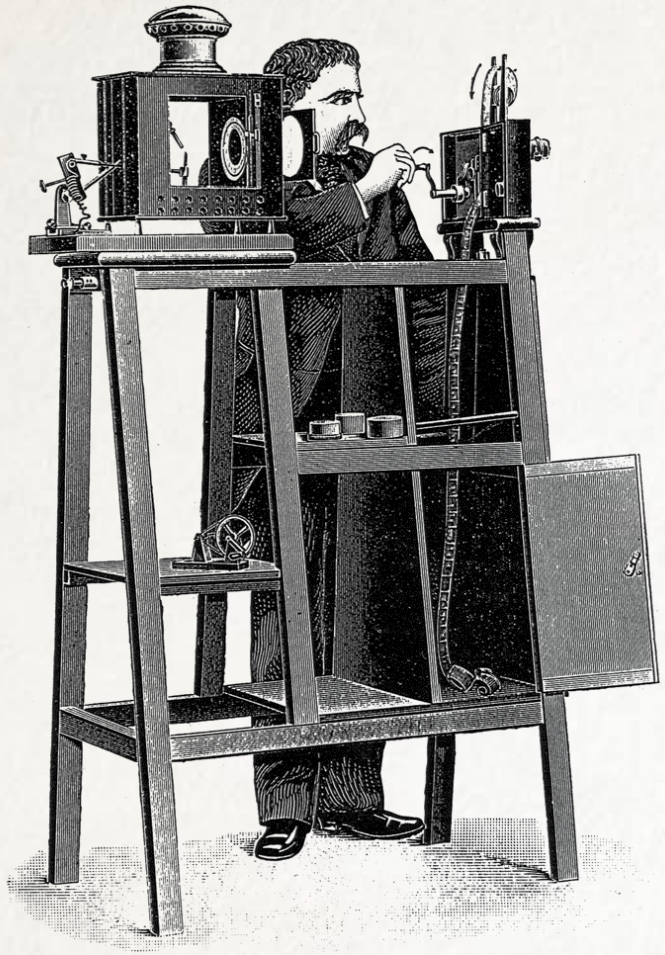


CREATIVITY, EMOTIONS AND THE ARTS

Zorana Ivcevic
Jessica Hoffmann
Marc Brackett
Botín Foundation

Abstract

This chapter discusses the emotionally complex processes important for creativity and describes the social function the Arts can play in developing creativity.

It is asserted that for increases in creative achievement to happen two things are necessary: people need to have the attitude of openness (looking at the world with interest and receptivity) and that they need to develop skills to manage the emotions that inevitably accompany creative work.

First, different kinds of creativity are discussed; then the role of emotions in the creative process is examined, and finally the chapter proposes how the Arts can be a medium through which people can learn to use and manage their emotions to foster daily creativity.

At the end, this chapter explains how these approaches will be applied in the programmes for the development of creativity through the arts which will be run at the Botín Centre in Santander.

CREATIVITY, EMOTIONS, AND THE ARTS

Creativity is more important than ever. Global climate change is putting demands on societies rich and poor. Need for energy is increasing. Even the developed Western countries are straining under the stress of changing economic realities. None of these challenges can be solved in familiar ways. The challenges of the 21st century require new ways of thinking, making it crucial for educators and policy makers to understand the processes of creative thinking and achievement. In this chapter we discuss the emotionally complex processes important for creativity and describe a social function that the arts can play in developing creativity.

When people hear the word creativity, most often they first think of the arts. Both art making and art appreciation are deeply emotional processes. The arts take us on a rollercoaster ride of sadness, tranquility, and anguish. Pablo Picasso, one of the most creative artists of the 20th century, saw artists as receptacles for emotions and vehicles for transforming felt emotions into tangible works of art (Picasso, 1988). But emotions are not only important for artistic creativity. Invention and innovation in all domains of human endeavor, from scientific research to business entrepreneurship, are filled with frustration at many dead ends, puzzlement at the unknown, excitement about new problems to examine, and the elation of eventual success. In this chapter, we assert that for increases in creative achievement to happen, two things are necessary – people need to have an attitude of openness (looking at the world with interest and receptiveness) and they should develop skills to manage the emotions that inevitably accompany creative work. First, we discuss different kinds of creativity. Then, we examine attitudes toward creativity, the role of emotions in the creative process, and finally, we propose how the arts can be a medium to teach people to use and manage their emotions to foster creativity.

Let us pause for a moment and examine what we mean by creativity. What can be creative? Psychologists study the creative person, creative process, and creative products and throughout this chapter we will refer to all three ways of understanding creativity. When psychologists are interested in studying creative people, they want to learn who are the creators – what they are like or how we can describe their traits, skills and life experiences. The study of the creative process answers how a person thinks and works – how they discover problems worth pursuing, how they approach these problems, and how they address them. Finally, creative products can be ideas, performances or items created by individuals or groups. The generation of products is key in discussing creativity – without it, we are talking only about imagination that does not take flight.

Creative products are both original and appropriate (Plucker, Beghetto, & Dow, 2004). Consider a news report about a new skyscraper in London (Bill, 2013). The building was designed by renowned architect Rafael Viñoly and nicknamed the “walkie-talkie”. Unfortunately, the design included a curved wall of reflective glass, which focused the sun’s rays and melted parts of cars and set things on fire. While the design might have been original, it was not appropriate for the city setting and therefore is not a good example of creative architecture. Meanwhile, engineers have designed solar power plants using the curved glass design, laying fields of mirrors to focus the sun’s light to heat gas, power pistons and create electricity (Walsh, 2013). In the context of energy production, using curved glass panels is both original and appropriate, and therefore deemed a creative innovation, unlike the “walkie-talkie” building.

It is often difficult to tell what makes a creative product. Is it the choice of colors in a work of art? Is it the composition? Is it the subject matter? Teresa Amabile, psychologist at the Harvard Business School, noticed that people tend to agree on whether something is creative

TERESA AMABILE, PSYCHOLOGIST AT THE HARVARD BUSINESS SCHOOL, NOTICED THAT PEOPLE TEND TO AGREE ON WHETHER SOMETHING IS CREATIVE OR NOT

or not. For example, before the release of the iPad, it did not seem likely that it would be a big success. The iPad seemed to be an oversized iPhone; it did not have a keyboard that would be useful for writing documents or longer e-mails, it was not small enough to be carried in one's pocket, and it was expensive. When analyzed feature-by-feature, it did not appear to be particularly original or useful. Still, upon its release in 2010, over 3 million iPads were sold in 80 days and it continues to be the most popular tablet computer around the world. The iPad was deemed to be one of the 50 best inventions of 2010 by *Time* magazine and the "top gadget" by *Popular Science*. It is hard to say what exact features made this product innovative, but there is a clear consensus that it is creative.

In spite of the challenges in defining creativity, psychologists have devised ways to study creative individuals, their creative process of creation, and the ideas and products they create. This research points to four ways people can be creative (Kaufman & Beghetto, 2009). At the most basic level, there are creative moments which might only be original to the individual, such as when a child experiments with building blocks. Then, there is everyday creativity which is evident in interactions and activities of daily life, such as when one is playing music with friends or when devising a way to help a child struggling with homework. More skill and knowledge is necessary for professional creativity. For instance, a teacher who develops a curriculum to teach kids how to resolve conflicts with peers or your cousin, who opens a restaurant fusing Spanish and Italian cuisine, both show professional creativity. Finally, eminent creativity describes individuals who change a domain of work or even a culture at large, such as Albert Einstein or Bill Gates. We are especially interested in creativity that both contributes to society and is accessible to large numbers of people – everyday and professional creativity.

Who are these creative individuals? They are individuals working in various domains, from an innovator designing a new smart phone, to a scientist developing a new treatment for depression, and a manager improving her team's productivity. Creative people have a number of personality characteristics that set them apart from others. They are open to new experiences, curious, and unconventional (Feist, 1999; Ivcevic, 2007; Ivcevic & Mayer, 2009; King, Walker & Broyles, 1996; McCrae, 1987) and they often have artistic and intellectual interests as children (Helson, Roberts & Agronick, 1995). These personal attributes are shared by creative individuals in diverse domains, from the arts to sciences and technology.

CREATIVE PEOPLE HAVE A NUMBER OF PERSONALITY CHARACTERISTICS THAT SET THEM APART FROM OTHERS

We have asked an even more fundamental question in understanding who is likely to be creative – how people see the world and whether they want to be creative. When facing a choice about how to approach a problem or task, people, either consciously or not, ask themselves whether they want to be creative and whether the benefits of being creative are greater than the risks associated with it. By way of example, when a social entrepreneur realizes the need to develop children's critical thinking skills, she has to decide that she does not want to look away from this problem. She has to decide to make a commitment to work on this problem and look for innovative solutions. Similarly, a marketing executive who sets out to create an ad campaign to promote a new clothing line has to decide whether to do something similar to previous campaigns or to be original and expose herself to the risk of the campaign not being well received.

Our studies with secondary school and university students show that there are three kinds of attitudes towards life and work that are relevant for creativity. One kind of attitude focuses on anticipating negative emotional consequences of creativity. Students are concerned that people might think original ideas are silly, that sharing creative ideas exposes them to ridicule, and

they worry about being perceived as disrespectful or angering others if they suggest original ideas. The second kind of attitude focuses on preventing negative consequences of sharing creative ideas. This is an "it is better to be safe than original" attitude. Students believe that they should be creative only when they might feel psychologically safer, such as when they are more senior or have fully mastered a domain of work. Many teachers encounter this attitude when students ask about the exact steps they need to follow in order to get the highest possible grades. Finally, the third kind of attitude is welcoming to creativity and emphasizes that working on open-ended projects feels important and meaningful. We found that when students hold this open attitude, they are both more motivated to work on creative projects and willing to work hard. Thus, if we aim to increase creativity, it will be necessary to shift people's attitudes toward creativity from apprehension to curiosity.

... THERE ARE THREE KINDS OF ATTITUDES TOWARDS LIFE AND WORK THAT ARE RELEVANT FOR CREATIVITY

EMOTIONS IN THE CREATIVE PROCESS

How does the creative attitude – observing the world with curiosity and receptiveness – translate into creative thinking and doing something creative? Knowledge and thinking skills are crucially important in the creative process. People have to be able to come up with many different ideas and imagine possible solutions to challenging problems. To do that, they usually need extensive knowledge of a domain of work. Knowledge of electrical engineering, for example, is necessary if one is creating a design for an electric car. But the creative process is also fraught with emotion. Josephine Cochrane was frustrated at her housekeepers chipping valuable china while washing the dishes. She decided that if no one else was going to invent a machine to wash the dishes, she would do it. Indeed, she transformed this frustration and eventually came up with the first workable dishwasher (Fenster, 1999). To another person, frustration will not be a source of inspiration in identifying important problems and will instead lead to anger. Thus, emotions can both be beneficial or detrimental to the creative process.

HOW DOES THE CREATIVE ATTITUDE – OBSERVING THE WORLD WITH CURIOSITY AND RECEPTIVENESS – TRANSLATE INTO CREATIVE THINKING AND DOING SOMETHING CREATIVE?

... EMOTIONS CAN BOTH BE BENEFICIAL OR DETRIMENTAL TO THE CREATIVE PROCESS

Scholars agree that there are several common steps in the process of creation (Amabile, 1996; Wallas, 1926). A person has to identify a problem, gather the relevant information and resources, generate ideas, evaluate the value of the ideas, and finally decide whether the process is complete, needs to be repeated or should be abandoned. These steps are not linear and occur in varying orders, such as when learning or preparation leads to recognizing a problem. For example, a teacher might realize that her students do not read a lot and that this is not good for their education and development. The teacher has thus identified a problem and committed to it. In her frustration, the teacher could resort to simply requiring students to read more for class or just give poor grades to students who do not do the required reading. Instead, the teacher decides to be creative. She gathers information about students' interests and finds books that address these interests. She generates ideas about how to interest children in these books by having them act out different characters, invent games inspired by the books, and write new adventures of students' favorite characters. The teacher tries out these ideas in class and observes whether students start reading more books. If there is a group of students who still do not read much, the teacher talks to them and comes up with additional ideas of how to engage them.

To date, most research studying emotions in the creative process has examined how different moods help or hinder idea generation. Alice Isen and her colleagues at Cornell University (Estrada, Young, & Isen, 1994; Isen, 1999; Isen, Daubman, & Nowicki, 1987) brought university students to a lab and induced either positive or negative moods by playing upbeat or gloomy music or by asking them to think of happy or sad events in their personal lives. Then, the participants were asked to complete tests of creative thinking. In one test, they were asked to find something that was common to a set of three concepts. For example, what do "salt", "deep" and "foam" have in common? The hidden link is "sea". In another test, people had to devise a way to fasten a candle to a corkboard wall and light it without the wax dripping on the floor using only a candle, a box of tacks and a book of matches. People had to figure out that they could take the tacks out of the box and use the tack box as a candleholder. In general, these studies showed that people who were made to feel happy were more flexible and original in their thinking than those in neutral or sad moods.

TO DATE, MOST RESEARCH STUDYING EMOTIONS IN THE CREATIVE PROCESS HAS EXAMINED HOW DIFFERENT MOODS HELP OR HINDER IDEA GENERATION

If being happy is key to coming up with creative ideas, how did all the eminent artists and scientists who are not known for being very cheerful manage to be creative? Some researchers have suggested that rather than looking at the influence of positive or negative emotions, the focus should be on which emotions energize a person to act (Baas, De Dreu & Nijstad, 2008). For example, a painter in a positive mood may feel content with his painting and choose to end the creative process, missing out on more original ideas that could have come about later if he had continued to work on the painting. On the other hand, a painter who is feeling dissatisfied with a project might be pushed to put in more effort and persist longer, leading him to be more creative. It may be that a person must first experience a negative emotion that causes them to act, which is then replaced with more positive emotions as the creative process unfolds (Bledow, Rosing & Frese, 2013).

... PEOPLE WHO WERE MADE TO FEEL HAPPY WERE MORE FLEXIBLE AND ORIGINAL IN THEIR THINKING THAN THOSE IN NEUTRAL OR SAD MOODS

ONE EMOTION THAT CONSISTENTLY INHIBITS CREATIVE THINKING IS UNMANAGED ANXIETY

One emotion that consistently inhibits creative thinking is unmanaged anxiety. As stated by the renowned Spanish theatre director Albert Boadella:

> "I have a pen and I write something but as if I didn't have a job. I try to be as relaxed as possible. When I am feeling tension, I block. So I try to be as a sponge so that things flow through me".

Yet, despite the harmful effects of unmanaged anxiety, embarking on a creative process is often filled with anxiety. Facing music in need of lyrics, an empty computer screen, or a new business venture can be unnerving. A person can imagine the difficult process of creation, uncertainty of success, and anticipate others' reactions. Others' reactions to one's work can range from being irritating to devastating to infuriating. How one handles these emotions can make the difference between giving up and achieving something significant. A group of Dutch researchers (Van Kleef, Anastasopoulou & Nijstad, 2010) studied the effects of receiving angry feedback on creativity. Participants were asked to complete a test of creative thinking and then were given feedback before working on another creativity test. Among the participants who received angry feedback, some did better on the second task, while others did worse. Some people have the ability to channel angry feedback into motivation to work harder and better, while others become paralyzed and disengage from the task.

The fact that some people are better able to overcome anxiety or channel their frustration shows that people have influence over how their emotions impact on their thinking and work, and that some people are more skilled at managing their emotions than others. Based on the assumption that people can harness and influence their own emotions, our research asks how people can use their emotions to enhance creativity. Thus, we are not asking what emotions lead to creativity; rather, we are interested in *how* different emotions can be harnessed or transformed for greater creativity.

... WE ARE INTERESTED IN HOW DIFFERENT EMOTIONS CAN BE HARNESSED OR TRANSFORMED FOR GREATER CREATIVITY

A person who is able to use their emotions to help them achieve goals in their daily life can be described as emotionally intelligent. Emotionally intelligent people are able to recognize when they are feeling an emotion and label it accurately. They can tell the difference between related emotions, such as boredom and annoyance or serenity and happiness. Because they have a more nuanced understanding of emotions, emotionally intelligent people are better able to interpret the meaning of their emotions, understand the causes of emotions and manage emotions more effectively. They understand that the creative process can be emotionally difficult and they can accept these challenges. Creative work is usually complex and difficult. There are dead ends and false starts. Writer Mercedes Cebrian describes the persistence and work ethic necessary for creativity.

> "In art, you have to spend a lot of time alone and you have to be prepared to work as in any other job. It is not constant fun by any means. First of all, there is this jotting down of notes about all kinds of aspects of the real world. Then you need to sit down and to know that a lot of time will pass during the process in which nothing useful or definitive happens".

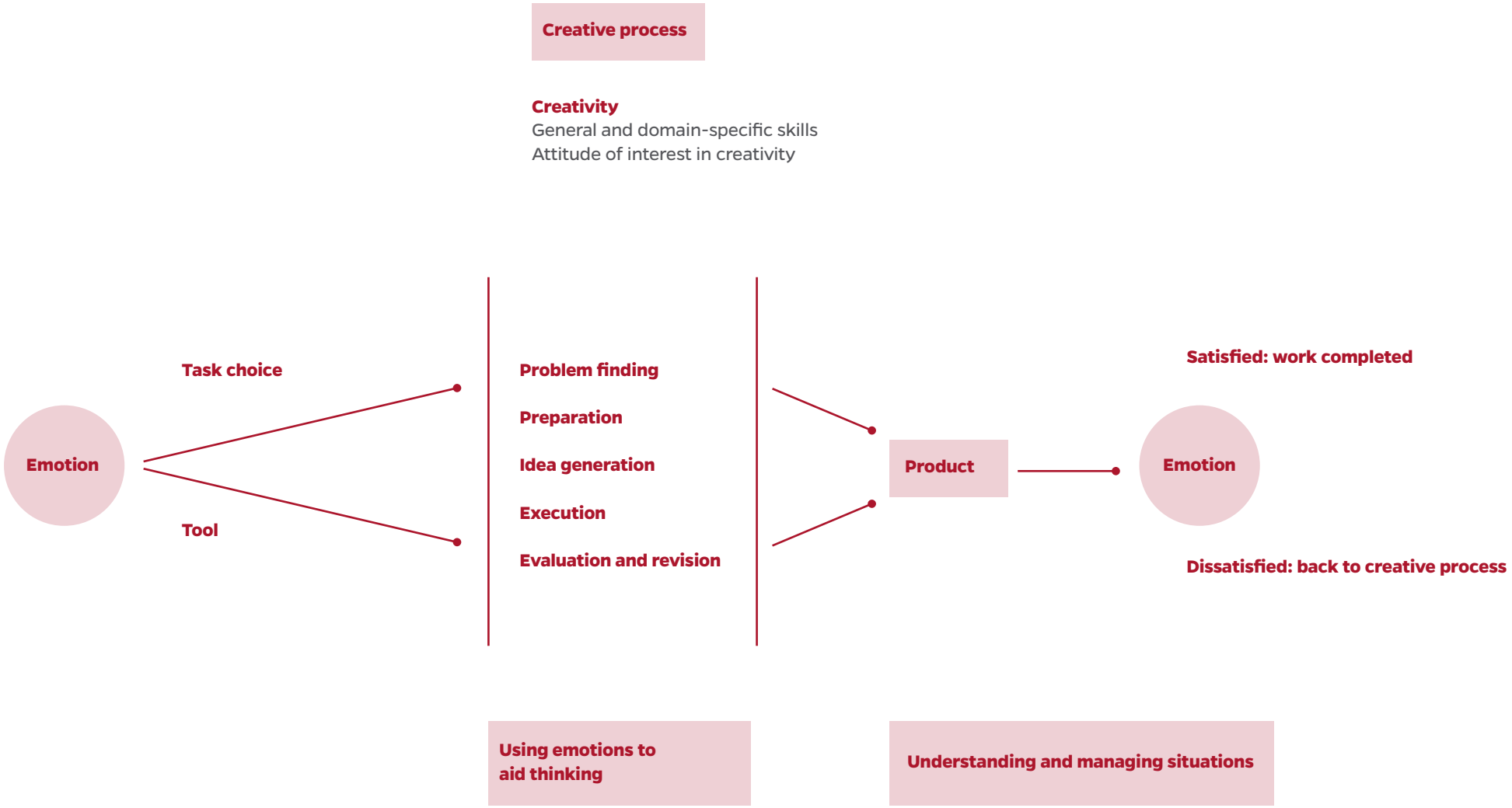
Emotional intelligence abilities have a role throughout the creative process, from finding important problems, to coming up with original ideas and persisting in solving problems despite frustration or obstacles. In other words, emotional intelligence abilities are important in how individuals navigate through the challenges of creative work. Figure 1 depicts the role of emotions and emotional intelligence abilities in the creative process. The model starts with the assumption that the key to creative production are traits, attitudes, and skills, such as openness to experience, beliefs about the importance of creativity, and a commitment to creativity. When these traits, attitudes, and skills exist, emotions can be tools and motivators of creativity and they can direct people's actions.

EMOTIONAL INTELLIGENCE ABILITIES HAVE A ROLE THROUGHOUT THE CREATIVE PROCESS, FROM FINDING IMPORTANT PROBLEMS, TO COMING UP WITH ORIGINAL IDEAS AND PERSISTING IN SOLVING PROBLEMS DESPITE FRUSTRATION OR OBSTACLES

What does the emotionally intelligent creative person do when facing a lifeless lump of clay or a new business project? Artist Carsten Holler described how he gets started on a new project and pointed to the importance of a balance between allowing his mind time to wander freely and being attentive to potential ideas or sources of inspiration.

> "You see somebody going by with a dog and then watch this person. Then you start to think about him and his dog and what kind of food the dog eats. Then you start thinking about dog food. And then you go on like this into infinity. But then, suddenly, there is another thing, an idea coming in and it is not possible to say in words what it is".

Figure 1. Model depicting the role of emotional intelligence skills in the individual creative process



More often, working around constraints leads to creativity. For instance, when people are asked to design a toy, they are more creative if they are constrained by having to use all of the specified building blocks than if they have more freedom to choose how many and which building blocks to use (Moreau & Dahl, 2005). Both allowing the mind time to wander (and thus putting off active work) and having significant constraints can induce anxiety. Emotionally intelligent individuals are better able to manage unpleasant emotions arising during the creative process, which can lead to new problems or redefining old problems. In turn, the way one frames the problem can lead to creative solutions. In one study, school-aged children were asked to make a drawing entitled "Playing Tag in a School Yard". Some students took the title literally, whereas others viewed the prompt as a starting place and reformulated the problem to allow themselves to be more creative. For example, one student drew ghosts tagging the school with various labels, while another student handed in a blank piece of paper with the modified title "Playing Tag in a School Yard – During a Blizzard" (Getzels & Jackson, 1962).

MORE OFTEN, WORKING AROUND CONSTRAINTS LEADS TO CREATIVITY

In another study, Getzels and Csikszentmihalyi (1975) set up an art studio in their laboratory at the University of Chicago and invited art students to create still-life drawings by choosing from among 30 available objects. The researchers observed the artists as they picked out objects, arranged them and completed the drawings. Some artists spent more time than others picking up the objects, feeling their weights and textures, and trying to work mechanical parts of the objects. Researchers called this process problem finding – artists spent time playing with objects and ideas of what to draw before they committed to a specific still life. These artists remained open to how they would structure the still life and delayed making a decision about what to draw. In the end, the artists who spent the most time problem finding made the most creative drawings.

Engaging in prolonged problem finding can be emotionally challenging. The unknowns of what to work on or how to approach a task are often disconcerting. People differ in how much of this discomfort they are willing to endure. Psychologists call this willingness to endure uncertainty "tolerance of ambiguity" and find that it is closely related to creativity (Helson & Pals, 2000; Lubart & Sternberg, 1995). Emotionally intelligent individuals can anticipate the emotional discomfort during problem finding, but are also better able to cope with these feelings. In a fast moving world where most people work on multiple projects with significant time constraints, substantial skill is needed to manage anxiety in the face of deadlines and allow oneself time for problem finding and idea exploration.

IN A FAST MOVING WORLD WHERE MOST PEOPLE WORK ON MULTIPLE PROJECTS WITH SIGNIFICANT TIME CONSTRAINTS, SUBSTANTIAL SKILL IS NEEDED TO MANAGE ANXIETY IN THE FACE OF DEADLINES AND ALLOW ONESELF TIME FOR PROBLEM FINDING AND IDEA EXPLORATION

Emotional intelligence abilities are also necessary to transform emotions into motivators of creative activity. For example, boredom can lead to a desire for passive entertainment or even destructive behavior, such as drug use (Csikszentmihalyi, 1993; Hunter & Csikszentmihalyi, 2003). Alternatively, boredom can inspire a person to seek challenges in creative work, as illustrated by writer Mercedes Cebrian:

> "I suffered from great boredom, but I think that's quite positive. Now as adults we don't get as bored, there isn't time for boredom. I spent the months of my summer school holidays as a child really

> bored. This is where you had to be inventive to find things to do. [*As an adult*] Other situations, like weddings or funerals, are moments of real boredom. There is no way to escape. So I take advantage of this for my writing. Boredom doesn't need to exist if one can take advantage of it. But I also think it's negative, and most importantly, unrealistic to avoid boredom because I suppose it's really the fear of being alone with oneself and with one's own thoughts. In my opinion, boredom puts you into contact with your own self".

Another way that people can use emotions to help creativity is by matching their emotional state to the tasks that would benefit from a certain mood. People in sad moods tend to think more critically; thus, sad moods can help with tasks that require critical and analytic thinking. On the other hand, people in happy moods are better able to quickly come up with interesting and playful ideas; thus, happy moods can help with brainstorming tasks that require original thinking in a short amount of time. In a series of studies, Cohen and Andrade (2004) demonstrated that some people consciously match their moods to benefit the tasks they face. They brought university students into the lab and showed them various video clips to make them experience different emotions. Participants were then either told they would be performing a task requiring precise analytic thinking or a task generating creative and imaginative ideas. Participants were given a choice to listen to happy or sad music before working on these tasks. By listening to music, people could make their mood either more positive or more negative. Many people decided to listen to upbeat music when they were told they would work on a brainstorming task and sad music when they were told they would work on an analytical task.

ANOTHER WAY THAT PEOPLE CAN USE EMOTIONS TO HELP CREATIVITY IS BY MATCHING THEIR EMOTIONAL STATE TO THE TASKS THAT WOULD BENEFIT FROM A CERTAIN MOOD

This study showed that people do not manage their moods only to make them more positive, but that they also consider how useful different emotions are for what they have to do. Some people decided to change their initial mood and make it more negative because sad moods are helpful in performing critical thinking tasks. Others chose to make their mood more positive because happy moods can help with generating original ideas. However, not all people matched their emotions to the tasks awaiting them, demonstrating that not everyone has an understanding of which moods benefit different tasks. The theory of emotional intelligence posits that individuals who have the ability to use emotions to help thinking understand the influence of moods on performance and can apply this understanding in their work (Salovey, Mayer, & Caruso, 2002). By intentionally choosing to work on tasks that require critical evaluation or editing for quality in sad moods and tasks that require coming up with new ideas in happy moods, people should be able to complete their tasks more successfully.

After engaging in a creative task, people can feel a range of emotions, and these emotions can signal future actions. Emotions related to satisfaction signal that the creative process is over; the person solved a problem and feels good about the solution. Alternatively, emotions related to dissatisfaction or anxiety can signal that there is a problem and direct one back to the creative process. If the frustration or anxiety is too high, the person may choose to give up rather than return to the creative process. The skill of accurately labeling one's feelings and understanding the source of those emotions is helpful in this process. For example, imagine a teacher who feels frustrated at the end of each school day. If she has the ability to understand that her frustration is a result of not having all the students engaged and participating in class, she will act differently than if she cannot identify the source of her frustration. If

she decides to approach this problem creatively, she can generate possible solutions to engage students. She thinks of many solutions but decides to try offering stickers each time students raise their hands. After a few weeks there are no changes in students' participation. The teacher continues to feel frustrated. Finally, the teacher pairs disengaged students with those who are struggling and students become more engaged when they feel responsible for helping others. The teacher was able to use her frustration as motivation to identify a problem and also to continue working on the problem until it was resolved successfully.

ENHANCING EMOTIONAL INTELLIGENCE SKILLS AND CREATIVITY THROUGH THE ARTS

Pablo Picasso talked about artists being receptacles for emotions and vehicles for transforming emotions (Picasso, 1988). Similarly, the renowned director Stanley Kubrick likened film to music in that they both should be a progression of moods and feelings to which the theme and meaning are added later (Kogan, 1989). Emotions are central to all art forms, from painting and sculpture, to music, film, theatre and other arts. For some artists, this process might be unconscious and feel automatic or natural. However, emotional intelligence skills can be taught, practiced and developed (Brackett, Rivers, Reyes, & Salovey, 2012; Rivers & Brackett, 2011) and people can learn how to deliberately use their emotions as aids in the creative process. Engagement with the arts, both as art appreciation and art creation, can be a powerful teaching tool in increasing emotional intelligence abilities and creativity in one's everyday and professional life. This is the thesis central to the mission and philosophy of the Botín Centre and it is a thesis that will motivate the development of educational programs and the research on their effects.

ENGAGEMENT WITH THE ARTS, BOTH AS ART APPRECIATION AND ART CREATION, CAN BE A POWERFUL TEACHING TOOL IN INCREASING EMOTIONAL INTELLIGENCE ABILITIES AND CREATIVITY IN ONE'S EVERYDAY AND PROFESSIONAL LIFE

In collaboration with the Botín Foundation and the Botín Centre, researchers at the Yale Center for Emotional Intelligence are designing a series of workshops for children and adults using the arts as a teaching tool. Different educational programs will use visual arts, music, acting and other art forms to build creativity-relevant skills. For instance, unlike a usual trip to the museum, where people might look at each artwork for just 30 seconds, the workshop participants will be asked to look at a single work of art for a minimum of 10 minutes. People will be challenged to examine details of content, structure, composition, and color. They will be asked to explore the work of art from different perspectives, angles and distances. People will be encouraged to imagine themselves inside the work of art, thinking about the sights, sounds, smells and feelings that they would experience if they were literally inside it. Noticing details and creating a rich picture of the artwork will be then applied to learning about emotions and creative work.

This simple technique of deep observation and entering into a work of art is a common tool used by eminent creators across the arts and non-artistic domains (Root-Bernstein & Root-Bernstein, 1999, 2004). Successful actors, for instance, are able to identify with a character they are portraying and not only understand the character's emotions but also feel them as their own. Innovators in other fields also use this technique, from the animal scientist Temple Grandin who observes the world from the standpoint of cows and sheep as she is designing

THIS SIMPLE TECHNIQUE OF DEEP OBSERVATION AND ENTERING INTO A WORK OF ART IS A COMMON TOOL USED BY EMINENT CREATORS ACROSS THE ARTS AND NON-ARTISTIC DOMAINS (ROOT-BERNSTEIN & ROOT-BERNSTEIN, 1999, 2004)

animal corrals, to medical doctors who devise optimal treatment plans for individual patients.

The first goal of our multi-pronged educational programs is to enhance emotional intelligence skills. People will be asked to describe emotional content in works of art and reflect on how the artwork makes them feel. As they share their observations, people will discover that the same work can be perceived differently depending on the level of detail noticed or personal associations the work invoked, as well as learn that the same events evoke different feelings in different people. In this process, people will gain knowledge about how emotions are expressed and what information is necessary to successfully perceive emotions.

The second goal of our educational programs is to teach people to use emotions in the service of their own creative process. Imagining a real life problem as represented in a work of art, participants will gain distance from the problem and achieve a fresh perspective. People will be guided in learning about how different emotions help and hinder performance in various tasks. A person viewing a work of art depicting sadness, for instance, will be challenged to notice the kinds of thoughts that occur in this mood. Similarly, individuals will analyze how emotions like frustration and boredom influence creative work. In one activity, participants will identify a work of art that represents their problem and another work that represents a successful resolution of the problem. Then, people will be asked to imagine that the two works are the first and the third in a triptych, a series of three related paintings. They will be challenged to envision the missing painting. This process will develop associative thinking skills that are important building blocks in creativity (Russ & Dillon, 2011).

Fundamental to this applied educational work is the realization that observation skills are key to both developing emotional intelligence and creativity. The arts provide a suitable medium to teach people about emotions and creativity. Works of art – from paintings, sculptures, pieces of music, to dance and dramatic arts performances – convey emotion and are themselves a result of the creative process. While talking about one's own emotions is highly personal and uncomfortable for some individuals, works of art provide subject matter that is located outside of the person. The arts, therefore, provide the space for emotions to be examined in a psychologically safe manner. Even individuals who are concerned about the negative social consequences of exposing themselves emotionally will be able to engage in educational activities that employ the arts as a teaching tool.

... OBSERVATION SKILLS ARE KEY TO BOTH DEVELOPING EMOTIONAL INTELLIGENCE AND CREATIVITY

Our research and educational activities have the ultimate goal of enabling the emergence of two critical elements in creativity. The first is an open attitude toward creativity and the second focuses on the emotional abilities necessary to sustain effort in creative work. In this chapter, we reviewed research that shows that personality traits and attitudes of openness to creativity are necessary for creative achievement, but are not enough on their own. Importantly, emotional intelligence abilities can guide and regulate behavior during the creative process. These abilities can turn felt emotions into tools of inspiration for creativity and they can direct people's actions during the creative process. When ideas or products are generated, emotional intelligence abilities can help signal the completion

OUR ULTIMATE GOAL IS TO INCREASE SOCIETAL CREATIVITY – THE SKILLS NECESSARY TO INCREASE INNOVATION AND GENERATE DEVELOPMENT IN SOCIETY

of the creative process or a need for continued work. Our current research examines how attitudes about the importance of creativity and high levels of emotional intelligence abilities jointly contribute to creative achievement. Our goal is to envision ways to use emotion-filled works of art to help people more fully develop their emotional and creative skills. Unlike traditional arts education programs and centers, we are not primarily interested in developing artistic skills. Rather, we are interested in using involvement in the arts to enhance people's creativity in their everyday and professional lives. Our ultimate goal is to increase societal creativity – the skills necessary to increase innovation and generate development in society.

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Zorana Ivcevic is an Associate Research Scientist at the Yale Center for Emotional Intelligence. She received a B.A. from the University of Zagreb (Croatia), a Ph.D. from the University of New Hampshire and did postdoctoral work at Tufts University. Her research focuses on emotions and creativity, as well as personal identity across cultures and in online and offline social contexts. Dr. Ivcevic has collaborated with colleagues from Denmark, China, Spain and Croatia and has published work in journals such as *Personality and Social Psychology Bulletin, Journal of Personality, Applied Cognitive Psychology*, and *Creativity Research Journal*, among others. She is on the editorial board of *Psychology of Aesthetics, Creativity, and the Arts*, and serves as an Associate Editor of the *International Journal of Creativity and Problem Solving*. Dr. Ivcevic received the Award for Excellence in Research from the Mensa Education and Research Foundation for her studies on emotional intelligence and emotional creativity.

Jessica Hoffmann is a postdoctoral research associate at the Yale Center for Emotional Intelligence. She completed her undergraduate studies at Brandeis University and received her doctoral degree from Case Western Reserve University where she was awarded the Schubert Center for Child Studies, Cora Unger Brisky Endowment for her research on school interventions to enhance children's imagination and creativity. Dr.Hoffmann has collaborated with colleagues from Italy and Spain, and published in journals such as *Creativity Research Journal, Psychology of Aesthetics, Creativity and the Arts* and the *Journal of Cross-Cultural Psychology*. Dr. Hoffmann is also a trained clinical psychologist with particular interest in providing trauma-informed therapy and assessment services to inner-city children and their families.

Marc Brackett Ph.D., is Director of the Yale Center for Emotional Intelligence, Senior Research Scientist in Psychology, and Fellow in the Edward Zigler Center for Child Development and Social Policy at Yale University. His research focuses on the role of emotional intelligence in learning, decision making, relationship quality, and mental health, as well as the positive effects of emotional intelligence training on academic performance, bullying, teacher effectiveness, and school climate. He has published over 100 scholarly articles and is the recipient of numerous awards, including the Joseph E. Zins Award for his research on social and emotional learning. He is the developer of RULER, an evidence-based approach to social and emotional learning for school leaders, teachers, students, and families. Dr. Brackett serves on both CASEL's and Lady Gaga's Born This Way Foundation's research boards. Currently, he collaborates with Facebook on a large-scale investigation to both decrease and prevent bullying.

Botín Foundation. In 1964 Marcelino Botín Sanz de Sautuola and his wife Carmen Yllera, founded the Marcelino Botín Foundation to promote social development in Cantabria, in the north of Spain. The main office is located in the city of Santander, the capital of Cantabria, in what used to be the Sanz de Sautuola family's house.

Today the Foundation, chaired by Emilio Botín, nephew of the founder and the Chairman of the Santander bank, remains faithful to the spirit of its founders and after nearly 50 years of work, is Spain's number one private foundation both in terms of its investment capacity and the social impact of its programmes.

The Botín Foundation's objective is to stimulate the economic, social and cultural development of society. To achieve this, it acts in the fields of art and culture, education, science and rural development, supporting creative, cutting edge talent and exploring new ways of generating wealth. It is primarily active in Spain and especially in the region of Cantabria, but also in Latin America.

Coinciding with the Foundation's 50th anniversary, the new Botín Centre, designed by Renzo Piano, will be opened in Santander. The Botín Centre will be one of the leading art centres on the international scene that, through the arts, will contribute to the development of creativity as a way to stimulate economic and social growth.