most important may be that Fleming was doing research on staphylococcus. The mold

Educ. Sci. 2022, 12, 340 4 of 13

was unintended. You might say that that Fleming intended to learn about it, even if what he discovered what not what he expected, but it could be that he intended to explore one thing but was open-minded enough to recognize something else that seemed important.

The thing I wish to emphasize is that intentions are not often taken into account but are critical in determining if acts are positive or negative. As a matter of fact, both Gruber and Wallace [18] and Runco [26] emphasized the role of intentions in their works on moral creativity. Similarly, Clark and James [19] were quite clear that *malevolent creativity* can only be distinguished from *negative creativity* by taking the associated intentions into account. The former is intentionally harmful. The same logic applies to positive creativity. Intentions must be taken into account.

Some creative acts may be neutral and not positive or negative. Sternberg and Chowkase [27] previously mentioned neutral creativity, but they emphasized the perceptions of it. Here the emphasis is on the underlying intentions. Neutral creativity is that which is not intended to benefit nor to harm but instead is merely intended to be creative. Creative individuals are often motivated to be unconventional, to explore new things, to be creative—and harm and benefit play no role in the decisions that underly their creative efforts. Immersion in the creative process is what drives them. Such immersion may be akin to the flow experience [28], at least in that there is no motive outside of the experience itself. The immersion is all-important. This is apparent in the deviation amplification which Gruber [25] found in his studies of highly creative people (e.g., Charles Darwin) as they experimented with themes and topics within their work. Gruber found that creative people often had a breakthrough and then tried all kinds of minor variations in order to better understand what they had found. There is also Weisberg's [29] description of intentional novelty. This too is unrelated to harm or benefit. Weisberg suggested that this kind of intention, which is entirely directed at originality, is more important than effectiveness when defining creativity.

#### 3. Methods for the Classroom

If the argument for including intentions is accepted, what methods might be used by educators who wish to support positive creativity? Piaget [30] was aware of the importance of intentions and developed a method with which to study them. This led him to conclude that more mature children or adolescents take more than just the consequences of an act into account when judging right and wrong. Less mature children take only consequences into account and are unable to process intentions, much like they are unable to think about hypothetical things. Thus, if someone breaks a vase, the mature child will not see it as bad if the break occurred while cleaning the house. The intent was to clean, not to intentionally break the vase. A younger child will only look at the broken vase and decide that whomever broke it did a bad thing. Piaget called his method *empathic inference*. He observed children and inferred what they were thinking. Piaget felt that he could take the child's perspective and thus empathize.

The research on decision making [31] might provide educators with specifics for their observations of (and empathic inferences about) students. Albert [32], Runco et al. [33], and Sternberg [34] have all pointed to the critical role of decision making in the creative process. In Albert's [32] words,

"Creativity begins with and is expressed through the decisions one makes, not through the particular media used or the products generated. . . . An individual's knowledge of self and particular aspects of his or her world is the ultimate medium of creative behavior, for knowledge determines decisions as much as opportunities. In fact, it is on the basis of one's knowledge that one can perceive and identify one's opportunities. To the extent that deliberate efforts and decisions have to be made in career choices and performances, then to that degree one can say that personalized knowledge is a major component of creative and eminence-achieving work". (p. 19)

Educ. Sci. 2022, 12, 340 5 of 13

Intentions should be apparent in the decisions that students make and their reasons for those decisions. Given the interest in positive creativity, educators should be especially alert for decisions that are made by students that reflect prosocial concerns. Educators should also take note of decisions that reflect malevolent creativity, expressed in those things mentioned above, namely an "intent to harm, hinder, harass, destroy, or achieve unfair or undeserved advantage." Decisions indicating transactional creativity [35] would also be a concern.

Another method that might be used by educators is suggested by Kohlberg's [36] work on moral reasoning. Kohlberg believed that moral reasoning changes with age and matures from preconventional tendencies to conventional tendencies and finally to postconventional capacities. At first children are unable to process laws, mores, and other social conventions. With the right experiences they develop the capacity to process conventions and they eventually mature such that conventions are recognized but the individual also thinks for him- or herself. Kohlberg suggested that the development of more mature moral reasoning could be encouraged by asking children to work on moral dilemmas while in groups. The children should discuss the details of the dilemmas and exchange perspectives about what should be done if faced with a particular dilemma. A dilemma that is presented to children and used for this kind of thing may be something like, "you see one of your brother's friends damage something on your school campus and wonder if you should inform your teacher, even though he is a friend of your brother's." A dilemma has two options, which in this instance involve either ignoring the vandalism because the culprit is a friend of your brother or informing a teacher because the damage was an act of vandalism. This sort of thing supposedly creates a kind of cognitive disequilibrium which in turn forces the student to think things through. Kohlberg, like Piaget, believed that such active cognition leads to intellectual growth. The suggestion here is that educators could have students work in groups in which they are asked to share their perspectives and talk about challenging tasks. This may provide information about the students' intentions and decision-making tendencies.

Jaussi and Topaloglu [37] were explicit about how intentionality can be modified in the classroom:

"Intentionality is not a fixed personality trait of a person, but rather a skill that one can develop over time with a better understanding of the notion. It is a helpful tool in early education and development of individuals. . . . Educators' intentions and ability to provide a creative environment for students to develop creative solutions contribute to individual's intentionality. Additionally, educators should also adopt an intentionality perspective to their own behaviors to provide role modeling". (p. 673)

This suggests that there is a benefit to merely helping students to understand what intentions are. It also suggests that modeling should be added to the list of methods that should be considered by educators.

Yet another approach involves divergent thinking (DT). Methods for encouraging the DT of students underscore what was briefly mentioned earlier, that educators must be prepared to take the good with the bad. In order to explain, the basics of DT must be summarized. The earliest operational description of DT was introduced as part of the *structure of the intellect* [38]. Most of that theory was eventually rejected, in part because the empirical demonstrations supporting it relied on dubious statistical methods. The concept of DT was a small part of the original theory, but several researchers, most notably Torrance [39] and Wallach and Kogan [40], refined the testing methods. The resulting empirical results have stood the test of time. By no means is DT synonymous with creativity, but results from DT tests have proven to be informative about the potential for creative problem solving. DT tests are acceptably reliable and, when administered and scored correctly, they offer scores which are moderately (0.3 < 0.5) correlated with various criteria of creative performance [41]. Tests of DT offer information about originality—one part of the standard definition of creativity—as well as flexibility and fluency with ideas.

Educ, Sci. 2022, 12, 340 6 of 13

DT tests are open-ended and ask students to generate a number of ideas rather than one solution. These tests are not like most academic tests which have single correct answers. Because there is no one single correct answer, DT tests allow students to be original. That originality may result from an associative process. Students might be asked to "list as many round things as you can think of," for instance, and their thinking may lead them to baseball, then baseball cap, a person's head, eyeball, pupil, cones, and so on. An associative path may lead in divergent directions and branch out. That is probably how original ideas are usually found, with thinking that diverges from the original ideational pathway. It is good, then, when there is an interest in originality and thinking in a divergent fashion. It may in fact be necessary to diverge if one is to find highly original ideas. If a student sticks with a conventional associative pathway, he or she may only find ideas that other people think of, which means that there will not be much originality.

This is all relevant because positive creativity must involve originality and because one method that is used with DT tasks might be adapted in order to gather information about the intentions of students. I am referring to *think aloud* research (e.g., [42]). This is just what it sounds like: examinees talk while they work on DT problems. Their statements are then examined. This can be done systematically with a protocol (or content) analysis. Khandwalla used think aloud and protocol analysis and reported that the DT of his sample reflected feelings, searching, problem structuring, evaluating, and ideating. Quite possibly students' intentions could be inferred from an examination of their think aloud statements.

The open-ended nature of DT tasks underscores my claim that educators must be prepared to take "the good with the bad." This in turn implies that educators will need a particular kind of *tolerance*. If students are encouraged to think divergently, they are likely to be original in the sense that they will think of things that are not conceived by parents and educators. When students are original, they are likely to think of things that parents and teachers do not understand. They may even think of things that bother parents or teachers! But if the goal is to allow students to think divergently, all of those things are good in that they reflect students' capacity for DT and originality. You might say that the thinking of students is indeed diverging and as a result it goes to places that are unexpected. The originality that is required for creativity—positive, negative, and neutral—is often found in such unexpected places.

Anyone who has used the brainstorming method is familiar with the need for tolerance. Brainstorming is explicit about the goal of quantity over quality. It also requires the postponement of judgment. Judgment is not eliminated, just postponed. Members of a brainstorming group must not judge ideas that they do not understand. They must tolerate a wide range of ideas because all ideas contribute to the goal, which is a large quantity of ideas. Individual team members may not understand some of the ideas, but all of the ideas are respected, at least until the point of evaluation, which comes later.

Here again it is apparent that decision making is involved in creative thinking. It is also apparent why creativity is best viewed as a complex or syndrome [43,44]. It is not a unitary thing. It may involve divergent thinking, originality, decision making, and intentions. Each should be targeted when educating for positive creativity.

#### 4. Identifying Problems That Are Worth Solving with Positive Creativity

One additional part of the creativity complex should be brought into this discussion about educating for positive creativity. I am referring to *problem finding*. The research on problem finding is fairly extensive (see the collection that was edited by Runco [45] or the recent meta-analysis by Alabbasi et al. [46]) but we can begin here with its relationship with DT, given that DT was already defined above.

For years, the research on DT relied on methods whereby problems were presented to the examinee. Children worked on open-ended problems but they did not identify the problems for themselves. DT tasks were administered like other tests, which entail presenting tasks to students. Then Wallach and Kogan [40] demonstrated that DT tasks require a special administration procedure. This involves giving instructions to students so

Educ. Sci. 2022, 12, 340 7 of 13

they know that DT tasks are not like academic tests. When DT tasks are given with such *game-like instructions* and the students are informed that originality is expected, that there are no correct answers, and that they can take their time and be playful, originality scores increase dramatically [47]. Students who are unoriginal when the tasks were given with *test-like instructions* immediately become noticeably original [40].

A second innovation in the administration of DT tests allowed students to define tasks for themselves. This followed from the research on problem finding [48,49]. We have since discovered that students' engagement is high if they are involved in the identification of problems [50,51]. Wakefield [49] and Runco et al. [33] developed DT tests that allow students to define a task before they solve it. Results from their research indicated that problem definition and problem solving are only moderately correlated. Indeed, there are students who excel at one but not the other.

Problem finding does not depend on DT. Even before the structure of the intellect was proposed, the creative process was described in terms of stages, starting with preparation, then moving to incubation, illumination, and finally verification. (Sometimes an implementation stage is also included, especially if there is an interest in innovation.) Evidence suggests that problem finding is one aspect of the preparation stage. Problem finding occurs before problem solving and cannot occur if problems are presented rather than discovered. Problem finding is an umbrella term and may include problem identification and, after that, problem definition and redefinition. There is much to be said for finding good problems. Getzels [52], for example, claimed that creative solutions require creative problems.

Problem finding is an important part of the creative process and students should have opportunities to practice it—or practice "them," given that both problem identification and problem definition would be helpful. This is particularly true because there are problems in society, right now, which should be defined such that they will allow solutions displaying positive creativity. Unfortunately, at present, a great deal of social attention is being given to negative creativity, even malevolent creativity, when what we really need is positive creativity. Problem finding, which includes problem identification, was brought into this article because malevolence can be seen in both the problems being publicized as well as the solutions to the pressing problems (e.g., the climate crisis and poverty). For this reason, education should help students develop good problem identification skills, as well as good problem solving skills. Relating this to the material that has already been reviewed, you could say that educators should help students to make good decisions and thereby avoid "solving the wrong problems." Malevolent problems exemplify wrong problems.

The situation is dire because malevolent creativity is so common. It frequently takes the form of proposing a problem where one does not exist. Consider, for example, the frequent claims by one of the two main political parties in the USA that voter fraud occurred in the 2020 Presidential election. In many States this same party has proposed and is passing laws that are intended to solve the problem of voter fraud. Yet there is no evidence of voter fraud. There is no real problem. Evidence is entirely lacking. A number of recounts of votes were conducted, for example, and no evidence of fraud was found. (To be precise, the level of fraud was far below what could even be called negligible. And what fraud was found was typically initiated by individuals who belonged to the party that leveled the accusations!) There were also audits, with the same results, and most of these were conducted by officials in the same political party as the groups which insisted on the audits and claimed that there was fraud. There were also over 60 lawsuits concerning the ostensible voter fraud and, in discovery, no evidence of voter fraud was found. All of the lawsuits rejected the claims of voter fraud. Apparently, individuals running for office in other countries have started to refer to voter fraud, so this (false) problem is not limited to the USA.

Voter fraud is a pseudo-problem and is being used as a kind of propaganda by certain extremists in order to distract voters from real problems. In that light this situation exemplifies what Sternberg [27] referred to as transactional creativity. This is the label that is given to creative efforts which are intended to benefit the creators. In 2020–21 one

Educ. Sci. 2022, 12, 340 8 of 13

political party pointed to the ostensible voter fraud as a problem and thus hoped to bring a free and fair election into question so that their candidate could be sworn in, even though he (a) had 8 million fewer votes than the winner and (b) lost in the Electoral College. They have continued with this "Big Lie" about voter fraud with the goal of justifying changes to election processes that would favor their candidates in all future elections. This sort of thing was original in that it had never been done before. It was effective, at least in that it persuaded millions of voters that there were problems in the 2020 election, even though there were none. And it was an example specifically of malevolent creativity because the intention was to do harm (i.e., to disregard the will of the people and the majority of the votes in order to avoid certifying the candidate who received the largest number of votes and more than enough votes in the Electoral College). Note that the tactic boils down to suggesting that there is a problem (i.e., voter fraud) when there is not. More and more often, in the USA and around the world, malevolence takes the form of creating pseudo-problems. An example from outside of the USA involves the Ukraine war. Putin apparently has many Russians believing that his invasion was justified because there were Nazis in the Ukraine.

There are real problems facing society. These are the ones that students should learn to recognize as worth solving. One of them was created by the "Big Lie" and unjustified claims of voter fraud. These claims led to voter suppression. Given that voting is at the heart of democracy, voter suppression is really an attack on democracy. Positive creativity should be tapped in order to solve the problem of voter suppression and to find ways that all eligible citizens can participate in democracy by voting (e.g., making election day a national holiday).

The malevolence that was described above involves problem mis-identification (or the identification of pseudo-problems). The solution is to help students learn to discriminate between real problems and problems that are malevolent and harmful, such as the ostensible voter fraud or Nazis in the Ukraine. Apparently, such an ability of discrimination is lacking among millions of citizens. Millions have begun to believe the "Big Lie" about voter fraud. They believe the propaganda and ignore the evidence. (In Russia such evidence is hidden from citizens; the Free Press has been eliminated.) Many citizens apparently do not realize that they are supporting the dismantling of democracy, even though by supporting the "Big Lie" they are supporting the position that votes should not determine the outcome of an election. They are ignoring evidence and not realizing that the real problem is the propaganda and the attack on democracy. Another way of describing the problem is that many citizens do not have the critical thinking skills that are required to recognize what constitutes evidence and what does not. Our educational system must change so that citizens have the necessary critical thinking skills, as well as the various creative skills that are being detailed here (i.e., problem identification, discrimination, decision making). Creative thinking is an important goal for education, but it is not the only goal.

#### 5. Pseudo-Problems in Education

Another area in which there is a pressing need for positive creativity, in part because malevolent creativity is at work, actually involves education. Consider the following:

"In the aftermath of the brutal murder of George Floyd by former Minneapolis police officer Derek Chauvin in 2020, the nation underwent a racial awakening that forced Americans to recognize our nation's enduring legacy of racial inequity and injustice. . . . Now conservatives are seeking to put the blinders back on and hope critical race theory (CRT) will be the mask. This academic school of thought, developed in the 1970s and 1980s... addresses how racial biases and inequities are perpetuated through laws, policies and institutions that adversely impact how people of color are treated in such areas as criminal justice, employment, education, housing, and healthcare". [53]

Attacks on CRT, like attacks on voting rights, represent another instance of malevolent creativity. CRT is another pseudo-problem. The title of Wilson's [53] article, which is quoted above, sums it up quite well: "Critical Race Theory is the Republicans' Dangerous Boogeyman

Educ. Sci. 2022, 12, 340 9 of 13

in the Culture Wars They are Waging." CRT is a boogeyman, a distraction; the real problem is racial injustice. Some extremists do not want that to be addressed in the schools so they point to a CRT. For them, CRT being taught in the schools is a problem—even though it is actually never taught in the schools.

Wilson [53] went on to describe how bigotry has led a few extremists to find a decadesold academic theory and present it as if it was a valid problem. In Wilson's words,

"CRT is a complex academic movement studied almost exclusively in law schools and graduate programs, yet its critics, who refuse to acknowledge that racism exists in American society, have worked overtime to spin it into a boogeyman that is haunting our nation's K-12 classrooms. They falsely claim that CRT is being used to teach children to hate our nation, indoctrinate white children into thinking they are oppressors and make Black children feel like victims, sparking fears and divisions that could have a chilling effect on how history is taught in public schools."

Martin Luther King Jr.'s daughter, Reverend Bernice King, has recognized the attacks on CRT as the creation of a false problem. In her speech at the King Center (named after her father) in Atlanta, GA in January 2022, she stated, "CRT is not the problem. Racism is the problem. ... This is not a Black issue. This is a democracy issue" ([54], italics added).

To make matters worse, a bill that was introduced in Florida early in 2022 is intended to avoid the teaching of anything in the classroom that makes white students feel discomfort. In other words, those proposing this new bill do not want white people to feel any discomfort by learning the facts of history. I am not exaggerating with that wording. I am paraphrasing the bill, which was approved by the Florida State Senate Education Committee and supported by Governor Ron DeSantis (19 January 2022). It would "prohibit public schools and private businesses from making white people feel 'discomfort' when they teach students or train employees about discrimination in the nation's past." This bill has received its initial approval by the State [55]. It is actually an attempt by extremists in Florida to deny factual history and indoctrinate students. In a sense, the individuals who support this bill are trying to create a reality in which racial injustice did not occur. They are rejecting evidence and pointing to one problem (discomfort) when, in reality, there is another problem (racial injustice). As an aside, one commentator reacted to the bill by saying that, if the objective is to minimize discomfort, the teaching of algebra should be banned.

The same denial of facts and rejection of historical fact is readily apparent in the all-toofrequent skepticism about the scientific evidence surrounding COVID. The real problem is that COVID is contagious and, without vaccination, often deadly. But the vaccine mandates are part of President Biden's policy and individuals who wish to remove Biden from office have created a different problem. They claim that the mandates which are in place in order to curtail the spread of COVID-19 inhibit their personal freedom. The problem, in their eyes, is that a vaccine mandate is contrary to the Constitution and the freedoms that it grants. In actuality, the Constitution does not grant the freedom to spread disease nor to harm others. The Supreme Court has been clear that causing harm to others is excluded from the First Amendment rights. In 1919, Justice Oliver Windell Holmes gave the analogy of yelling "fire" in a crowded theater. That is not covered by the First Amendment because of the probable harm it may cause. Then there is the historical record: vaccine mandates have been used since George Washington required them of his troops. Students in USA are routinely vaccinated for measles, mumps, polio, small pox, and so on. My father, a WWII veteran, was vaccinated 13 times when he enlisted and multiple times during his tours of duty.

In each of the examples above, there is a problem, but one political party (or extremists within it) do not like to admit it and do not want time and money to be invested in solutions. For that reason, they identify and publicize other problems. In each case, the substitute problem is just a deflection. Evidence does not support any of those pseudo-problems.

Educ. Sci. 2022, 12, 340 10 of 13

One more example, involving wind energy, should be given because of the urgency of the real problem—the climate crisis. A huge amount of data indicate that humanity is running out of time. Carbon emissions need to be reduced immediately. Sadly, the coal industry is largely against such clean energy and many coal business owners have donated heavily to politicians who vote against alternative sources of energy, including wind. The real problem is the climate crisis and the environmental destruction that is resulting from burning coal, but the problem that is preferred by one of the major political parties in the USA, and the 45th President of the United States, is that wind turbines make a noise that causes cancer! There is zero evidence for this, but sadly, some people have listened. Cancer from wind turbines is another pseudo-problem that was malevolently created.

Both political parties in the USA mis-identify problems. Levin [56] made this point with his article, "Democrats, Voting Rights are not the Problem." He wrote,

"Some Republicans insist that the process of counting and certifying the vote in some states was corrupt in 2020. There is no evidence—none—to support any specific claims on this front.... Republicans want more safeguards and boundaries around voting. They say that greater security is essential to making sure only eligible people vote and that long voting periods and different methods to cast ballots risk enabling fraud and distorting the meaning of elections. They also assume that lower turnout will help the right win more elections, and some of the restrictions they want to impose (like limiting Sunday voting), frankly, reek of the racist practices long used to deny the vote to Black Americans and other minorities." (Italics added).

Levin [56] not only described pseudo-problems such as voter fraud but also acknowledged that the Democrats have also identified the wrong problem. Note also that some extremists seem to be intentionally creating problems that distract, problems that have no substance, while the Democrats who are mentioned by Levin [56] are just making a mistake. The intentions are quite different. Levin concluded that what is needed is transparency throughout the voting process rather than voter suppression (by one side) and a new Voting Act (on the other).

#### 6. Discussion

This article suggests that students should be given opportunities to think divergently and that educators should "take the good with the bad" so that their students can explore highly original lines of thought. Students should also have opportunities to exercise their discretion so that they know which problems are worth solving and which (such as the pseudo-problems that were mentioned above) are not. Some challenges that are involved in targeting the intentions of students were acknowledged and various methods were proposed. Decision-making exercises were suggested as a means for identifying the good intentions that are vital for positive creativity. Positive creativity was defined as that which is original and effective, the effectiveness of which is apparent in some sort of benefit for others or for oneself. Authenticity and self-actualization, which are sometimes associated with creativity, were given as examples of positive creativity. Positive creativity was contrasted with neutral creativity and malevolent creativity. One small point: since positive creativity may provide a benefit to the individual, and individuals could benefit by taking from and thus harming others, a definition of positive creativity that allows for personal benefit should include a caveat, namely that it is positive only if the personal benefit is not harmful to others.

Several examples from current events, including voter suppression and the climate crisis, were given to make the point that problem identification should be one of the creative skills that is supported in the classroom. Students need practice identifying real problems and practice identifying problems that involve malevolent creativity, such as propaganda and deflection. The employment of problem finding skills can support the creative thinking of students as well as their discretion and decision-making skills. The use of problem finding tasks in the classroom will also help to engage students in the creative

Educ. Sci. 2022, 12, 340 11 of 13

process, given that they will have some say in the matter of which problems are to be solved. Students will be more intrinsically motivated if they work on problems that they themselves discover rather than only those problems that are presented to them.

One of the key points in this article is that problem identification is part of the creative process but is distinct from problem solving. Positive creativity will help to solve problems, such as the climate crisis, but educators need to do more than support problem solving. They also need to support problem identification. Creative thinking should be directed at real problems, problems that require solutions that will benefit society. Thinking about creativity as a process, positive creativity may involve problem finding, and after that, problem solving.

Some of the suggestions that are offered here have been previously discussed. Divergent thinking, discretion, and problem finding have all been previously recommended to educators (e.g., [45]). Intentions have not been discussed very often but are central to positive creativity. Several useful perspectives on intentions were cited above, including those of Albert [57], Gruber and Wallace [18], and Weisberg [29]. Further support for the possibility of working with intentions can be found outside of creative studies. There are quite few investigations of *entrepreneurial intentions*, for example, and entrepreneurship is strongly related to (and may depend on) creative skills. Then, there is the legal system which relies quite heavily on being able to determine, in reliable fashion, if and when there is "criminal intent" [58]. It is tempting to again refer to the 45th US President on that point, but I will refrain.

Society is in need of more positive creativity. Some of this should come from leaders [59] but most must come from the individuals in the population at large. Everyone will benefit from positive creativity, both in terms of societal progress but also individual health and well being. There is much that educators can do to support the positive creativity of their charges.

**Funding:** This research received no external funding.

Institutional Review Board Statement: Not Applicable.

**Informed Consent Statement:** Not Applicable.

Data Availability Statement: Not Applicable.

**Conflicts of Interest:** The authors declare no conflict of interest.

## References

- 1. Dumas, D.; Grajzel, K. Measuring up: Aligning creativity assessment with the Standards. In *Handbook of Creativity Assessment*; Runco, M.A., Acar, S., Eds.; Elgar: Cheltenham, UK, 2022.
- 2. Runco, M.A. Creativity and human flourishing. In *Oxford Handbook of the Positive Humanities*; Tay, L., Pawelski, J.O., Eds.; Oxford Handbooks Online: Oxford, UK, 2022. [CrossRef]
- 3. Boorstin, D.J. The Creators: A History of Heroes of the Imagination; Random House: New York, NY, USA, 1992.
- 4. Montuori, A.; Donnelly, G. Creativity and the future. In *Encyclopedia of Creativity*; Runco, M.A., Pritzker, S., Eds.; Elsevier: Oxford, UK, 2020; pp. 250–257. [CrossRef]
- 5. Runco, M.A. We must prepare for the unforeseeable future. In *Creative Intelligence in the 21st Century: Grappling with Enormous Problems and Huge Opportunities*; Ambrose, D., Sternberg, R.S., Eds.; Springer: New York, NY, USA, 2016; pp. 65–73.
- 6. Cropley, D.H.; Cropley, A.J.; Kaufman, J.C.; Runco, M.A. (Eds.) *The Dark Side of Creativity*; Cambridge University Press: New York, NY, USA, 2010.
- 7. McLaren, R.B. The dark side of creativity. Creat. Res. J. 1993, 6, 137–144. [CrossRef]
- 8. Sacerdote, B.; Sehgal, R.; Cook, M. Why is all COVID-19 news bad news? *Natl. Bur. Econ. Res.* **2020**. Available online: https://www.nber.org/system/files/working\_papers/w28110/w28110.pdf (accessed on 19 January 2022).
- 9. Runco, M.A.; Jaeger, G. The standard definition of creativity. Creat. Res. J. 2012, 24, 92–96. [CrossRef]
- 10. Bruner, J. The conditions of creativity. In *Contemporary Approaches to Creative Thinking*; Gruber, H.E., Terell, G., Wertheimer, M., Eds.; Atherton: New York, NY, USA, 1962; pp. 1–30.
- 11. Kharkhurin, A.V. Creativity.4in1: Four-Criterion Construct of Creativity. Creat. Res. J. 2014, 26, 338–352. [CrossRef]
- 12. Tan, C. Creativity and confusius. J. Genius Eminence 2016, 1, 79–84. [CrossRef]
- 13. Tan, C. Confusianism. In *Encylcopedia of Creativity*, 3rd ed.; Runco, M.A., Pritzker, S.R., Eds.; Elsevier: Oxford, UK, 2020; pp. 195–198. [CrossRef]

Educ. Sci. 2022, 12, 340 12 of 13

- 14. Rogers, C.R. Towards a theory of creativity. ETC Rev. Gen. Semant. 1954, 11, 249–260.
- 15. Maslow, A.H. Creativity in self-actualizing people. In *The Creative Question*; Rothenberg, A., Hausman, C.R., Eds.; Duke University Press: Durham, NC, USA, 1973; pp. 86–92.
- 16. Runco, M.A.; Richards, R. (Eds.) Eminent Creativity, Everyday Creativity, and Health; Ablex: Greenwich, CT, USA, 1997; pp. 359–377.
- 17. Ludwig, A.M. The Price of Greatness; Guilford Press: New York, NY, USA, 1995.
- 18. Gruber, H.E.; Wallace, D. (Eds.) Creativity in the moral domain. Creat. Res. J. 1993, 6, 1–2. [CrossRef]
- 19. Clark, K.; James, K. Justice and Positive and Negative Creativity. Creat. Res. J. 1999, 12, 311–320. [CrossRef]
- 20. James, K.; Clark, K.; Cropanzano, R. Positive and Negative Creativity in Groups, Institutions, and Organizations: A Model and Theoretical Extension. *Creat. Res. J.* 1999, 12, 211–226. [CrossRef]
- 21. Kapoor, H.; Khan, A. The Measurement of Negative Creativity: Metrics and Relationships. *Creat. Res. J.* **2016**, *28*, 407–416. [CrossRef]
- 22. Rhodes, M. An analysis of creativity. Phi Delta Kappan 1961, 42, 305–310.
- 23. Runco, M.A. A hierarchical framework for the study of creativity. New Horiz. Educ. 2007, 55, 1–9.
- 24. Diaz de Chumaceiro, C.L. Research on Career Paths: Serendipity and Its Analog. Creat. Res. J. 1999, 12, 227–229. [CrossRef]
- 25. Gruber, H.E. The evolving systems approach to creative work. Creat. Res. J. 1988, 1, 27–51. [CrossRef]
- 26. Runco, M.A. Moral creativity: Intentional and unconventional. Creat. Res. J. 1993, 6, 17–28. [CrossRef]
- 27. Sternberg, R.J.; Chowkase, A. When We Teach for Positive Creativity, What Exactly Do We Teach For? *Educ. Sci.* **2021**, *11*, 237. [CrossRef]
- 28. Csikzentmihalyi, M. The domain of creativity. In *Theories of Creativity*; Runco, M.A., Albert, R.S., Eds.; Sage: Newbury Park, CA, USA, 1990; pp. 190–212.
- 29. Weisberg, R.W. Response to Harrington on the Definition of Creativity. Creat. Res. J. 2018, 30, 461–465. [CrossRef]
- 30. Piaget, J. To Understand is to Invent; Penguin: New York, NY, USA, 1976.
- 31. Nisbett, R.; Ross, L. Human Inference: Strategies and Shortcomings; Prentice Hall: Englewood Cliffs, NJ, USA, 1980.
- 32. Albert, R.S. What the study of eminence can teach us. Creat. Res. J. 1996, 9, 307–315. [CrossRef]
- 33. Runco, M.A.; Johnson, D.; Gaynor, J.R. The judgmental bases of creativity and implications for the study of gifted youth. In *Investigating Creativity in Youth: Research and Methods*; Fishkin, A., Cramond, B., Olszewski-Kubilius, P., Eds.; Hampton Press: Cresskill, NJ, USA, 1999; pp. 113–141.
- 34. Sternberg, R.J. Creativity as a decision. Am. Psychol. 2002, 57, 376. [CrossRef]
- 35. Sternberg, R.J. Transformational Creativity: The Link between Creativity, Wisdom, and the Solution of Global Problems. *Philosophies* **2021**, *6*, 75. [CrossRef]
- 36. Kohlberg, L. The development of moral judgment and moral action. In *Child Psychology and Childhood Education: A Cognitive Developmental View*; Kohlberg, L., Ed.; Longman: New York, NY, USA, 1987.
- 37. Jaussi, K.S.; Topaloglu, E. Intentionality. In *Encyclopedia of Creativity*; Runco, M.A., Pritzker, S., Eds.; Elsevier: Oxford, UK, 2020; pp. 672–677.
- 38. Guilford, J.P. Creativity, Intelligence and Their Educational Implications; EDITS/Knapp: San Diego, CA, USA, 1968.
- 39. Torrance, E.P. Why Fly; Ablex: Norwood, NJ, USA, 1995.
- 40. Wallach, M.A.; Kogan, N. Modes of Thinking in Young Children: A Study of the Creativity-Intelligence Distinction; Holt, Reinhart: New York, NY, USA, 1965.
- 41. Acar, S.; Runco, M.A. Divergent thinking: New methods, recent research, and extended theory. *Psychol. Aesthet. Creat. Arts* **2019**, 13, 153–158. [CrossRef]
- 42. Khandwalla, P. An exploratory investigation of divergent thinking through protocol analysis. *Creat. Res. J.* **1993**, *6*, 241–259. [CrossRef]
- 43. MacKinnon, D. Personality and the realization of creative potential. Am. Psychol. 1965, 20, 273–281. [CrossRef]
- 44. Mumford, M.D.; Gustafson, S.B. Creativity syndrome: Integration, application, and innovation. *Psychol. Bull.* **1988**, 103, 27–43. [CrossRef]
- 45. Runco, M.A.; Nemiro, J. Problem finding, creativity, and giftedness. Roeper Rev. 1994, 16, 235–241. [CrossRef]
- 46. Alabbasi, A.M.A.; Paek, S.H.; Cramond, B.; Runco, M.A. Problem finding and creativity: A meta-analytic review. *Psychol. Aesthet. Creat. Arts* **2020**, *14*, 3–14. [CrossRef]
- 47. Acar, S.; Runco, M.A.; Park, H. What should people be told when they take a divergent thinking test? A meta-analytic review of explicit instructions for divergent thinking. *Psychol. Aesthet. Creat. Arts* **2020**, *14*, 39–49. [CrossRef]
- 48. Csikszentmihalyi, M.; Getzels, J.W. Concern for discovery: An attitudinal component of creative production. *J. Personal.* **1970**, *38*, 91–105. [CrossRef]
- 49. Wakefield, J.F. Towards creativity: Problem finding in a divergent thinking exercise. Child Study J. 1985, 15, 265–270.
- 50. Keniston, K. Young Radicals; Harcourt, Brace & World: New York, NY, USA, 1968.
- 51. Runco, M.A.; Okuda, S.M. Problem discovery, divergent thinking, and the creative process. *J. Youth Adolesc.* **1988**, *17*, 211–220. [CrossRef]
- 52. Getzels, J.W. Problem finding and the inventiveness of solutions. J. Creat. Behav. 1975, 9, 12–18. [CrossRef]

Educ. Sci. **2022**, 12, 340 13 of 13

53. Wilson, F. Critical Race Theory is Republicans' Dangerous Boogeyman in the Culture War They're Waging. Miami Herald. Available online: https://www.yahoo.com/news/critical-race-theory-republicans-dangerous-011925225.html (accessed on 19 January 2022).

- 54. Thanawala, S. King's Daughter Slams Twisting of Critical Race Theory; Associated Press: New York, NY, USA, 2022. Available online: https://apnews.com/article/voting-rights-joe-biden-lifestyle-united-states-georgia-29d4418343269e76a43d8c8fadbf1bb8 (accessed on 19 January 2022).
- 55. Farrington, L. Florida Could Shield Whites From 'Discomfort' of Racist Past. Available online: https://www.nbcmiami.com/news/local/florida-could-shield-whites-from-discomfort-of-racist-past-2/2663709/ (accessed on 19 January 2022).
- 56. Levin, Y. Democrats, Voting Rights are not the Problem New York Times. Available online: https://www.nytimes.com/2022/01/03/opinion/voting-rights-democrats.html (accessed on 3 January 2022).
- 57. Albert, R.S. Identity, experiences, and career choice among the exceptionally gifted and eminent. In *Theories of Creativity*; Runco, M.A., Albert, R.S., Eds.; Sage Publications: Thousand Oaks, CA, USA, 1990; Volume 115, pp. 13–34.
- 58. Hogan, P.C. On Interpretation: Meaning and Inference in Law, Psychoanalysis, and Literature; UGA Press: Athens, GA, USA, 2008.
- 59. Sternberg, R.J. ACCEL: A new model for identifying the gifted. Roeper Rev. 2017, 39, 152–169. [CrossRef]