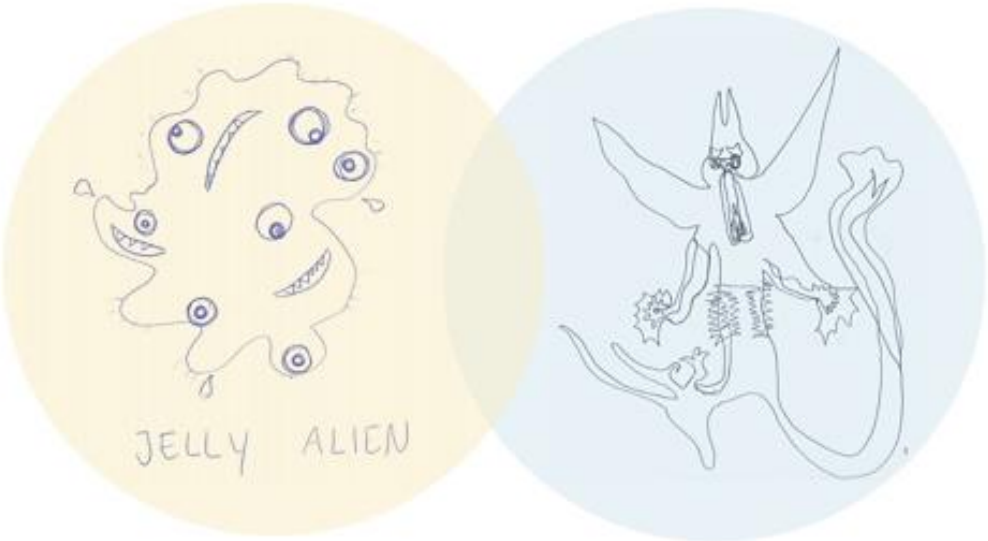
Creativity. Dishonesty.

A quantitative research on the relationship between Creative Personality and Dishonest Behaviour.



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Abstract

In the last decades, academics cast a shadow over the belief that creativity is always beneficial and intrinsically good, suggesting that creativity increases dishonesty (Gino and Ariely, 2012). Within three quantitative studies, this thesis attempts to analyse what is relationship between creative personality and dishonest behaviour and what are the other factors involved. By testing hypotheses based on literature, we found that a creative personality has a positive and significant effect on dishonest behaviour that is moderated by an honest personality (study 1). The second study (2.1) supports that creative personality is a significant predictor of dishonest behaviour and it also indicates that their connection is fully mediated by small everyday creativity. Finally, the last study (2.2) was unable to catch any significant relationship between creativity and dishonest behaviour, in contrast with the previous findings, suggesting that the connection is not doubtless. Implications, limitations, and future directions are discussed.

KEYWORDS: Creativity, Dishonesty, Creative Personality, Honest Personality, Creative Process, Creative Achievements, Dishonest Behaviour.

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1. Introduction

To Western societies, creativity is considered as a positive and beneficial trait, process and force that today like in the past, enables the survival and the innovation of our specie and our cultures (Shen et al., 2017). Creativity is mostly mentioned for its positive outcomes, at an individual level, but also for businesses (Runco, 2010). In fact, businesses of any kinds seek creative professionals to join their teams in order to be competitive in a never so global and fast market, by developing new product and services (Shalley, Zhou, & Oldham, 2004). Besides, within the academia, the ultimate ability that can be gained is to be able to generate new information by matching existing ones, skill called critical creative thinking (Krathwohl, 2002). Despite creativity undoubtedly has positive qualities for which must be boosted, it also has an inherent dark side.

In fact, literature is exploring whether there is a negative correlation between creativity and morality, thus if greater morality develops with poorer creativity. Within this field of work, scholars have been testing whether creativity leads to dishonestly. Firstly, Walczyk et al., 2008, show that creative people, due to their divergent thinking skill, are more capable to generate multiple lies and have a higher propensity to do it, as divergent thinking enhances the process of self-serving rationalization, thanks to which people tend to lie or cheat just a little bit, in order to maximize its self-interests while maintaining a positive view of himself (Gino and Ariley, 2012). During five rounds of studies, Gino and Ariely (2012) test this arguments and find that creativity boosts dishonesty by increasing the propensity to lie. Beaussart et al. (2013) support this findings, in a study where they analyse both the propensity to lie and the self-reported integrity of creative people. From the analysis of the data collected, they realize the presence of a negative correlation between creativity and self-reported personality factor of integrity (measured with the Integrity/Honesty/Authenticity, IHA). Moreover, Gino and Wiltermuth discover that not only creative people tend to behave more dishonestly, but also people that behave dishonestly in a previous task were subsequently more creative in the following task. Another research conducted by Vincent and Kouchaki (2016) finds that the relationship between creativity and dishonest behaviour might be mediated by the perceived rarity of creativity in the environment, suggesting that individuals that felt creativity to be rare in their workplace, had a feeling of entitlement, able to justify also dishonest behaviours, and were thus cheating or lying more than creative people who felt creativity to be common in their surroundings.

This thesis aims to look closer at the possible mechanism that might enable a connection between creativity and dishonest behaviour, moving from the strengths and weaknesses of the literature. By means of a quantitative approach this set of three studies aims at finding answer to the following question:

"What is the relationship between creative personality and dishonest behaviour?"

By answering the research question, this thesis wants to discover three main things. Firstly, it aims at understating whether the results gained from Gino and Ariely (2012) will be similar also in our case, thus if creative people tend to engage more frequently dishonest actions. Secondly, this paper examines whether or not creative individuals who engage in dishonest actions have a lower honest personality, based on the findings by Beaussart et al. (2013). Lastly, this thesis wants to discover if people with a high creative personality have also high creative skill, in the form of divergent thinking, and if they are better in achieving every day or professional goals. To this end, three studies have been conducted. The first study engages professionals people working in creative fields and finds that individuals with a lower score on honest personality are more creative and report to cheat more often than the others. The second study reaches students from University and shows that the relationship between the two construct exists and it is fully mediated by the small/everyday creativity of the participants. Yet, the last study does not find clear evidence of a connection between creativity and dishonesty, as the more creative students did not report or exhibit higher dishonest behaviour.

The thesis is organized as follows. After this introductory chapter, the theoretical framework first help to conceptualize the constructs of creativity and dishonesty, setting them within the field of morality, to then focus on the bright side of creativity and to investigate on the dark side of it. A critical review on the most relevant literature that found empirical support for a positive, negative or non-existent relationship between creativity and morality is then provided. The third chapter offers the methodology through which the research design was established in order to answer to the research question within the three conducted studies. Subsequently, chapter 4 presents the data analysis, and short discussions for each of the three studies. Finally, conclusions discuss about the main findings of the research, together with limitations and avenues that could be explored by future studies.

2. Theoretical Framework

This thesis attempts to enter the discussion regarding the so-called “dark side” of creativity, by adding empirical evidence and knowledge to the relationship between creativity and dishonest behaviour. The context of the current debates concerning this topic will be provided in this chapter, establishing the empirical background of the study.

The aim is to provide an exhaustive portrait of what the main findings within this controversial field of research are at the date, and why that knowledge could provide benefits both to individuals, at a micro level, and to businesses and society, at a macro level.

To this end, the literature review will first define the relevant concepts adopted. Then, this chapter will analyse two sides of the same coin, namely the most known bright side of creativity, and the dark side of it. Furthermore, previous research about creativity and dishonest behaviour, that either found a positive, negative or absent correlation among them, will be discussed.

2.1 Conceptualizing Dishonesty in the field of Morality

In order to provide a clarified vision of what is meant throughout this thesis with the concepts of dishonesty and dishonest behaviour, it is necessary to begin with defining morality, integrity and honesty, as three terms are interrelated and sometimes mixed up and used as synonymous.

Starting from the roots, it is noticeable that the conceptualization of morality is a topic as ancient as history. Firstly discussed in classical ethics, it was considered as an evolved characteristic of the human nature, which involves standards, norms, and concept such as fairness, integrity, justice and honesty (Decety and Cowell 2014; Maxwell and Narvaez, 2013, Shen et al. 2017). Moreover, morality was widely discussed by philosophers. For instance, Aristotle believed morality to be all about virtuous traits, while Hume associated it with the positive emotions and Kant considered the “good reasoning” to be the pillar of morality (Shen et al., 2017). Following and joining together those lines of reasoning, Haidt (2008) defined the concept as “a system that are interlocking sets of values, practices, institutions and evolved psychological mechanisms (e.g., conscience or superego) that can suppress or manage selfishness to make social life possible” (Haidt, 2008, p.70). Besides, Becker stressed that “morality is in the heart of integrity” (Becker, 1998).

While looking for a fitting definition of integrity, a semantic problem occurs, as this concept has been for a long time associated and even confused with the term of honesty. In fact, when Yukl and Van Fleet (1992, p.155) state that "integrity means that a person's behaviour is consistent with espoused values and that the person is honest and trustworthy", they imply that integrity and

honesty are synonymous. According to Haidt (2008), from deeper analysis of integrity, this is not necessarily the case.

Generally, honesty is considered as the refusal to pretend that facts of reality are other than what they are (Haidt, 2008). The author stresses a difference between honesty and integrity, that is "honesty is the recognition of the fact that you cannot fake existence [i.e., facts regarding the external world]," whereas "integrity is the recognition of the fact that you cannot fake your consciousness [i.e., facts regarding one's true principles and values]" (Becker, 1998, p.158). The meaning of these quotes is that while honesty requires a person not to use his/her consciousness to distort reality, integrity requests it. Furthermore, Haidt refers to the Objectivist philosophy, where integrity involves that actions are guided by a moral code that consists of rational principles. One of them is that honesty is in a rational person's best interests, with the only exception of self defense (e.g., lying to a thief). Besides, Beaussart et al. define it as " a facet of moral character that denotes the absence of lying or cheating and it is defined by a close matching of what is being experienced and what is being expressed by the individual" (Beaussart et al., 2013, p.130). Thus, honesty is a necessary but not sufficient condition for integrity; it is a trait of integrity, and morality is in the heart of integrity (Becket, 1998).

Even if defining dishonesty is not simple, as many definitions and approaches have been developed, the more complete one seems to have been proposed by Scott and Jehn (1999). The authors define the nature of the concept as follows: "dishonesty occurs when a responsible actor voluntarily and intentionally violates some conventions of the transfer of properties or information and, in so doing, potentially harms a valued being" (Scott and Jehn, 1999, p.296). Moreover, while an honest behaviour needs no explanation, a dishonest one needs excuses and apologies, and that is the main difference between them two (Scott and Jehn, 1999).

Most importantly, Scott and Jehn (1999) provide an explanation of the different factors that can influence dishonest behaviour, that can be either external factors, related to the act, the actor and the victim, or internal factors, such as traits and dispositions. Recent researches (Gino and Ariely, 2012) have been studying whether creativity is one of those influencer factors.

2.2 Theoretical Perspectives of Creativity

"What creativity is, and what it is not, hangs as the mythical albatross
Around the neck of scientific research on creativity".
Prentky, 2001

Truth is, there is not an unequivocal definition of creativity, and therefore, not a single and

incontestable way to measure it (Von Stumm et al. 2011). This, because creativity is a topic of study across many disciplines (e.g., Kaufman and Sternberg, 2010), and cultures (Kaufman and Sternberg, 2006). The literature around this topic appears to be scattered into copious theoretical definitions and debates regarding measurement approaches, that differ from one another based on which sub-category of creativity is under analysis. In order to narrow the issue and to analyse the construct, scholars have been relying on four main subcategories of creativity, namely (a) the *person* who creates, (b) the *cognitive process* involved in the creation, (c) the *environment* where creativity happens and (d) the final outcome of it, that is the creative *product* (Batey, 2006).

Accordingly, part of the researchers have been focusing on the motivations and the *personality traits* that are most commonly shared by creative people (Carroll, 1993; Batey, 2006). Advocates of the *cognitive process* approach prefer to analyse the cognitive means that enable the development of novel and useful outcomes (Finke et al, 1992). To this end, Amabile (1983) defines creativity as the ability to generate novel and appropriated ideas, while Runco (2010, p.16) "as a process that generates all of its possible expressions". The creative process consists of the following four steps: (a) the accumulation of knowledge; (b) the incubation of it; (c) the vision, or realization of an innovative solution to a problem; and lastly, (d) the transformation of that vision into a useful and novel product (McCoy et al. 2002). When the works produced are recognized to be novel and innovative by the surrounding environment, it is possible to talk about creative achievements (McCoy et al. 2002). Moving on, other studies aimed to discover what the physical and social conditions of the *environment* surrounding the innovative actor and that foster creativity are (Simonton, 1984), or what the characteristics of the *products* that make it a creative product are (Sternberg et al, 2013).

It becomes clear that creativity is a field of research highly fragmented into many approaches, each one of them developed different theories and methods to analyse it. Despite this, there are some points in common that regard the conceptualization of the construct (Shen et al. 2017). Simonton (2003) argues that it is not only difficult but also unrealistic to consider the four approaches as unrelated to one another. Specifically, he notes how the *creative process*, that lays in the cognitive part, and the *creative person*, defined by his/her personality traits, interfere persistently with one another. In a similar fashion, the creative *product* acquires much of its value when society uses it as a meaningful measure to evaluate the creativity of the *person* who made it (Davis, 2009). In fact, Amabile (1983, p.359) suggests that a product is considered creative to the extent that "appropriate observers independently agree it is creative". If the creative process and person are related, and the product is the final outcome of this relationship that is considered and

produced in a supportive *environment,* it becomes clear that the four approaches unified together can better express what the word 'creativity' truly stands for.

A well-established definition was proposed firstly by Stein in 1953, who stresses that creative *products* must be novel (i.e., original, unexpected) and useful (i.e., appropriate, adaptive to task constraints) (Runco et al. 2013). Stein also underlines that those *products* are the outcome of a *process* that re-combines existing knowledge (or materials), and that it is necessary to distinguish personal from historical creativity, as the social *environment* might not have a predictable impact (Runco et al. 2013), even if an optimal environment can foster creativity (McCoy et al. 2002).

Based on the above reflections and in relation to the scope of this research, creativity is here considered in an integrated manner, embracing the *person*, the *process* and the *product*, and the *environment* (Simonton, 2003). For the purpose of the present study, creativity is defined as "a person's capacity to generate novel and useful ideas, insights, behaviours, or products that are approved by experts in corresponding fields" (Shen et al. 2017, p.2).

2.3 The Bright Side of Creativity

The ability to generate novel and useful ideas, insights, behaviours and products has always been recognized as a meaningful skill from which both individuals and societies can benefit (Cropley et al., 2010).

Throughout the centuries, creativity has been approached for its quasi-religious function and recognized to have an inherent spiritual goodness (Cropley et al., 2010). For instance, the idea of creativity being driven by some sort of spiritual agent, such as a muse or a god that inspire the creation of an artistic product, comes from the past. In fact, both Tsanoff, who writes that "some divine principle speaks in the sage or seer or poet" (McLaren, 1993, p. 137) and Plato, who believes that all the good artists are inspired by some sort of "divine influence" (McLaren, 1993, p. 137) support this argument. The existence of a spiritual side of creativity that realizes itself within paintings, sculptures, poems and all the artistic forms, is supported also by Gammel (1946, p. 140), who even considered creativity as the unique means that can bring relief in nowadays imperfect world, where religion appears to be no longer strong and capable to offer consolation. In the same fashion, Bruner (1962) talks about creativity as the last bastion of the human spirit, in an age in which electronic devices are taking over most of the non-creative functions, meaning that creativity could be the only thing able to differentiate artificial intelligences from human beings.

Likewise, at a micro level, creativity is also recognized as a positive attribute with beneficial effects on individuals. For instance, creativity is often associated with positive personal attributes such as humour and altruism (Vaillant and Vaillant, 1990), positive well-being (Carson et al.,

1994), better mood (Amabile et al, 2005) and resilience (Metzl, 2009). Besides, this construct is associated to personality traits such as flexibility, openness, courage and high ego strength (Cropley, 2010). As the above characteristics lead the creative individual to a positive psychological development by raising levels of self-actualization, achievements and thus improving the mental health (Warren, 2008), creativity is considered as a beneficial and vital element of the human experience (Richards, 2007). Also at a micro level, it is noticeable how creativity can be adopted for a therapeutic purpose to people suffering mental problems or that, after being incriminated, are finishing their punishment and getting ready to step back into society (Singer, 2010). Yet, it is important to state that the goodness of creativity for mental health is a controversial field of study, where opposite views often struggle to find a meeting point (Runco, 2010).

Creativity is not only known for its potential benefits regarding humans, but it is also considered as one of the top economic resources and driving force of progress (Florida, 2004). In the past decades, we have been assisting a major change in the economy and in the market, due to a combination of factors, namely global competition and technological advantages. A rapid change affected many aspects of industries and businesses, especially within those categories: biotechnological (e.g., communications, health), environmental (e.g., global warming, gene modified crops), industrial (e.g., offshore manufacturing, globalization), demographic (e.g., breakdown of the family, ageing of the population), social (e.g., adaptation of immigrants, integration of minorities), and political (e.g., terrorism, achieving fairness in international relations) (Cropley et Cropley, 2005). In this landscape, creativity becomes not only useful but also crucial for societies, as it is the key that leaders can implement to avoid stagnation or even perishment (Cropley et Cropley, 2005). In fact, the strategy that businesses are following is to have a solid creative team, able to develop an innovative technological product in order to gain a competitive advantage (Peteraf, 1993).

Thus, creativity is widely recognized as a positive and valuable activity by the surrounding environment, not only for its ethical and quasi-spiritual dimension, but also because it is a vital source that fosters social and economic development. However, some scholars believe that we have been so enchanted by one side of the coin, not to be able to focus on the other one. The next section will explore a new theoretical approach that is questioning the inherent benevolence of creativity.

2.4 The Dark Side of Creativity

"Creativity, as a distinctly human preoccupation, clearly has its dark side. To be naive about this is to court disaster."

McLaren, 1993, p. 142

Creativity is mostly seen as a constructive feature. However, some scholars have proposed the existence of "negative" and "malevolent" creativity that is made to cause harm to others, while others insist on the presence of an inherent dark side of it, regardless of the intention of the person or the characteristics of the product. In order to better reflect on this issue, the division between creative product, process and person will be adopted.

2.4.1 Creative Product and Creative Process

McLaren (1993) was among the first researchers to talk about the dark side of creativity, and he canalized it into artistic, scientific and technological creativity. He believed that this issue must be analysed within the context of morality and intentionality to have a proper understanding of it. This line of reasoning was supported by James et al. (1999), who stresses that creativity is not only defined by novelty and usefulness, but it is also influenced by the creative person's intentions. For instance, the goals pursued by an individual could be motivated either by a positive or a negative purpose, and thus, creative people could develop products specifically to reach a negative aim. For those reasons, negative creativity is defined as "the creation of original products, used to meet negative goals, which are primarily beneficial to the creative individual" (Kapoor and Khan, 2016, p. 407).

Four categories where negative creativity can be seen are listed by McLaren (1993): (a) advertising, especially where it is adopted to make attractive dangerous products, such as unhealthy food, (b) entertainment, where it promotes repulsive values and behaviours, (c) politics, where it supports crime or racial hatred, and (d) science and technology, where it is applied to realize weapons of mass destruction or to damage the environment. To those areas, James et al. (1999) added the negative uses of creativity in (e) business or production, for instance, to evade regulators or to steal competitors' secrets, (f) social or working life, for instance, to avoid work, gain unfair advantage, or steal from an employer without being detected. At an everyday level it is seen when, to take those authors' example, a person finds creative ways to get others to do the hard work in a factory.

Other alternative domains in which the negative side of creativity becomes visible are (g) crime in general (e.g., Cropley, Kaufman, & Cropley, 2008), (h) war and (i) terrorism (Kapoor and Khan, 2016). For instance, some criminal projects may exhibit a "wow" factor, common to creative breakthroughs, as they generate criminal creative innovation linked to moral or spiritual darkness (Gamman and Raein, 2010, p. 158). Examples are the "innovative" terrorist attacks, such as 9/11 or

the Great Train Robbery, which are often quoted in relevant literature as examples of a criminal breakthroughs with the "wow" factor (Cropley, 2010).

What is important to stress is that even if James et al. (1999) introduced the concept of intentionality, they missed to explain whether the negative intention beyond the creative process was to deliberately cause harm to others, or not. For this reason, the process of negative creativity can only be explained as the one that meets negative goals that only in theory harm others. To solve this discrepancy, Cropley et al. (2008) introduced a new term, malevolent creativity, to represent "negative creative acts meant to deliberately harm others"(Kapoor and Khan, 2016). Examples of it can be found in crime, terrorism and wars.

However, it is true that a fully intended negative creativity may be widely supported as positive: this is what happens in wars, where the winners takes it all and the losers come out devastated (Cropley, 2010). On the other side of the spectrum, even if an undesirable outcome is foreseeable, negative creativity is not necessarily the result of deliberately evil intentions. Some people may even create evil despite generally having benevolent motives (Cropley, 2010). They may, for instance, be unable to, unaware of, or unwilling to anticipate the dark side of their work, deliberately or subconsciously blinding themselves to negative consequences. This may occur, for instance, because of their fascination with what they are doing, or because they are deceived or coerced by factors such as the prospect of money and fame or the manipulation of a despotic government (Cropley, 2010).

From this analysis it becomes clear that examples of negative and malevolent creativity are to be found in an innovative product, that was created following an aspect of the creative person, his/her intention or motivation. In fact, some scholars believe that the process is not inherently good or bad, as the dark side is only in the human motivation or in the uses of a product (Runco, 2010). However, Cropley (2010) argues that also within the creative process the inherent dark side of the creative can be found, independently from the motivations of the characteristics of the products. In fact, the creative process, also known as "divergent thinking", involves the ability to see things in a new light, changing points of views, giving multiple or surprising answers and be open to risky decisions. As this process enables the rejection of what is considered as mechanical within our society (Gamman, Raein, 2010), it is true that under certain circumstances this can lead to disruption and the level of uncertainty might be difficult to manage.

2.4.2 Creative Person

Creative people are unique not only for their artistic skills, but also because they are characterized by mental, emotional and attitudinal characteristics that are specific to them

(MacKinnon, 1962). In fact, artists are considered as "prime examples of individuals high in Openness to Experiences", (McCrae, 1987) which is one of the five fundamental dimension of personality (McCrae, 1994) and the most controversial to grasp (McCrae et John, 1992).

Creativity might be linked to certain facets of the person. For instance, many studies look at how creativity can be connected to mental illness, both at a cognitive and the mood level, as innovative people tend to suffer more than the others of diseases such as schizophrenia (e.g., Sass and Schuldberg, 2001) or bipolar and other moods disorders (e.g., Rice et al., 1987; Jamison, 1993). The relationship between creativity and mental illness is not simple and linear, as it is not clear if mental illness promotes creativity or the other way round (Simonton, 2010). Gabora and Holmes (2010), suggest that creative people tend to go where the others fear, and that may lead to an "allure of darkness" (p. 283) that makes the dark side more attractive for them.

Besides, they want to go against the crowd, creating their own identity, but this process might cross the line and lead to "maladjustment and neurosis, or manipulation, antisocial behavior, crime, or terrorism" (Gascón and Kaufman, 2010). Averill and Nunley (2010) analyze the relationship in a closer and more differentiated way by examining the nature of the link between creativity and neurosis. Essentially, they conclude that neurosis is creativity gone wrong, that is, neurosis is an example of the dark side of creativity.

Another example of the dark side of creativity, is proposed by Gino et Ariely (2012), who demonstrate that, as creative people think differently and question more, they are more likely to bend or break rules. The next section will deal more in details on this relationship that is crucial for the scope of this research.

2.5 Previous studies on the correlation among Creativity and Morality

The question of whether creativity and dishonesty are related to each other and in which ways, remains open and sets within the bigger issue of whether morality is connected to creativity (Shen et al., 2017). Thus, this section will focus on the relevant or correlational approaches regarding the relationship between creativity and morality, with a special focus on honesty, when applicable.

By reviewing the literature on this subject, three main angles emerged. Based on the first perspective, scholars argue that there is no correlation between the creativity of an individual and his/her morality (Andreani and Pagnin, 1993; Cropley et al., 2008). In contrast, the hypothesis that a positive correlation exists is supported by theoretical and empirical evidences that suggest greater morality to develop with greater creativity (Simonton, 2013; Martin, 2006; Liu et al., 2014). On the far side, the last viewpoint reveals a negative correlation between morality and creativity, and

specifically between honesty and creativity. In fact, scholars argue that a dishonest behaviour is fostered by an outstanding creativity (Gino and Ariely, 2012; Gino and Wiltermuth, 2014; Vincent and Kouchaki, 2016). The following sections will discuss in details the three approaches.

2.5.1 No correlation between Creativity and Morality

A number of authors have highlighted the absence of a correlation among creativity and morality, because, as a creative person, also a creative product can serve both benevolent and malevolent goals, it can also serve others that are neither morally good or bad (Runco, 2009).

In order to highlight the main difference between negative and malevolent creativity, Cropley et al. (2008) gives several examples of why negative creativity can be considered as free of morality. Firstly, their argument moves from Hume's vision of the two constructs as detached into two separated categories, to then present situational examples, such as stealing from a company or finding a novel way to avoid an unpleasant work (Cropley et al., 2008). Those actions encompass the "negative creativity" and they are not obviously and specifically designed to cause harm to others. Yet, people appear to steal or to avoid some kinds of work not for a planned destructive intent, but only in order to personally benefit from those activities (Cropley et al., 2008, Shen et al., 2017). So, a creative process can lead to a purpose that is amoral.

Empirically, Andreani and Pagnin (1993) testes the lack of correlation between creativity and morality. The researchers selected a sub-sample composed by gifted adolescents from an original sample of 350 participants, through a test that was simultaneously measuring intelligence and creativity, by requesting to predict consequences of impossible or unusual situations. Morality was measured based on the way they solved five moral dilemmas. From the results, Andreani and Pagnin observes the lack of difference in the number of moral dilemmas solved by the creative gifted adolescents and the average youths even if the solutions given by the creative youths to the moral dilemmas were more original.

Overall, the absence of a direct link between morality and creativity is supported by a limited number of studies. Specifically, scholars argue that creativity is value laden, as "a creative product or idea should contain values or be useful for individuals or societies" (Shen et al., 2017). In a similar fashion, Runco states that values are necessary to express the creative potential or to take the decision to invest in resources that are needed to generate creative ideas (Runco, 2009). Moreover, another interpretation of the results of the experiment conducted by Andreani and Pagnin shows that creative adolescents have a higher need for success and are less willing to endorse altruistic and humanitarian values. Thus, Shen et al. (2017), consider creative people morally oriented towards themselves, as they tend to be success-driven, self-oriented, and less

prosocial. In fact, caring about oneself rather than about the others is a characteristic that concerns morality (Shen et al., 2017), and this could be an argument against the idea of the lack of correlation between creativity and morality.

The following sections will provide details about theoretical and empirical evidences, growing in number and relevance, that support the existence of a positive and of a negative correlation between creativity and morality (Shen et al., 2017).

2.5.2 Positive correlation between Creativity and Morality

The second approach stresses the theoretical and empirical evidences of a positive correlation between creativity and morality, arguing that higher degrees of morality exist in individuals which are more creative.

Theoretically, Shen et al. (2017) find the roots of this argument in the "virtue is knowledge" statement. Indeed, knowledge is central in a moral decision-making process, as the more knowledgeable an individual is, the best he/her can determine what is good and what is evil. The researchers also argue that knowledge is a core feature of creativity (Shen et al., 2017). Moreover, Kampylis and Valtanen (2010) analysed 42 contemporary definitions of creativity, showing that the bigger amount of terms adopted to explain the concept are associated with positive outcomes, such as social and technological innovation or economic and health wellness, and with personality traits, like humor and altruism. Simonton (2013) demonstrates that moral values are drivers for creativity, this happens where innovative technological products that are made for valuable and morally positive purposes (Martin, 2006).

Thus, creativity can be fostered by morality when the process of divergent thinking is adopted to break or bend non-ethical rules in order to solve moral problems or dilemmas. In this way problem solving (Shen et al, 2017) or embracing new alternatives to avoid immoral behaviours are facilitated. Examples can be found in the commitments of historical personalities, namely Gandhi and Thoreau, who inspired the first movements of non-violent protest and resistance (Runco, 2009). Also theoretically speaking, Freud argues that morality is able to improve creativity as, thanks to the artistic practice, an individual can sublimate his/her unethical thoughts, turning them into masterpieces accepted by society. An example of this process is the "La Gioconda / Monna Lisa", that was psychoanalyzed by Freud as Leonardo da Vinci's way to channel his immoral sexual desire towards the mother (Freud, 1947).

Several empirical studies demonstrate the existence of a positive correlation between creativity and morality. Professionals were analysed to confirm this correlation during a research conducted by Yurtsever (1998), who collected data of 400 companies' managers. The analysis

brought the author to conclude that the more creative the leaders were, the more they behave morally. Similar results were found also among 291 employees (Chen and Hou, 2016, Shen et al., 2017). An interesting illustration of this hypothesis comes from Liu et al. (2014), who conducted the first neuroscientific study on the topic. The results show that the activations related to creativity and located in the prefrontal region of the participants' brains were weaker in students with less morality, and this was confirmed after controlling both for intelligence and for the reasoning abilities (Liu et al., 2014).

To sum up, the idea of a positive correlation between creativity and morality is supported both by empirical and by theoretical studies.

2.5.3 Negative correlation between Creativity and Morality

On the opposite side of the spectrum, literature is exploring whether there is a negative correlation between creativity and morality, so if greater morality concurs with lower creativity (Shen et al., 2017). In relevant studies, creative people showed to be more aggressive (Lee and Dow, 2011), suspicious (Mayer and Mussweiler, 2011), and more dishonest. For instance, creative people are capable to generate more types of justifications to cheating behaviours (Gino and Ariely, 2012), and they display lower integrity (Beaussart and Kaufman, 2013). In fact, researchers have found that the abilities of creative people to see things that remain unnoticed by others (Carson et al., 1994) and to solve problems by interpreting them from a peculiar prospective (Simonton, 1999) lead them often to violate conventional norms (Newell et al., 1962). For instance, creative actors have an higher degree of cognitive flexibility (Amabile, 1983), defined as "the ability of individuals to reconnect given information and restructure knowledge in multiple ways depending on demands", that brings them to engage unusual actions to meet some specific needs (Mai et al., 2015).

Narrowing the focus on the relationship between creativity and dishonesty, the main measure of the latter has been the ability of creative people to lie. Walczyk et al. in 2008, showed how the propensity to lie or the ability to come up with different lies that creative people have, is due to their higher of "divergent fluency" or "divergent thinking. In fact, creative people, in front of ethical dilemmas, are more able to generate reasons to justify potentially unethical behaviours (Walczyk et al., 2008).

This ability is connected to the process of self-serving rationalization that balances the desire to maximize self-interest, with the desire to maintain a positive view of oneself. This ability is facilitated by greater creativity (Gino and Ariely, 2012). Thus, creativity might increase some sort of moral flexibility and ability to create justifications to bad behaviours up to a certain self-designed

boundary, that leads creative people to do wrong while feeling moral (Gino and Ariely, 2012; Shalvi et al., 2012).

Gino and Ariely (2012) proposed and tested those hypotheses by empirically studying cheating behaviours. They discovered that creative people are more likely to manipulate the results of their tests in comparison to less creative people, especially in ambiguous situations. The researchers' conclusion is that creativity motivates dishonesty, because it increases the propensity to lie. Even though very interesting, this study has been criticized to be too artificial and to have a poor validity because students were not only given the opportunity to cheat, but were also tempted to do so (Shen et al., 2017).

One year after, Beaussart et al. (2013), empirically analysed the propensity to lie and the self-reported integrity of creative people. The study underlines a negative and significant relationship between observable integrity, giving the sample the opportunity to gain an extra credit by skipping one survey and going to fill a different one, and creativity. They found the same negative correlation between the self-reported personality factor of integrity (measured via the Integrity/Honesty/Authenticity, IHA) scale of the IPIP) and creativity.

Moreover, Gino and Wiltermuth (2014) researched whether it works the other way around, so if dishonesty leads to creativity. The common trait of the two concepts is that both involve breaking rules (Runco, 2009) as creativity lays on divergent thinking and cognitive flexibility, that under certain circumstances can lead creative people to be more likely to bend or break rules (Runco, 2009). In five experiments, creativity was measured in various ways, while participants were given the opportunity to behave dishonestly by over reporting their performances on specific tasks. The researchers discovered cheaters to be more creative than non-cheaters (Experiment 1). Using random assignment, they confirm that acting dishonestly in the first experiment leads to greater creativity in the following tasks (Experiments 2 and 3). The experiments 4 and 5 indicate a stronger feeling of being unconstrained by rules in creativity people. In conclusion, the research reveals that dishonesty enhances creative behaviour by making people feel less constrained by rules. Yet, critics argued that creativity does not necessarily suggest breaking value rules, "but more restructuring, integrating, modifying, analogizing, or other methods, thereby debunking or rejecting the hypnotized case that rule-based morality antagonizes creativity which likely requires rule-breaking" (Shen et al., 2017, p.10).

In order to give strength to the hypothesis of a negative correlation between creativity and dishonesty, it is necessary to mention one more research, conducted by Kouchaki and Vincent (2016). Here, a theoretical model was tested, that explains both when and why having a creative role identity can increase a sense of entitlement to endorse unethical behaviours, such as dishonesty,

in the forms of cheating, stealing or lying. They believed that, when creativity is perceived as rare and unique, it increases a sense of psychological entitlement that can provide a justification to embrace unethical behaviours. Thus, Vincent and Kouchaki used measurement of mediation and experimental causal chain approaches to test the mediating effect of psychological entitlement on dishonesty and then they further provide evidence from organizations. The responses show that employees with strong creative identities and who perceive creativity as rare in their work-group feel entitled to engage in unethical behaviours.

To sum up, academics that researched the existence of a negative correlation between creativity and morality discovered that greater creativity facilitates self-serving justification process. Besides, a lack of constraints in dishonest people enhances creative behaviours. Lastly, that rarity or commonness of creativity in the environment leads to a sense of entitlement towards dishonest actions.

2.6 Conclusions of Theoretical Framework

In this chapter, the problematic conceptualization of the terms creativity and dishonesty has been discussed, together with a clear definition of the concepts of negative and malevolent creativity. The focus on the dark side of creativity has been on the creative product that can be adopted or generated aiming to cause harm to others. Tis study will analyse the dark side of creativity with regards to the creative person and his/her dishonest behaviour, as other researchers suggested (Gino and Ariely, 2012). Specifically, all of the discussed issues are relevant for the research question because they provide a full portrait of the divergent approaches concerning the topic, and the different empirical results gained until now. To this end, table 1 provides an overview of the selected empirical studies on the relationship between creativity and morality.

TABLE 1 – THE SELECTED EMPIRICAL STUDIES ON THE RELATIONSHIP BETWEEN CREATIVITY AND MORALITY.

Correlation	Studies	Creativity measures	Morality measures	Research findings
No Correlation	Andreani and Pagnin, 1993	A self-developed scale includes different items, such as requiring participants to predict consequences of unusual or impossible events, generate new associations and come out with novel words.	Moral reasoning test composed by two old and three new dilemmas.	The number of dilemmas solved by creative people and non-creative people was highly similar. The solutions provided by the creative youths seemed relatively original.
Positive Correlation	Yurtsever, 1998	Raudsepp's creativity scale.	Ethics Position Questionnaire – ethical relativism and ethical idealism.	The creativity of managers is positively correlated with ethical relativism.
	Liu et al., 2014	Problem solving task: participants have to solve Chinese riddle problems using creative strategies.	A moral personality task. Participants have to match moral or immoral words regarding personality to themselves and to the others.	Participants with higher moral scores show a lower frontal brain activation, thus there is a positive correlation between creativity and morality.
Negative Correlation	Walczyk et al., 2008	Creative personality and divergent thinking skills are measured via Williams' Creativity Assessment Packet, Test of Divergent Thinking, Ideational Behaviour Scale. Moral dilemmas' solutions are scored based on novelty and effectiveness.	Social and moral dilemmas to be solved, some of them involving lying.	Creative liars have a higher score in divergent thinking and are more ideational.
	Lee and Dow, 2011	Two divergent thinking tasks, list uses of a pen and a brick. Results were scored based on fluency and (malevolent) intention.	Personality measures involving morality, like basic personality, trait sympathy and dispositional aggressiveness.	Negative moral traits exist in individuals that score higher in malevolent creativity.
	Gino et Ariely, 2012	Three measures: creative personality scale, creative behavioural inventory and creative cognitive style.	Behavioural dishonesty where participants are requested to report their previous performance with the possibility to cheat and get payoff.	Five studies demonstrate that creative people tend to cheat more than non-creative people and that dispositional creativity is a better predictor of unethical behaviour than intelligence.

Beaussart and Kaufman, 2013	Participants have to solve 15 problems that compose the RAT (Remote Association Test) in 15 minutes.	Self-reported Integrity/Honesty/Authenticity scale and a test of behavioural integrity.	The more creative people tend to fail the behavioural integrity test. Consequently, self-perceived integrity is negatively related to creativity.
Gino and Wiltermuth, 2014	Creative insight task and RAT.	Behavioural Dishonesty, participant can behave dishonesty by over reporting their performance in a previous task.	Five experiments reveal that cheaters are subsequently more creative than non-cheaters. The relationship between creativity and dishonesty is related to a feeling of being unconstrained by rules.
Kouchaki and Vincent, 2016	Creativity is assessed with the Creative role identity scale and the RAT that measure creative thinking.	Behavioural dishonesty is measured by whether participants over report their performance. Akaah's 17 items unethical behaviour scale.	Participants with high creative identities that perceived creativity to be rare in their workplace, rather than common, feel entitled to behave dishonestly.

3. Methods

3.1 Research Question

While the previous sections were aimed at positioning the research issue in its broader context of the dark side of creativity, focusing on the relationship between creativity and morality, and especially dishonest behaviour, the following chapter will explain the methodology as well as provide justifications for the choices made. After stating the central research question, the hypotheses will be presented and then the specific method used will be clearly illustrated. The chapter will end by outlining the approach used for gathering the data, together with sampling and the design of the measures.

The methods and design of the research have been selected according to the research questions it attempts to answer. Our main research question reads as follows:

What is the relation between creative personality and dishonest behaviour?

As we will make a distinction between professionals and students, and we will account for their creative process and every day or professional creative achievements, we developed the following sets of sub-questions.

- *To what extent does creativity, as a personality trait, affect the dishonest behaviour of University students?*
    - *Is this relationship moderated by their honest personality?*
    - *Is this relationship mediated by their creative process and by their everyday creative achievements?*

- *To what extent does creativity, as a personality trait, affect the dishonest behaviour of people with a creative profession?*
    - *Is this relationship moderated by their honest personality?*
    - *Is this relationship mediated by their creative process and their professional creative achievements?*

3.2 Hypotheses

Based on the discussed theory, the general hypothesis underlying the data collection expects that the more creative the personality of a person is, the more likely he/she will behave dishonestly on a given task (Gino and Ariely, 2012).

Different studies have looked at this issue, focusing on how dishonest actions are influenced by creativity, as a personality trait or as a creative process named divergent thinking.

Starting from the latter, Walczyk et al. (2008) argues that the divergent thinking process drives people to produce creative lies. Moreover, Gino and Wiltermuth (2014) further analysed this relationship testing whether committing an immoral action could enhance a person's creativity. In this way, they observe that cheaters in the first place were subsequently more creative in divergent thinking tasks, such as solving RAT problems, than non-cheaters. Additionally, Gino and Ariely (2012) conducted a series of studies, discovering that people with a creative personality and high creative skills engage more in cheating behaviours then less creative people, in an ambiguous situation. In fact, they tended to manipulate their results by lying about the way they previously performed, showing a higher ability to generate justifications for their cheating. Thus, the authors conclude that creativity, as a personality trait, leads to dishonesty, and this relationship is mediated by the creative divergent thinking process, that enhances the ability to self- justify a dishonest action.

Based on these studies, it is expected that:

H1: Individuals with creative personalities will engage more in dishonest behaviours than individuals with salient non-creative personalities.

H2: Creative personality positively affects creative process, in terms of divergent thinking.

H2b: Creative process, in terms of divergent thinking, will be significantly and positively related to dishonest behaviour.

Empirical support about a relation between these creativity and dishonesty comes as well from the research conducted by Beaussart et al. (2013). This study shows that integrity, measured with the Integrity, Honesty and Authenticity scale (IHA) of IPIP, is significantly and negatively related to creative skills. While the previous researches (Gino & Ariely, 2012) treated integrity and honesty only as an observable phenomena, thus analysing behavioural evidences, this study considers them also as personality factors. Thus, Beaussart et al. found both a negative relationship between observable behavioural integrity and creativity, and between self-reported integrity and creativity. This line of reasoning rests on the assumption that creative people are more able to

commit dishonest behaviours, such as cheating or lying, and that this relationship is be mediated also by honesty, as a facet of integrity and a personality trait. This ideas bring to the following groups of hypotheses.

H1b: The relationship between creative personality and dishonest behaviour is moderated by honest personality.

H2c: The relationship between creative process and dishonest behaviour is moderated by honest personality.

Furthermore, Kaufman et al. (2016), while measuring the creative personality of their sample, found a positive correlation between "Openness to experiences", scale from Hexaco, and creative achievements, measured via CAQ, Creative Achievement self-reported Questionnaire.

Based on this knowledge, creative achievements are expected to act as mediators, as a variation in the creative personality causes a variation in the creative achievements, which turns into a variation in dishonest behaviour (Hayes, 2013). This third group of hypotheses have been developed.

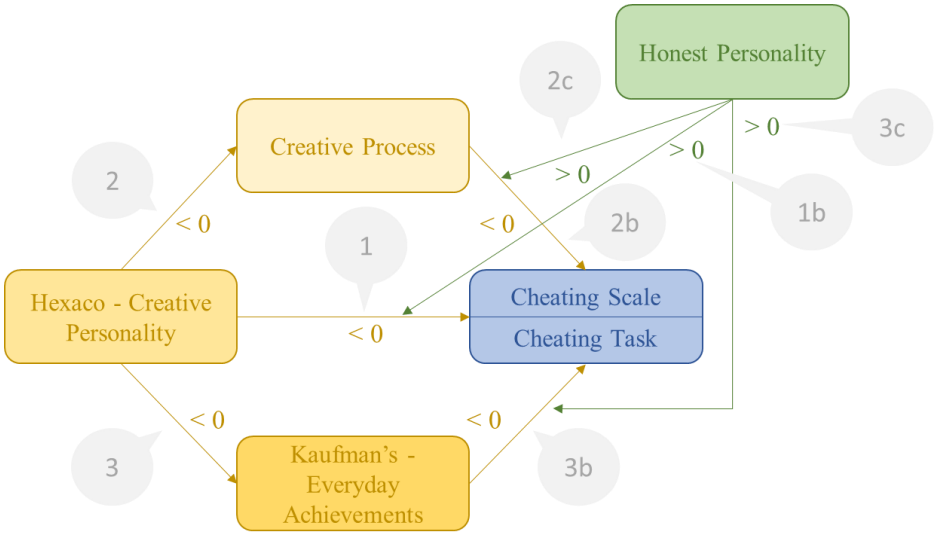
H3: The relationship between creative personality and creative achievements is positive.

H3b: Creative achievements will be significantly and positively related to dishonest behaviour.

H3c: The relationship between creative achievements and dishonest behaviour is moderated by honest personality.

Figure 1 depicts the theoretical model of the thesis. The main and positive relationship connects creative personality to dishonest behaviour (H1). This correlation is mediated by creativity in the forms of creative process (H2), and by creative achievements (H3). The negative relationships between the three forms of creativity and dishonest behaviour (H1a; H2b; H3b) are moderated by a decrease in honest personality (H1b; H2c; H2c).

FIGURE 1 – THEORETICAL MODEL ON THE RELATIONSHIP BETWEEN CREATIVITY AND DISHONEST BEHAVIOUR.



3.3 Research design and Method

In order to answer the research questions, a quantitative approach has been adopted and three studies have been conducted. Even if a qualitative approach can provide an understanding of behaviours and of decision-making processes happening in the professional or everyday life of the individuals (Spencer et Ritchie, 2002), a quantitative analysis has advantages in this specific research context.

First, in order to understand the relationship between creativity and dishonesty, it is important to search for a pattern, thanks to an analysis of personality traits, processes, achievements and behaviours. While a qualitative approach has a limited number of interviewers to rely on and would merely provide examples, a much larger sample through surveys makes the quantitative method able to establish the actual pattern within a representative sample of the population (MacDonald and Headlam, 2008).

Moreover, this exploratory endeavour can be achieved most efficiently through a questionnaire that encloses official measures, which already showed to have validity and to be reliable in outstanding literature about creativity and morality. Measuring creativity is difficult, as there is not one and only definition of it, there are different measures that can be of use, based on where the focus of creativity is. Therefore, the idea is to solve the issue by focusing on three sub-categories of creativity, namely creative personality, process and achievements of the single individual, in order to have an overview of it, and to use objective, self-rating and other-ratings tests (Batey, 2012).

Lastly, problems of validity could appear with a qualitative analysis. In fact, the sample could feel uncomfortable about reporting face-to-face about their previous lying or cheating experiences, faking their feelings towards those actions. This could happen because of the fear to be judge when telling something morally inappropriate and the need to maintain a positive self-concept of oneself as an honest person (Mazar et al., 2008). This problem is overcome with quantitative method, that also helps to decrease the scope of error, besides the measures adopted are generally recognized for their validity in capturing the construct under analysis (Gino and Ariely, 2012). Based on these reasons, a quantitative approach was chosen.

Initially, two studies have been conducted, in order to understand the relationship between creativity and dishonesty in a sample of professionals (study 1) and of students (study 2), and have a better understanding of it. Study 2 involved two parts, the first online and the second one in class, but the participation at the second part was not equivalent to the one online, thus the study was divided into study 2.1 and 2.2. The next sections will provide more detail regarding the measures involved and the data collection.

3.3.1 Measures, Study 1

The first study adopts an online survey addressed to professionals within ten creative fields, composed of official scales that measure honesty, creativity and dishonest behaviour. Specifically, creative personality was measured with the "Openness to Experiences" scale from HEXACO (Ashton and Lee, 2009). Besides, the creative process of divergent thinking was assessed by asking to participants to list as many uses of a pen as they could think about (Morgan, 2016). Then, the Creative Achievement Questionnaire (CQA) was adopted to understand the professional achievements of the sample within ten domains, each one of them composed by eight questions (Carson et al., 2005). Moreover, the Honesty/Humility scale from HEXACO provides an overview of the honest personality (Thielmann et al., 2017). Lastly, the cheating behaviour was assessed in two ways. First, we search for a self-reported cheating scale that could provide a portrait of dishonest behaviours in different aspects of the social life, from social relationship, to public, academic or professional behaviours. Due to the difficulty to find an existing one, a 6 items on a 6-points Likert self-reported scale (never/always) was developed, by adapting two existing ones. From the Marlowe-Crowne Social Desirability Scale question 9 and 15 where chosen ("If I could get into a movie without paying and be sure I was not seen I would _____ do it"; "There have _____ been occasions when I took advantage of someone."), (Crowne, Marlowe, 1960). From Williams et al. (2010), question 3 was picked ("In college, I ___ copied someone else answers on a school test"). Three more questions were created and added regarding the frequency of

cheating to a partner, stealing from the workplace and exaggerating stories when telling them to people. Participants had to fill in the frequency of their dishonest behaviour, from 1 to 6 where 1 stands for “always” and 6 for “never”. See Appendix for the all scale.

Dishonest behaviour was captured in the last question of the survey, when participants were given the chance to cheat about their age, by confirming to be in a certain age-range for a reward (winning an Amazon gift card). As the age of the person was asked explicitly in the first block of the questionnaire, together with other socio-demographic characteristics, it was possible for the researcher to understand whether the person was cheating or not.

3.3.2 Measures, Study 2.1

An online survey was also adopted to measure the traits and behaviours of the sample participating to the study 2.1. The online survey was composed of the scales from HEXACO “Openness to experiences” (Ashton and Lee, 2009), to measure creative personality, and the “Honesty/Humility” to measure honest personality (Thielmann et al., 2017). Besides, creative skills were tested asking to list the uses of a pen (Morgan, 2016) and the everyday, or small, creative achievement with the first 11 items of the Kaufman Domains of Creativity Scale (K-DOCS; Kaufman et al., 2009). Lastly, the online survey enclosed the same self-reported cheating scale developed for the previous study.

3.3.3 Measures, Study 2.2

In study 2.2, participants of the online survey of study 2.1 were reached in class to conduct some tests. Specifically, the students received a booklet containing, at first, the Duncker’s Candle Problem, to be solved in six minutes (Weisberg and Suls, 1973). Then, they were requested to draw an alien in the most creative way within three minutes (Sellier and Dahl, 2015). The aliens were judged by 5 people based on how creative, novel, original, inspired artistic and innovative they are (Sellier and Dahl, 2015). Examples of the most and the less creative aliens are in Appendix D2 (p.104). Both those exercises were intended to provide a measurement of their divergent thinking ability. Moreover, in order to understand their behavioural dishonesty, they were given the chance to cheat at the end of an exercise. The first part of it was developed using Gino and Ariely’s model (2012). Firstly, PowerPoint slides where projected, each one of them for five seconds. They all contained twenty geometrical items, divided in the two sides of the screen, but never in perfect half. Thus, every slide had one side with more items then the other one. Examples are in Appendix D1 (page 103). Students where ask to cross in a table, next to the number of the slide, the letter “L”, if they counted more items on the left side of the screen, and the letter “R”, where they found more on

the right side of it. After the last slide was projected, they were asked in the subsequent page to circle the letter they crossed the most previously. The correct answer was to cross letter "L", as eleven slides had more items of the left side. Yet, students were told that if they cross on the "L", they had to write an essay as part of their portfolio. Thus, they were given the chance to act dishonestly and cross the "R".

Table 2 summarizes the measures adopted for all the studies.

TABLE 2 – THE SELECTED MEASUREMENTS ADOPTED FOR EACH STUDY.

VARIABLES		STUDY 1: *PROFESSIONALS*	STUDY 2: *STUDENTS*	
			STUDY 2.1	STUDY 2.2
CREATIVITY	CREATIVE PERSONALITY	Openness to Experiences, Hexaco sub-scale	Openness to Experiences, Hexaco sub-scale	Openness to Experiences, Hexaco sub-scale
	CREATIVE PROCESS	List uses of a pen	List uses of a pen	List uses of a pen Draw an alien Duncker's candle problem
	CREATIVE ACHIEVEMENTS	Creative Achievement Questionnaire	Everyday creative achievement, K-DOCS	Everyday creative achievement, K-DOCS
HONESTY	HONEST PERSONALITY	Honesty, Hexaco sub-scale	Honesty, Hexaco sub-scale	Honesty, Hexaco sub-scale
DISHONESTY	DISHONEST BEHAVIOUR	Cheating self-reported scale Cheat about the age to win an Amazon gift card	Cheating self-reported scale	Cheating self-reported scale Cheat about your previous performance to avoid writing an essay

3.4 Data collection, Study 1

3.4.1 Sample

Participants to the first study where selected based on their professions. The Creative Achievement Questionnaire provides eleven domains, or areas of work. Those are visual arts, music, dance, architectural design, entrepreneurial ventures, creative writing, theatre and film,

culinary art together with humour, scientific inquiry and invention. The sample reflects the population of creatives working professionally in at least one of those areas and spread globally.

3.4.2 Sampling method and distribution of questionnaire

Before the distribution, the questionnaire was tested by myself and the supervisor, Professor Loots, resulting in minor changes for the sake of clarity based their feedback. The survey was open between March 7th, 2018 and April 20th, 2018, designed and executed with the online survey tool Qualtrics. For reasons of feasibility and due to the geographical dispersion of the sample, it was distributed exclusively online through an anonymous and reusable link. Although this made it impossible to identify non-respondents, it was necessary to facilitate the snowball method: respondents could easily share the survey with their own contacts. The questionnaire involves much text, since the survey was composed by a total of 106 questions, including the logic jumps that compose the Creative Achievement Questionnaire. Besides, it was expected to fit an international sample. For those reasons it was written only in English.

Due to the specific circumstances, non-random snowball sampling was applied. To counteract some of the limitations of that method, personal contacts located in different geographical areas and professionals in many creative fields were activated. Additionally, the snowballing method was also supposed to be most fruitful in terms of response rates, as people encouraged to fill out a survey by someone they personally know seem more willing to do so, and to reach a diverse sample. The first step of data collection included distributing the survey to personal contacts of creative people via email as well as private and public Facebook accounts. To increase the chances of a positive response, these approximately first 30 contacts were contacted with partially individualized messages. Some contacts also offered to share the survey link with professional friends of theirs, which was possible through a freely shareable link. Apart from using the direct personal network, possible respondents were also looked up via the help of the internet, starting with the category “visual arts” and especially with the artists that attended Art Rotterdam by their Facebook pages or websites. Baltar and Brunet (2012) have argued that virtual snowball sampling through social networking sites can be more effective to increase a sample compared to traditional snowball sampling when it comes to populations of study that are hard to reach. The public Facebook communities of artists made it easy to share the questionnaire and to gain a consistent amount of respondents. Besides, this method reduces the selection bias because it reaches participants from different contexts that provide more representativeness than only a convenience sample (Baltar & Brunet, 2012). Thus, the contact list of professional creative people was extended

by posting a public message on creative people's groups, reaching communities of dancers, entrepreneurs, artists, musicians, architects and comedians spread worldwide.

In order to increase the response rate, after the participants had complete the questionnaire, I personally sent a private email with a wider description of the research and an explanation of the measures adopted, together with their personal scores in each category and an invite to share the survey to their professional creative friends (sample in Appendix B3, page 92). Even if this process was time consuming, it was a very important step, to highlight that even if the questionnaire requires quite personal or unexpected information, it is for an academic and well-planned scope.

3.4.3 Composition of the sample

During the period of data collection, the survey was able to record 305 complete responses, and 400 only partially filled, that did not have enough relevant information about the main variables to be taken into account. In fact, all the responses that progressed less than 97% of the questions were eliminated as they did not contain the part about their cheating behaviour, which is the dependent variable in the model.

Unfortunately, due to the use of snowball sampling and the spread of the anonymous link in Facebook groups with thousands of members, it is not possible to determine the representativeness of the sample. On the bright side, the use of global Facebook group brought people from 58 nationalities to complete the questionnaire, thus the sample may reflect the global population. The countries with the higher participants were the USA with 21,3%, followed by the UK that reached the 12,1% and Australia and Italy with 6,6% each. Generally, the responses coming from western countries (84,3%) were higher than from the eastern countries (15,1%). Women are more representative than men in this study, as 65,2% of the respondents are female, 32,1% are male and 2,3% preferred not to specify their sex. However, the population is nicely spread among the seven age groups that were given as choices (below 18, between 18 and 29, 30 and 39, 40 and 49, 50 and 59, 60 and 69 and above 70 years old), with 60% of the sample being below 40 years old. Most of the sample completed a high education (71,5%).

The participants were asked to select the areas in which they felt to be more creative, as part of the Creative Achievements Questionnaire. It is interesting to note that every single categories was selected. The less representative was Architectural design, with 8,2%, while the most popular are Visual arts (65,2%), followed by Creative Writing (43,3%), Humour (36,7%), Music (36,1%) and Theatre and Film (35,1%).

Taking all these characteristics into consideration, the findings of the survey will represent the characteristics of creative professionals with abilities in eleven different domains, of age groups,

that are mainly women. This should be kept in mind throughout the discussion of the results, where more details about them will be provided. Table 19, Appendix A (page 81), provides a complete overview of demographic variables.

3.5 Data collection, Study 2.1 and 2.2

3.5.1 Sample

The second study is divided in two parts and it aims at analysing creativity in its everyday form, thus the point of interest is not in the creative professionals, but in students, to see how it influences their dishonest behaviour. A sample of students attending the Bachelor degree in Arts, Culture and Society at Erasmus University of Rotterdam was selected, as reachable thanks to the supervisor, professor Loots.

3.5.2 Sampling method and distribution of questionnaire and tests

The students were asked to contribute two times, firstly by answering an online survey, and secondly by completing three exercises in class together with the researcher.

For study 2.1, a survey was created with the online source Qualtrics, and distributed online to the class via their academic email. Professor Loots addressed the emails and offered students to gain an extra credit on their final portfolio, upon completion. This was a very helpful way to encourage the students to fill it in. The first step of the questionnaire asked to create a personal code, composed by the first two letters of the participant's father's name, the first two of his/her mother's name and the last two letters of the mother's surname. This was necessary to guarantee asymmetry, yet being able to match the questionnaire online with the second part of the study, conducted in class. The questionnaire was online between 17th, March and 9th, April 2018.

The second part of the study was conducted in class on Friday, 23rd March 2018. The students received a booklet. In the front page, they were asked to compose the same code of the online questionnaire, and that was necessary for the researcher to link the two parts of the study.

3.5.3 Composition of Sample

As the composition of the two groups of students is slightly different, the two samples are treated separated. Study 2.1 is composed only by students that completed the online survey, while study 2.2 by students that completed both the online survey and the exercises in class.

The sample of study 2.1 is composed by 93 students, 91,4% of them is in between 18 and 24 years old, while the rest between 25 and 34 years. Females are the majority, reaching 87,1% of the

total population. The country of origin of most students are the Netherlands (57%), followed by other 26 countries, western nationalities were the majority (74,2%).

In study 2.2, 40 students compose the sample. Looking at the demographic information concerning them, it becomes clear that they are in between 18 and 24 years of age for 92,5%, mainly female (87,5%) and Dutch (52,5%). The appendix A provides a complete overview of the demographic variables of study 2.1 (Table 20, page 82) and study 2.2 (Table 21, page 82).

Three students who completed only the part in class, and never filled in the online questionnaire, were excluded from both studies.

3.6 Validity and reliability

In terms of validity, the research benefits from its topic, as all the studies primarily tested respondents' creativity, honesty and dishonesty, in the form of cheating behaviours. Hence, the chances that the variables were measured appropriately are high. Moving from the weaknesses of previous researches, it was here important to have multiple measurements for every concept, in order not to leave room for ambiguity. As became clear in the first chapter, defining creativity is complicated, and so it is to measure it. Having to deal with the dishonesty of creative minds required an in-depth study of the possible methods and of the structure of the surveys, thus, looking at previous research dedicated to similar topics was also intended to increase the validity of the measures chosen.

The external validity has most definitely need to be considered with the samples characteristics in mind. As the main focus is creativity, and because it does not exist only where a professional artistic career is, a sample of students was selected. The aim of study 1 was to reach a big sample, composed by different age ranges, nationalities and artistic careers, in order to look for a pattern. On the other side of the spectrum, study 2 was developed in order to understand how creativity exists in small everyday achievement, and how it might influence the dishonest behaviour.

To increase reliability, it is important to highlight that having different items within the tests that probe the same construct provides strength to the final result. In fact, official tests, composed with reversed or parallel questions, that were successful in previous studies, are here adopted whenever possible to help ensure the validity of the measures. Besides, in study 2.2, the drawing of the aliens were scored by multiple judges and the final score comes from a mediation of all the grades, in order to reflect an assessment decisions that increases reliability. Lastly, the fact that the questionnaires was standardized for all respondents, but constructed in order to get closer to a

professional or an everyday activity, eliminates, to a certain extent, possible unreliability in observations made by the researcher.

4. Empirical Analysis

4.1 Study 1

4.1.1 Results, Descriptive Statistics

To understand the relationship between creativity and dishonest behaviour, the first study considers a sample of global creative entrepreneurs (N = 305; 65.2 % female) that may reflect the actual population. All results presented in Table 3 refer to the entire sample (see also table 19 in Appendix A, page 81, for accompanying details about socio-demographic variables).

The first three independent variables that appear in table 3 represent creativity and they measure three sub-categories of it, namely creative personality, creative process, and professional achievements accomplished within ten creative fields. The dependent variables aim at portraying the dishonest behaviour of creative professionals, and consist of a self-reported cheating scale and of a cheating task. Moreover, honest personality is analysed for its hypothesized moderator effect in the relationship between creativity and dishonest behaviour. The table includes also the socio-demographic control variables of age, nationality and level of education. Specifically, seven groups, ranging from below 18 years old to over 70 years old, compose the variable age. Two dummy variables were created, one for nationality, coding 0 for Western countries of origin, within most of Europe, the Americas and Australia, and 1 for Eastern countries of origin, within eastern Europe, Asia and Africa, and another dummy variable summarizes the level of education, where 0 reflects High School graduates or less, and 1 stands for higher education.

As the table shows, creative personality is significantly and positively correlated both with creative process (r =,317; p = 0,01), supporting hypothesis 2, and with creative achievements (r=,202; p = 0,01), supporting hypothesis 3. Throughout the study, the three variables will be treated separately, as they measure different subcategories of creativity. In the same fashion, the cheating scale and the cheating task will not be joint in a dependent variable named dishonest behaviour (r=,113; p = 0,05), as previously planned following the study by Gino and Ariely (2012).

The data displayed in Table 3 indicate that there is a negative, significant correlation between the two personality dimensions, Openness to Experiences and Honesty (r = - ,158; p = 0,01). There is a strong, negative correlation between Honest personality and self-reported cheating (r = - ,534; p =,01) and between Honest personality and cheating task (r = - ,135; p= ,05).
From the table it becomes clear how the independent variables do not correlate significantly with the dependent variable(s). Age is significantly and negatively correlated with both the dependent variables, the cheating scale (r=-,135, p=,05) and the cheating task (r=-,154, p=,01). Beside, education is significantly and positively correlated with creative personality (r=,200; p=,05),

TABLE 3 -DESCRIPTIVE STATISTICS AND CORRELATIONS (USING RAW SCORES FOR EACH MEASURE), STUDY 1.

		1	2	3	4	5	6	7	8	9
	1. Creative Personality: Hexaco									
CREATIVITY	2. Creative Process: creative task	,317**								
	3. Creative Achievements Questionnaire	,202**	,171**							
HONESTY	4. Honest Personality: Hexaco	-,158**	-,118*	,026						
	5. Self-reported cheating scale	-,098	,015	,051	-,534**					
DISHONEST BEHAVIOUR	6. Cheating task (0=non cheater, 1=cheater)	-,014	-,050	-,024	-,135*	,113*				
	7. Age[a]	-,013	,065	,025	-,101	-,187**	-,154**			
	8. Nationality (0=Western, 1=Eastern)	-,038	-,068	-,077	,006	,049	,040	-,093		
CONTROL VARIABLES	9. Education (0=Low education, 1=High education)	,200*	,129*	,087	,075	,134*	,088	-,014	,001	
	Mean	41	7,64	12,46	23,81	11,56	0,08	3,40	,15	,72
	S.D.	4,90	4,83	28,72	5,91	3,08	0,27	1,33	,359	,451
	Min.	10	0	0	10	6	0	1	0	0
	Max.	50	30	367	50	30	1	7	1	1

N = 305

[a] 1 = under 18, 2 = 19-29, 3 = 30-39, 4 = 40-49, 5 = 50-59, 6 = 60-69, 7 = over 70 years old.

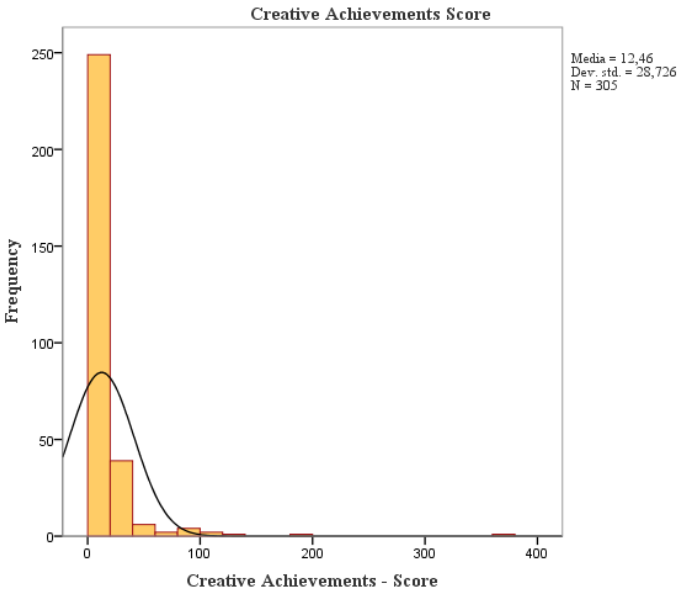
** p = 0,01; * p = 0,05; two tailed

creative process (r=,129; p=,05) and with the self-reported cheating (r=,134; p=,05), but not with professional creative achievements (r=,087; p= n.s.).

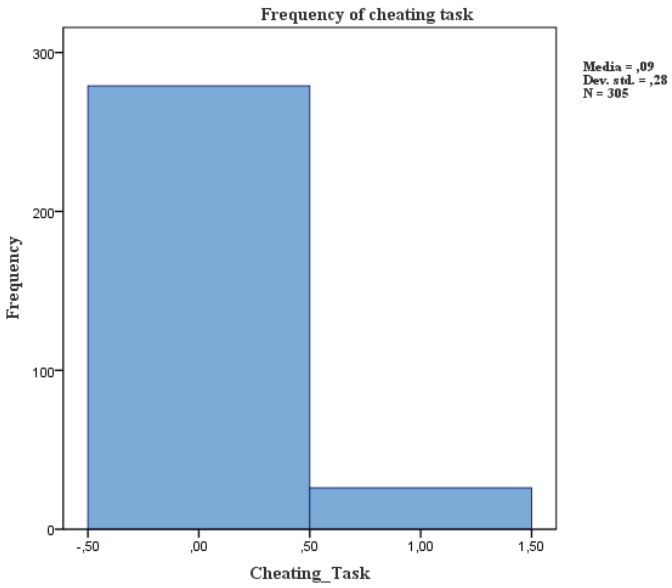
As depicted by the table, the mean of the cheating task variable is quite low (M=,0080), suggesting that only 8% of the sample cheated in the task. The variable is not normally distributed (see graph 1) and it represents a rare event. Thus, a bootstrap analysis with 1000 replicates was conducted to assure the validity of all the correlations reported. No changes were suggested by the bootstrap analysis.

The distribution of scores of creative achievements is skewed, with a minimum of 0 and a maximum of 367 (M=12,46; SD=28,72). Graph 2 provides a better understanding of the distribution of values.

GRAPH 2 FREQUENCY OF ACHIEVEMENTS SCORES, STUDY 1.



GRAPH 1 FREQUENCY OF CHEATING TASK, STUDY 1.



4.1.2 Regression analysis, Dependent Variable: Cheating Scale

A second stage moderated mediation regression analysis was conducted to test whether the relationship between creativity and dishonest behaviour is mediated by creative achievements and by the creative process and to investigate whether honest personality moderates the relationships between the three types of creativity and dishonest behaviour. The latter was measured with the self-reported cheating scale and with a cheating task. In the first analysis, only the cheating scale was adopted as dependent variable. Results of it are summarized in table 4.

TABLE 4 - SECOND STAGE MODERATED MEDIATION REGRESSION ANALYSIS, STUDY 1.

Variables	*Dependent variable:* Dishonest Behaviour, Self-reported Cheating											
	Model 1			Model 2			Model 3			Model 4		
	β[a]	SE	t	β [a]	SE	CI [b]	β [a]	SE	CI [b]	β[a]	SE	CI [b]
Predictor variable:												
Creative Personality [d]							,0385	,0320	- ,0245 to ,1014	,0106	,0338	- ,0559 to ,0771
Honest Personality [d]							-,2629***	,0251	- ,3123 to - ,2135	- ,2483***	,0251	- ,2978 to - ,1988
Interaction term 1							,0123***	,0028	,0067 to ,0178	,0119**	,0033	,0054 to ,0183
Mediator variables:												
C. Achievements [d]				,0088	,0061	- ,0030 to ,0212				,0036	,0051	- ,0065 to - ,0137
Interaction term 2										,0003	,0014	- ,0025 to ,0030
Creative Process [d]				,0086	,0112	- ,0131 to ,0313				,0437	,0327	- ,0206 to ,1080
Interaction term 3										,0065	,0054	- ,0041 to ,0170
Control variables:												
Age	-,421***	,130	- 3,232							- ,4192***	,1104	- ,6364 to - ,2020
Education	,904*	,384	2,351							,6372 †	,3268	- ,0059 to ,2804
Nationality	,276	,485	,568							*- ,0290*	,4125	- ,8409 to ,7829

Honest Personality [c]	**Conditional Indirect Effect** Creative Personality -> *Creative Process* -> Dishonest Behaviour			**Conditional Indirect Effect** Creative Personality -> *Creative Achievements* -> Dishonest Behaviour		
	β[a]	Boot SE	CI [b]	β[a]	Boot SE	CI [b]
-5,9324	,0016	,0155	-,0298 to ,0327	,0023	,0130	-,0253 to ,0271
0,0000	,0130	,0095	-,0049 to ,0328	,0040	,0053	-,0082 to ,0136
5,9324	,0244	,0124	,0018 to ,0511	,0056	,0129	-,0253 to ,0272
	Index of moderated mediation			**Index of moderated mediation**		
Honest Personality	,0019	,0017	- ,0013 to ,0057	,0003	,0020	- ,0042 to ,0040

n = 305; *† p < .10; * p < .05; ** p < .01; *** p < .001.*

[a] Unstandardized beta coefficients reported. Bootstrap sample size = 5000.

[b] 95% bias-corrected bootstrap confidence intervals reported.

[c] Honest personality values are the mean +/- SD from the mean.

[d] The variable was mean-centered prior to analysis.

Firstly, a multiple regression analysis was adopted to test whether the control variables of age, nationality and education significantly predict participants' cheating behaviour. The results of the regression indicate that the three predictors explain 5.4% of the variance (R^2 =.054, p= .001). It is found that education significantly affects dishonest behaviour (β = .904, p= .019) and also age (β= -421, p=.001), while nationality (β= 276, p=.570) is not a significant predictor of the dependent variable.

Secondly, a parallel mediation analysis was used to see whether creative process and creative achievements act as mediators of the relationship between creative personality and dishonest behaviour. Results indicate that creative personality is a significant predictor of creative achievements, b = 1,182, SE = .329, p < .05, but that creative achievements is not a significant predictor of dishonest behaviour, b = .008, SE = .006, p = .201. Similarly, creative personality significantly predicts creative process, b = .317, SE = .052, p = .000, but creative process is not a significantly connected to dishonest behaviour, b = .037, SE = .035, p = .108. A 95% bias-corrected confidence interval based on 5000 bootstrap samples indicates that the total effect of creative personality on dishonest behaviour (path c) is entirely below zero (β = -.0615, LLCI= -.1324; ULCI= -.0200), as it is the direct effect (path c'), (β = -.0789, LLCI= -.1545; ULCI= -.0033). By contrast, the indirect effects through both creative achievements (β= -.0088, LLCI= -.0032; ULCI= .0217) as well as creative process (β = -.0086, LLCI= -.0130; ULCI= .0335) has 95% CI containing zero. Finally, results from the parallel mediation analysis indicate that creative personality is not indirectly related to dishonest behaviour through its relationship with creative process and creative achievements. Figure 2 provides a visual representation of the effects associated with these pathways.

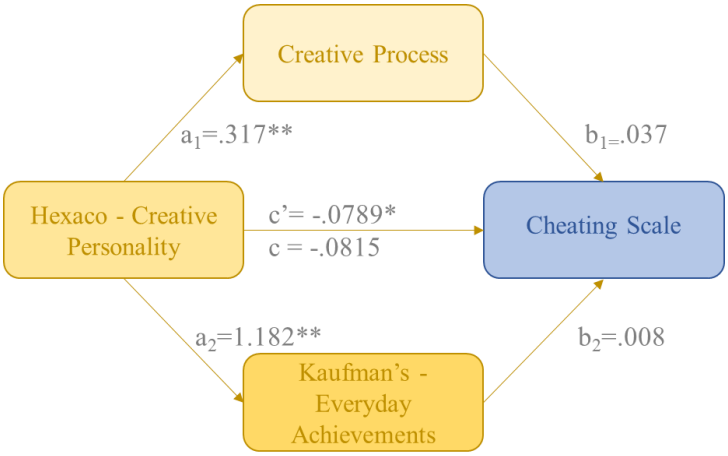


FIGURE 2 PARALLEL MEDIATION, STUDY 1. THE MEDIATING EFFECT OF CREATIVE PROCESS AND CREATIVE ACHIEVEMENTS IN THE RELATIONSHIP BETWEEN CREATIVE PERSONALITY AND DISHONEST BEHAVIOUR. NOTES: *P < .05, **P < .01; ALL THE EFFECTS PRESENTED ARE UNSTANDARDIZED; C' IS DIRECT EFFECT OF CREATIVE PERSONALITY ON CHEATING SCALE; C IS TOTAL EFFECT OF CREATIVE PERSONALITY ON CHEATING SCALE.

To test this hypothesis 1b (*The relationship between creative personality and dishonest behaviour is moderated by honest personality)* we conducted a regression analysis. As shown in table 5, two variables were included in the first regression analysis: honest personality and creative personality. These variables accounted for a significant amount of variance in cheating scale scores, R^2= ,285; F= 60,285; p= ,000. To avoid potentially problematic high multicollinearity with the interaction term, the variables were centered and an interaction term between honest personality and creative personality was created (Aiken & West, 1991). Next, the centered variables and the interaction term were included in the regression model. The overall model was significant, R^2 = .328, F= 48,891, p= .000.

Results indicate that creative personality is not significantly associated with dishonest behaviour (b = -.0385, SE = .0320, p = .223) while honest personality has a negative and significant effect on dishonest behaviour (b = -.2629, SE = .0225; p=.000). The interaction between honest personality and dishonest behaviour is slightly positive and significant (b = .0123, SE = .0028; p=.0000). The second part of table 4 suggests that this interaction is significant only at a high level of honest personality (i.e. one standard deviation above the mean, 5,9187), as 95% CI does not contain zero (,0307 to ,1913). The Johnson-Neyman technique (figure 3) showed that the relationship between creative personality and dishonest behaviour is significant when honesty is less than -10.1934 or higher than 2.4787 but not significant in range between the two. Simple slopes, plotted in graph 3, visually represent the interaction: the more honest people (yellow line) report to cheat less and to be less creative than the less honest people (blue line).

GRAPH 3 SIMPLE SLOPES, STUDY 1.

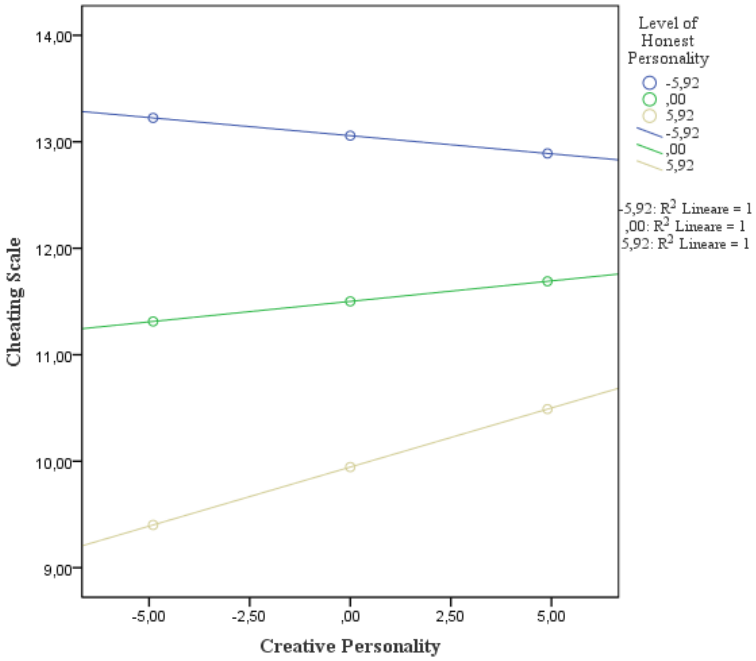


TABLE 5 - SELF-REPORTED CHEATING PREDICTED FROM HONEST PERSONALITY AND CREATIVE PERSONALITY.

Predictor	B	SE	t	p	CI
Honest personality	-,2629	,0251	-10,4728	,0000	-,3123 to -,2135
Creative Personality	,0385	,0320	1,2028	,2300	-,0245 to ,1014
Honest P. x C. Personality	,0123	,0028	4,3520	,0000	**,0067 to ,0178**
R^2 = ,3276 F= 48,8907					

Honest Personality	Effect	SE	t	p	CI
-5,9187	-,0340	,0306	-1,1116	,2672	-,0943 to ,0262
,0000	,0385	,0320	1,2028	,2300	-,0245 to ,1014
5,9187	,1110	,0408	2,7212	,0069	**,0307 to ,1913**

a. Dependent Variable: Self-Reported Cheating Scale

FIGURE 3 JOHNSON-NEYMAN METHOD.

Conditional effect of focal predictor at values of the moderator:

H_Person	Effect	se	t	p	LLCI	ULCI
-26,1934	-,2825	,0697	-4,0534	,0001	-,4196	-,1453
-24,1934	-,2580	,0647	-3,9900	,0001	-,3852	-,1307
-22,1934	-,2335	,0597	-3,9088	,0001	-,3510	-,1159
-20,1934	-,2090	,0549	-3,8037	,0002	-,3171	-,1009
-18,1934	-,1845	,0503	-3,6657	,0003	-,2835	-,0854
-16,1934	-,1600	,0459	-3,4825	,0006	-,2503	-,0696
-14,1934	-,1354	,0418	-3,2374	,0013	-,2178	-,0531
-12,1934	-,1109	,0381	-2,9088	,0039	-,1860	-,0359
-10,1934	**-,0864**	**,0350**	**-2,4722**	**,0140**	**-,1552**	**-,0176**
-8,3853	-,0643	,0327	-1,9679	,0500	-,1285	,0000
-8,1934	-,0619	,0325	-1,9080	,0573	-,1258	,0019
-6,1934	-,0374	,0308	-1,2153	,2252	-,0980	,0232
-4,1934	-,0129	,0301	-,4289	,6683	-,0721	,0463
-2,1934	,0116	,0304	,3810	,7035	-,0483	,0715
-,1934	,0361	,0318	1,1351	,2572	-,0265	,0987
1,8066	,0606	,0341	1,7797	,0761	-,0064	,1276
2,4787	**,0688**	**,0350**	**1,9679**	**,0500**	**,0000**	**,1377**
3,8066	,0851	,0370	2,2984	,0222	,0122	,1580
5,8066	,1096	,0406	2,7016	,0073	,0298	,1895
7,8066	,1341	,0446	3,0106	,0028	,0465	,2218
9,8066	,1586	,0489	3,2471	,0013	,0625	,2548
11,8066	,1831	,0534	3,4293	,0007	,0781	,2882
13,8066	,2077	,0581	3,5713	,0004	,0932	,3221

In the next part of the analysis, PROCESS for SPSS (3.0 version) developed by Hayes (2013) was adopted, in order to test our hypotheses. Model 15 was used to conduct a second stage

moderated mediation analysis, choosing for 95% confidence for bias-corrected bootstrap confidence intervals (CIs) with 5000 bootstrap samples estimate. The results are summarized in table 4.

Starting from the top right, the table shows that creative personality does not have a significant effect on dishonest behaviour because 95% CI contain zero (β =,0106; CI=-,0559 to ,0771), while honest personality has a negative and significant effect on it (β =-,2483; CI= -,2978 to -,1988). The interaction term between creative personality and honest personality is a positive and significant predictor of dishonest behaviour, (β =,0119; CI= ,0054 to ,0183).

As shown in table 4, creative achievements has a positive and significant effect on dishonest behaviour, (β = ,0036;CI= -,0065 to -,0137) but the interaction term between honest personality and creative achievements does not, as 95% CI contains zero (β =,0003; CI= -,0025 to ,0030). Creative process (β =,0437; CI= -,0206 to ,1080) and the interaction term between creative process and honest personality (β =,0065; CI= -,0041 to ,0170) are not significant predictor of dishonest behaviour.

Among the control variable, age has a negative and significant effect on self-reported cheating (β = -,4192; CI= -,6364 to -,2020), while education (β =,6372; CI=-,0059 to ,2804) and nationality (β =-,0290; CI= -,8409 to ,7829) do not.

The indirect effect of creative personality on dishonest behaviour via creative process is significant only when honest personality is high (i.e. one standard deviation above the mean, that is, 5,9324), β =,0244; CI= ,0018 to ,0057. As zero crosses the interval of the bootstrapping analysis for this index of moderated mediation, the conditional indirect effect is not supported (index= .0019; CI= -,0013 to ,0057). Additionally, the moderating effect of honest personality on the relationship between creative personality and self-reported cheating via creative achievements is also not significant at any levels of honesty (i.e. one standard deviation above the mean, the mean, one standard deviation below the mean). The control interval of the index of moderated mediation is not significant, as the 95% CI crosses zero (index=,0003; CI=-,0042 to ,0040).

4.1.3 Regression analysis, dependent variable: Cheating Task

This section will present the analyses conducted in order to picture whether creative process and creative achievements are mediating the relationship between creative personality and dishonest behaviour, which is measured with a cheating task. Honest personality is hypothesized to be moderating the relationships between each one of the three measures of creativity and the cheating task. As PROCESS macro for SPSS (Hayes, 2013) does not support a dichotomous dependent variable in model 15, three regression analysis have been conducted.

Firstly, our attention was on the control variables, to see whether age, nationality and education have an effect on the cheating task. Model 1 of table 6 shows that age is a significant negative predictor of cheating task (β = -.031; p= .009).

In the second model a moderator analysis has been conducted. Specifically, we can see that honest personality has a significant and slightly positive effect on the cheating task (β = .007; p= .017), while the three measures of creativity do not. Also not statistically significant are the interaction terms between honest personality and creative personality (interaction term 1, β = .000; p= .643), creative process (interaction term 2, β = -.001; p= .313), and creative achievements (interaction term 3, β = -.946; p= .646), do not. This analysis suggests that each one of the three measures of creativity does not have a significant and positive effect on cheating task, as hypothesised, and that honest personality cannot be acting as a moderator between the two variables.

Model 3 of table 6 shows the conditional indirect effects of creative personality on cheating task via creative process and via creative achievements. The data suggests that, even if creative personality has a positive and significant effect on creative process (path a, β = .313; p= .000) and on creative achievements (path a, β = 1.183; p= .000), the parallel mediation is not happening for three reasons. Firstly, because creative personality is not a significant predictor of cheating task (path c, β = - .001; p= .812). Secondly, because creative achievements does not predict cheating task (path b, β = .000; p= .674), and because creative process does not too (path b, β = - .003; p= .383).

From this analysis we can conclude that creativity does not affect cheating behaviour when the dependent variable is measured with the cheating task and when creativity is measured with creative personality, creative process and creative achievements.

TABLE 6 - REGRESSION ANALYSIS, DEPENDENT VARIABLE: CHEATING TASK

Variables	*Dependent variable: Cheating Task*							
	Model 1				*Model 2*			
	β[a]	SE	t	p	β[a]	SE	t	p
Honest Personality [b]					.007	.003	2.399	.017
Creative Personality [b]					.000	.004	- .030	.976
Interaction term 1					**.000**	**.000**	**.464**	**.643**
Creative Process [b]					- .003	.003	- .043	.457
Interaction term 2					**- .001**	**.001**	**-.058**	**.313**
C. Achievements [b]					.000	.001	- .478	.633
Interaction term 3					**- .946**	**.000**	**- .460**	**.646**
Control Variable								
Age	- .031	.012	- 2.618	.009				
Nationality	.020	.044	.459	.647				
Education	.049	.035	1.412	.159				
	Conditional Indirect effect							
Model 3	C. Personality -> C. Process-> Cheating task				C. Personality -> C. Achievements-> Cheating task			
	β[a]	SE	t	p	β[a]	SE	t	p
Path a	.313	.054	5.817	**.000**	1.183	.330	3.585	**.000**
Path b	- .003	.003	- .873	**.383**	.000	.001	- .421	**.674**
Path c'	- .001	.003	- .238	**.812**	- .001	.003	- .238	**.812**

n = 305.

[a] Unstandardized beta coefficients reported.

[b] The variable was mean-centered prior to analysis.

4.1.4 Discussion

The purpose of study 1 is to test whether creativity increases dishonesty, and specifically to investigate if there is a positive correlation between creative personality and dishonest behaviour. To this end, the sample chosen is representative of the population of people with a creative profession spread globally. The correlation was expected to be mediated by creative process and by creative achievements, while honest personality to moderate the relationships between each of the three subcategories of creativity and dishonest behaviour.

First we examined whether participants who scored high on creative personality also performed better on the creative process task (list uses of a pen) and reported more professional creative achievements. As shows in table 3, this is in fact the case, suggesting that creative personality significantly and positively correlates both to creative achievements and to creative process, in line with previous studies (Kaufmann et al., 2016; Gino and Ariely, 2012).

Creative personality, process and achievements do not correlate significantly and positively to the two measures of dishonest behaviour, suggesting that dishonest behaviour is not affected by creativity, against previous empirical findings (Gino and Ariely, 2012; Gino and Wiltermuth, 2014; Walczyk et al., 2008)). As Table 3 shows, the relations between creative personality and self-reported cheating scale is not significant and slightly negative (r= - .098; p= n.s.), same as its correlation with cheating task (r= -.014; p= n.s.). Similar results can be found in the relationships between creative achievements, creative process and the dependent variables.

Table 3 indicates a negative and significant correlation between the self-reported cheating scale and honest personality, showing that participants with a consistent honest personality reported to cheat less than participants with low honest personality, in line with our expectations.

The two measures adopted for dishonest behaviour do not strongly correlate, thus are kept separately and no composite measure has been computing for them, in contrast with previous studies (Gino and Ariely, 2012).

The first group of analysis was conducted having as dependent variable the cheating scale, while the second group has the cheating task.

The first round of models that are reported in table 4 show the three steps taken before conducting the second stage moderated mediation analysis: a regression analysis with the control variables, a parallel mediation regression analysis and a moderator analysis between creative personality, honest personality and cheating scale.

From the parallel mediation analysis it becomes clear that creative achievements and creative process do not mediate the relationship between creative personality and dishonest behaviour when the latter is measured with the self-reported cheating scale. Findings from previous studies are in contradiction with ours, as they report the creative process of divergent thinking to be a driver for people to tell lies, as it increases the ability to generate justification for cheating (Walczyk et al., 2008; Gino and Ariely, 2012; Gino and Wiltermuth, 2014).

Model 3 represents the moderator regression analysis that was conducted to investigate the role of honesty in the relationship between creative personality and self-reported cheating. The data reflects that the interaction term is a better predictor of cheating scale than honest personality or creative personality alone, suggesting that the relationship between creative personality and cheating behaviour is stronger when it is moderated by honest personality. Thus, individuals with a low honest personality have a high creative personality and engage more in cheating behaviours, supporting our theoretical model and the findings from Beaussart et al. (2013).

Lastly, a second stage moderated mediation analysis was conducted, having self-reported cheating scale as dependent variable, creative personality as independent variable, creative process and creative achievements as mediators and honest personality as moderator of the relationships between the three kinds of creativity and cheating scale. The results confirm the findings of model 2, as the mediations effects are not significant, and the results of model 3, as the interaction term between honest personality and creative personality is positive and significant at a high level of honest personality. Interaction term 2, between honest personality and creative process, and interaction term 3, between creative achievements and honest personality, are not significant. Those data suggest that honest personality has a moderator effect on the relationship between creative

personality and dishonest behaviour, supporting hypothesis 1b, but not between creative process and cheating scale and between creative achievements and cheating scale, against the hypothesis 2c and 3c.

The conditional indirect effect of honest personality on the relationship between creative personality and dishonest behaviour via creative process is significant when honest personality is high (i.e. one standard deviation above the mean, 5,9324), but the index of moderated mediation has 95% CI crossing zero (- ,0013 to ,00579). Also the index of moderated mediation of honest personality on the relationship between creative personality and dishonest behaviour via creative achievements contains zero and is therefore not statistically significant.

The analysis reveals that there is no moderated mediation happening, consistent to the results on model 2 that did not find creative achievements and creative process to have a mediation role. Honest moderates only the relationship between creative personality and dishonest behaviour, consistent to hypothesis 1b.

Overall, the results of this study indicate that individuals with low honest personality have a higher creative personality and report to engage more in cheating behaviours than individuals with high honest personality. The idea that creative personality and honest personality are have a negative and significant correlation was previously empirically supported by Beaussart et al. (2013).

For the second round of analysis, we used as dependent variable the cheating task. We can see that, by changing the dependent variable, the results are quite different. In fact, as creative personality does not have an effect on this measure of dishonest behaviour, the moderation mediation hypotheses are not empirically supported.

4.2 Study 2.1

4.2.1 Results, Descriptive Statistics

The data in table 7 indicates the results from the Pearson correlation analysis. Firstly, we can see a significant and positive relationship between creative personality and creative process (r = .262, p = .05), and between creative personality and everyday achievements (r = .546, p = .01), that provide support for hypotheses 2a and 3a.

From the table 7 it is clear that the relation between creative process and dishonest behaviour is not significant (p=,073). Yet, the relationship between everyday achievements and dishonest behaviour (r= .305 p= .01) and between creative personality and dishonest behaviour (r = .244; p = 0,05) are significant and positive, supporting the hypothesis 1 and 3b.

Honest personality negatively correlates with the three types of creativity, even if significantly only with creative achievements (r= - .267; p= .05). Honest personality also negatively

correlates with the self reported cheating scale (r= -,582; p= ,01), suggesting that the more honest a person is, the less likely he/she will act dishonestly.

TABLE 7 - DESCRIPTIVE STATISTICS AND CORRELATIONS (USING RAW SCORES FOR EACH MEASURE), STUDY 2.1.

		1	2	3	4	5	6	7
	1. Personality: Hexaco, "Openness to experiences"							
CREATIVITY	2. Process: creative task, list uses of a random object	,262*						
	3. Achievements: Everyday creative achievement, 11 items Kaufman's scale	,546**	,195					
HONESTY	4. Personality: Hexaco, "Honesty"	-,155	-,073	-,267**				
DISHONEST BEHAVIOUR	5. Self-reported cheating scale	,244*	,073	,305**	-,582**			
CONTROL VARIABLES	6. Gender (1=male; 2=female)	-,158	-,007	-,056	-,127	,127		
	7. Nationality (0=Western; 1=Eastern)	,262*	,017	,042	,050	-,050	,007	
	Mean	39,57	7,16	39,43	24,74	12,11	1,87	,26
	S.D.	6,349	4,519	6,809	5,801	3,129	,337	,440
	Min.	0	0	0	12	6	1	0
	Max.	50	27	50	50	20	2	1

N = 93

** p = 0,01; * p = 0,05; two tailed

TABLE 8 - SECOND STAGE MODERATED MEDIATION REGRESSION ANALYSIS - STUDY 2.1.

Variables	*Dependent variable:* Dishonest Behaviour, Self-reported Cheating											
	Model 1			Model 2			Model 3			Model 4		
	β[a]	SE	t	β [a]	SE	CI [b]	β [a]	SE	CI [b]	β[a]	SE	CI [b]
Predictor variable:												
Creative Personality [d]							,0624	,0500	- ,0370 to ,1618	,0204	1,5506	- ,1010 to ,1419
Honest Personality [d]							-,2905***	, 0498	- ,3894 to - ,1915	- ,2711***	,0513	- ,3732 to - ,1619
Interaction term 1 [e]							,0017	,0031	- ,0045 to ,0080	-,0037	,0103	- ,0241 to ,0168
Mediator variables:												
C. Achievements [d]				,1252	,0495	,0268 to ,2237				,0380	,0522	- ,0657 to - ,1418
Interaction term 2 [e]										,0051	,0107	- ,0162 to ,0264
Creative Process [d]				-,0051	,0018	- ,1478 to ,1376				- ,0013	,0667	- ,1340 to ,1314
Interaction term 3 [e]										,0054	,0140	- ,0224 to ,0331
Control variables:												
Gender	-1,789†	,954	- 1,885							- 1,0286	,8162	- 2,6524 to ,5951
Nationality	,820	,731	1,122							,4032	,6429	- ,8756 to 1,6821

Honest Personality [c]	**Conditional Indirect Effect** Creative Personality -> *Creative Process* -> Dishonest Behaviour			**Conditional Indirect Effect** Creative Personality -> *Creative Achievements* -> Dishonest Behaviour		
	β[a]	Boot SE	CI [b]	β[a]	Boot SE	CI [b]
-5,8225	*- ,0065*	*,0220*	*-,0461 to ,0486*	*,0052*	*,0590*	*-,0992 to ,1439*
0,0000	*- ,0003*	*,01720*	*-,0263 to ,0461*	*,0239*	*,0352*	*-,0294 to ,1120*
5,8225	*,0060*	*,0331*	*- ,0443 to ,0882*	*,0426*	*,0568*	*-,0611 to ,1650*
	Index of moderated mediation			**Index of moderated mediation**		
Honest Personality	,0011	,0038	- ,0056 to ,0099	,0032	,0079	- ,0148 to ,0175

n = 93; *† p < .10; * p < .05; ** p < .01; *** p < .001.*

[a] Unstandardized beta coefficients reported. Bootstrap sample size = 5000.

[b] 95% bias-corrected bootstrap confidence intervals reported.

[c] Honest personality values are the mean +/- SD from the mean.

[d] The variable was mean-centered prior to analysis.

[e] There are no statistical significance transition points within the observed range of the moderator found using the Johnson-Neyman method.

4.2.2 Regression analysis

A regression analysis was conducted to see whether the control variable of gender and nationality are predictors for dishonest behaviour, measured with the self-reported cheating scale. Age was not considered as control variable, because the 91.7% of the sample is between 18 and 24 years old. Gender (1=male; 2=female) quite significantly negatively affects dishonest behaviour, suggesting that male tend to cheat more than female.

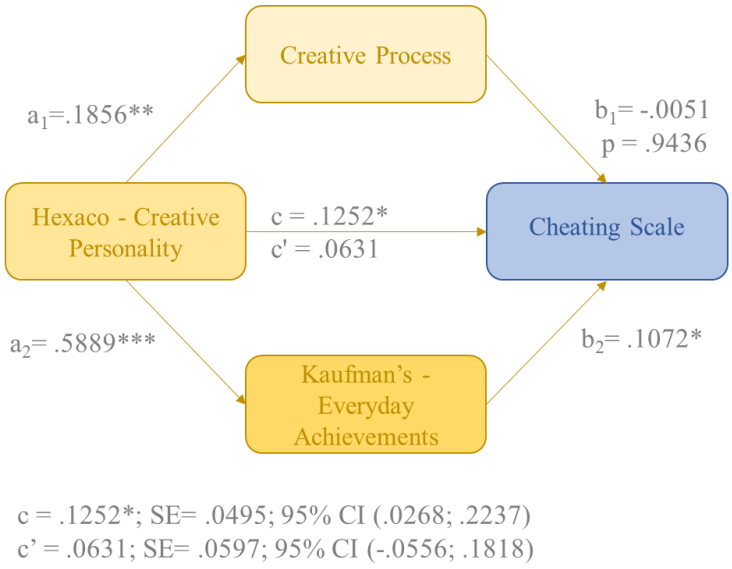


FIGURE 4 – PARALLEL MEDIATION, STUDY 2.1. THE MEDIATING EFFECT OF CREATIVE PROCESS AND CREATIVE ACHIEVEMENTS ON THE RELATIONSHIP BETWEEN CREATIVE PERSONALITY AND DISHONEST BEHAVIOUR. NOTES: *P < .05, **P < .01, ***P<.001; ALL THE EFFECTS PRESENTED ARE UNSTANDARDIZED; C' IS DIRECT EFFECT OF CREATIVE PERSONALITY ON CHEATING SCALE; C IS TOTAL EFFECT OF CREATIVE PERSONALITY ON CHEATING SCALE.

To test the hypothesis of a parallel mediation, an analysis was conducted, following the logic outlined by Baron and Kenny (1986).

The relationship between creative personality and creative process (path a^1) was tested, and results to be significant (b = .1856, SE = .0721, p= 0117). Yet, creative process and dishonest behaviour (path b^1) are not significantly correlated after controlling for creative personality (b = .0051, SE = .0718, p= 9436), suggesting that the mediation effect of creative process on the relationship between creative personality and dishonest behaviour cannot be supported (Baron et Kenny, 1986).

As Figure 4 illustrates, the standardized regression coefficient between creative personality and everyday achievements (path a^2) is statistically significant (b= .5889, SE= .0946, p= .0000), as it is the standardized regression coefficient between everyday achievements and cheating scale (path b^2), (b= .1072, SE= .0547, p= .0435).

The direct effect of creative personality on the cheating scale (path c'), (b= .0631; SE= .0597; 95% CI -.0556, .1818) is not statistically significant and it is closer to zero than the total

effect of creative personality on cheating scale (path c), (b= .1252; SE= .0495; 95% CI .0268, .2237). This suggests that creative personality is no longer a significant predictor of dishonest behaviour after controlling for the mediator, creative achievements, consistent with full mediation.

Approximately 10% of the variance in cheating scale was accounted for by the predictors (R^2 = .1053). Cheating scale is associated with approximately .0621 points higher creative personality as mediated by creative achievements.

As shown in table 9, the moderator analysis included honest personality and creative personality in order to test hypothesis 1b: *The relationship between creative personality and dishonest behaviour is moderated by honest personality.*

To avoid a problem of high multicollinearity with the interaction term, the variables were centered and an interaction term between honest personality and creative personality was created (Aiken & West, 1991). Next, the centered variables and the interaction term were included in the regression model. The overall model was significant, R^2= ,3653; F= 17,0778; p= ,0000.

Results indicate that creative personality is not significantly associated with dishonest behaviour (b = .0624, SE = .0500, p = .2155) while honest personality has a negative and significant effect on dishonest behaviour (b = -.2905, SE = .0498; p=.0000). The interaction between honest personality and dishonest behaviour is slightly positive but not statistically significant (b = .0017, SE = .0031; p=.5785). The second part of table 9 suggests that this interaction is not significant at any levels of honest personality (i.e. one standard deviation below or above the mean, and the mean), as 95% CI always crosses zero. Besides, there are no statistical significance transition points within the observed range of the moderator found using the Johnson-Neyman method.

Simple slopes, plotted in graph 4, visually represent the lack of interaction. The moderator regression analyses suggest that honest personality do not act as a moderator in the relationships between creativity and dishonesty.

TABLE 9 - SELF-REPORTED CHEATING PREDICTED FROM HONEST PERSONALITY AND CREATIVE PERSONALITY, STUDY 2.1.

Predictor	B	SE	t	p	CI
Honest personality [b.]	-,2905	,0498	-5,8317	,0000	-,3894 to -,1915
Creative Personality [b.]	,0624	,0500	1,2474	,2155	-,0370 to ,1618
Honest P. x C. Personality	,0017	,0031	,5576	,5785	-,0045 to ,0080
R^2 = ,3653 F= 17,0778					

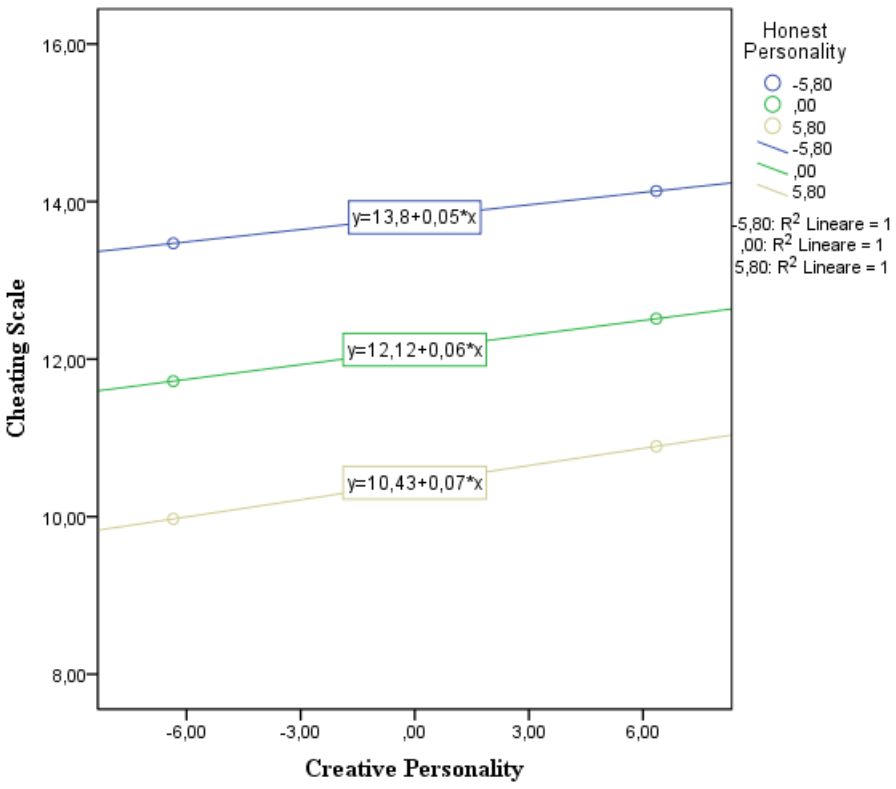
Honest Personality [c]	Effect	SE	t	p	CI
-5,8009	,5230	,0617	,8473	,3991	-,0703 to ,1749
,0000	,0624	,0500	1,2474	,2155	-,0370 to ,1618
5,8009	,0725	,0430	1,6844	,0956	-,0130 to ,1580

a. Dependent Variable: Self-Reported Cheating Scale

[b.] The variable was mean centered prior to analysis.

[c] Honest personality values in conditional table are the mean and +/- SD from the mean.

GRAPH 4 - SIMPLE SLOPES, STUDY 2.1.



A moderated mediation analysis was conducted using model 15 of the macro "PROCESS" for SPSS (3.0 version) developed by Hayes (2013), 95% confidence for bias-corrected bootstrap confidence intervals (CIs) with 5000 bootstrap samples estimate. The results are summarized under model 4 of table 8. As the table depicts, creative personality does not have a significant effect on dishonest behaviour as 95% CI contains zero (β =,0204; CI=-,1010 to ,1419), while honest personality has a negative significant effect on it (β =-,2711; CI= -,3732 to -,1619). The interaction term between creative personality and honest personality is a negative and not significant predictor of dishonest behaviour, (β =-,0037; CI= -,0241 to ,0168).

As shown in the table 8, creative achievements has a positive and significant effect on dishonest behaviour, (β = ,0380;CI= -,0657 to -,1418) but the interaction term between honest personality and creative achievements is not a significant predictor of cheating, as 95% CI crosses zero (β =,0051; CI= -,0162 to ,0264). Creative process (β =-,0013; CI= -,1340 to ,1314) and the interaction term between creative process and honest personality (β =,0054; CI= -,0224 to ,0331) are both not significantly affecting dishonest behaviour.

Concerning the control variables, the table shows that both gender and nationality do not relate significantly with dishonest behaviour, with gender having β= -1,0286 and 95% CI containing zero (-2,6524 to ,5951) and nationality β=,4031, 95% CI= -,9756; 1, 6821.

The second part of the table represents the indirect effect of creative personality on dishonest behaviour via creative process, which is not significant at any levels of honest personality (i.e. one standard deviation below the mean, the mean, one standard deviation above the mean). As zero crosses the interval of the bootstrapping analysis for this index of moderated mediation, the conditional indirect effect is not supported (index=,0011; CI= -,0056 to ,0099). Additionally, the moderating effect of honest personality on the relationship between creative personality and self-reported cheating via creative achievements is not significant at any levels of honesty. The control interval of the index of moderated mediation is not statistically significant (index=,0032; CI=-,0148 to ,0175).

4.2.3 Discussion

The purpose of study 2.1 was to test whether creative personality and dishonest behaviour are positively correlated thanks to the mediating role of creative process and creative achievements, and to understand if the relationships between the three types of creativity and dishonest behaviour are moderated by honest personality, controlling for gender and nationality. To this end, a sample of students was chosen. To test the hypotheses, we conducted a regression analysis with the control

variables, followed by a parallel mediation analysis, a moderator analysis, and lastly a second-stage moderated mediation regression analysis.

Table 8 begins with model 1, where we tested if students who scored high on the creativity personality test ("Openness to experiences" subcategory of HEXACO), also performed better in the creative process task (list uses of a pen) and reported to be more capable than others in achieving everyday goals (K-DOCS for small creativity). Table 7 depicts that creative personality correlates significantly and positively both to creative process and to creative achievements, providing empirical evidences to support hypotheses 2 and 3.

Moving from other empirical findings (Gino and Ariely, 2012), we analysed if there is a relationship between creative personality and dishonest behaviour, and found that the first positively and significantly correlates to the latter (), suggesting that dishonest behaviour is affected by a creative personality. This supports hypothesis 1.

The table also depicts a negative and significant correlation between the self-reported cheating scale and honest personality (), implying that students who have a consistent honest personality cheat less than students with low honest personality, in line with our expectations.

Model 2 of table 8 depicts the parallel mediation analysis. The analysis reveals that creative process does not act as a mediator of relationship between creative personality and dishonest behaviour (), while creative achievements does (). In fact, the relationship is fully mediated, suggesting that people with a creative personality are more creative than others in achieving everyday goals, and thus, they engage in dishonest behaviours, in the forms of cheating or lying.

In order to test if the relationship between creative personality and dishonest behaviour is moderated by honest personality (hypothesis 1b), model 3 shows the results of the moderation regression analysis was conducted. The effect of creative personality on dishonest behaviour is not moderated by honest personality (), against previous findings (Beaussart et al., 2013).

Lastly, a second stage moderated mediation analysis was conducted, with self-reported cheating scale as dependent variable, creative personality as independent variable, creative process and creative achievements as mediators and honest personality as moderator of the relationships between the three kinds of creativity and cheating scale. The results do not provide support for the findings of model 2, as both the mediations effects are not significant, while it confirms the results of model 3, as honest personality does not moderate the relationship between creative personality and cheating scale (). Interaction term 2, between honest personality and creative process (), and interaction term 3, between creative achievements and honest personality (), are also not significant.

The conditional indirect effect of honest personality on the relationship between creative personality and dishonest behaviour via creative process is not statistically significant (), and the

index of moderated mediation has also a 95% CI crossing zero (). On the other side, the index of moderated mediation of honest personality on the relationship between creative personality and dishonest behaviour via creative achievements does contain zero and is also not statistically significant (). Hypothesis 1b, 2c and 3c are not proved by empirical evidences and model 4 also shows that creative achievements and creative process do not mediate the relationship between creative personality and dishonest behaviour, controlling for gender and nationality.

Overall, the results of study 2.1 allow us to state that the effect of creative personality on dishonest behaviour is fully mediated by everyday achievements. This happens when the moderation effect of honest personality is not taken into account.

4.3 Study 2.2

4.3.1 Results, Descriptive statistics

In order to determine the relationship between the ten variables measured in this study, a Pearson product correlation was conducted and results are reported in table 10. Surprisingly, we found that creative personality correlates negatively and significantly with the Duncker's candle problem (r= - .328; p= .039), and slightly negatively but not significantly with the pen task (r= - .258;p= .107) and the alien task (r= - .194;p= .230), against hypothesis 2. However, the alien task, the pen task and the Dunker candle problem have a positive effect on one another, however not significant, thus the decision is to keep them separated and not to create a conjoint variable named creative process (Gino and Ariely, 2012). Hypothesis 3 is also not supported, as creative personality positively relates with creative achievements, but not in a significant way (r= .255;p= .112).

It was hypothesized that the relationships between creative personality and dishonest behaviour is positive and statistically significant. Table 10 shows that creative personality is negatively and not significantly related with cheating scale (r= - .272; p= .089) while it is positively but not significantly related to cheating task (r= .143; p= .380), thus the results are inconsistent with our hypothesis. Also the other variables that measure different facets of creativity do not provide evidences of a significant positive correlation between creativity and dishonesty.

The table also shows that honest personality has a strong and negative relationship with the self-reported cheating scale (r= - .470; p= .002), and with the cheating task (r= - 152; p= .349), suggesting that the more honest the student is, the less he/she cheats.

TABLE 10 - DESCRIPTIVE STATISTICS AND CORRELATIONS (USING RAW SCORES FOR EACH MEASURE), STUDY 2.2.

	VARIABLES:	1	2	3	4	5	6	7	8	9	10
CREATIVE PERSONALITY	1. Hexaco, Openness to experiences										
CREATIVE PROCESS	2. Pen task	*-,258*									
	3. Dunker candle problem [d]	*-,328**	*,223*								
	4. Alien task	*-,194*	*,143*	*,085*							
CREATIVE ACHIEVEMENTS	5. 11 items Kaufman's scale	*,255*	*-,074*	*-,301*	*-,126*						
HONEST PERSONALITY	6. Hexaco, Honesty Scale	*,253*	*-,005*	*-,024*	*,045*	*-,016*					
DISHONEST BEHAVIOUR	7. Self-reported cheating scale	*-,272*	*,175*	*,080*	*-,110*	*,078*	*-,470***				
	8. Cheating task [a]	*,143*	*-,159*	*-,197*	*,020*	*,190*	*-,152*	*,107*			
CONTROL VARIABLES	9. Gender [b]	*-,190*	*-,090*	*-,019*	*-,311*	*-,033*	*,237*	*-,205*	*,087*		
	10. Nationality [c]	*,373**	*-,103*	*-,020*	*-,214*	*,197*	*,054*	*,094*	*-,109*	*,051*	
	Mean	*39,90*	*7,13*	*2,13*	*21,06*	*39,48*	*24,63*	*11,75*	*,25*	*1,88*	*84,18*
	S.D.	*5,047*	*4,570*	*2,503*	*8,782*	*6,144*	*5,541*	*2,706*	*1,104*	*0,335*	*49,53*
	Min.	*26*	*0*	*0*	*7,80*	*11*	*12*	*7*	*0*	*1*	*4*
	Max.	*50*	*27*	*5*	*35,60*	*50*	*36*	*20*	*5*	*2*	*218*

N = 40
** p = 0,01; * p = 0,05.
[a] 0=non cheaters; 1=cheaters
[b] 1=male; 2=female
[c] 0=Western; 1=Eastern
[d] 0= Not solved; 5= solved

4.3.2 Regression analysis, Dependent variable: Cheating Scale

For the second stage moderated mediation regression analysis we used macro for SPSS "Process" (Hayes, 2013), model 15. Our independent variable is creative personality, the dependent variable the cheating scale, alien task is the mediator and honest personality the moderator.

Results from the analysis are in table 11 which shows that the effect of creative personality on the alien task is not statistically significant (β= -.3308; p= .2297). The relationship between the alien task and the cheating scale is also not significant and a bit negative (β= - .0553; p= .2397), as the direct effect of creative personality on cheating scale (β= -.1201; p= .1769). For those reasons, the mediational hypothesis cannot be supported (Baron and Kenny, 1986). Honest personality is not mediating the relationship between the alien and the cheating scale (Interaction term_2: β= .0059; p= .5988) and the relationship between creative personality (Interaction term_1: β= -.0131; p= .2611) and cheating scale, as the independent variables do not affect the dependent variable. The results do not vary at any levels of honest personality (i.e. one standard deviation above the mean, the mean, one standard deviation below the mean) and there are no statistical significance transition points within the observed range of the moderator found with the Johnson-Neyman method. As both the direct and indirect effects on creative personality on dishonest behaviour are not significant, the index of moderated mediation is also negative and not significant (index= - .0020, SE= .0065, 95% CI -.0197 to .0070), suggesting that creative personality does not have an effect on cheating scale.

TABLE 11 - SECOND STAGE MODERATED MEDIATION REGRESSION ANALYSIS, ALIEN TASK, SELF-REPORTED CHEATING SCALE, STUDY 2.2.

Dependent variable: Cheating Scale				
Model 1	*Beta* [b]	*SE*	*t*	*p*
Honest Personality [a]	-.1762	.0748	- 2.2568	.0243
Creative Personality [a]	- .1201	.0871	- 1.3790	.1769
Interaction term 1	- .0131	.0115	- 1.1417	**.2611**
Alien task [a]	- .0553	.0462	- 1.1968	.2397
Interaction term 2	.0059	.0111	.5312	**.5988**
Index of moderated mediation				
Honesty	- .0020	.0065	95 % CI (- .0197; .0070)	

[a] The variable was mean-centered prior to analysis.
[b] Unstandardized beta coefficients reported

In the next step, summarized in table 12, we also adopted "Process" macro for SPSS (Hayes, 2013), model 15, having as dependent variable cheating scale, independent variable creative

personality, moderator honest personality and for mediator the pen task. The results show that creative personality does not have a direct statistically significant effect on cheating scale (β= -.0895; p= .3018). Creative personality does not affect significantly the pen task, (β= - .2340; p= .1073), and pen task is not predicting cheating scale (β= .0712; p= .4346). For those reasons, the mediational hypothesis is not supported. The table also shows that honest personality does not moderate the relationship between creative personality and cheating scale, as interaction term1 is not significant (β=- ,0130; p= .3006), and the relationship between the pen task and cheating scale (interaction term2: β = .0054; p= .8512). Different levels of honest personality (i.e. one standard deviation above the mean, the mean, one standard deviation below the mean) and the Johnson-Neyman method do not prove a statistical significant transition point. The direct and indirect effect of creative personality on dishonest behaviour are not significant, and the index of moderated mediation is not significant too (index= - .0013; SE= .0094; 95%CI - .0189 to .0215).

TABLE 12 - SECOND STAGE MODERATED MEDIATION REGRESSION ANALYSIS, PEN TASK, SELF-REPORTED CHEATING SCALE, STUDY 2.2.

Dependent variable: Cheating Scale				
Model 1	*Beta* [b]	*SE*	*t*	*p*
Honest Personality [a]	-.1945	.0753	- 2.5849	.0142
Creative Personality [a]	- .0895	.0853	- 1.0486	.3018
Interaction term 1	- .0130	.0124	- 1.0512	**.3006**
Pen task [a]	.0712	.0901	.7907	.4346
Interaction term 2	.0054	.0286	.1890	**.8512**
Index of moderated mediation				
Honesty	- .0013	.0094	95 % CI (- .0186; .0215)	

[a] The variable was mean-centered prior to analysis.
[b] Unstandardized beta coefficients reported

Everyday creative achievements accounts as the mediator variable in the next model, depicted in table 13, while creative personality is the independent variable, cheating scale the dependent variable and honest personality the moderator. This case presents creative personality to have a positive but not significant effect on creative achievements (β= .3109; p= .1117), and creative achievements to have a slightly positive but not statistical significance influence on cheating scale (β= .0637; p= .3519). The direct effect of creative personality on cheating scale is negative and not significant (β= -.1307; p= .1334), showing that the hypothesis of mediation cannot be supported. As there is no effect of creative personality on cheating scale or of creative achievements on cheating scale (β= .0637; p= .3519), honest personality cannot be moderating

them. In fact, at any levels of honest personality there are no statistically significant transition points observed with the Johnson-Neyman technique, and the index of moderated mediation is in line with those findings (index= - .0020; SE= .0103; 95% CI= - ,0345 to .0075).

TABLE 13 - SECOND STAGE MODERATED MEDIATION REGRESSION ANALYSIS, CREATIVE ACHIEVEMENTS, SELF-REPORTED CHEATING SCALE, STUDY 2.2.

Dependent variable: Cheating Scale				
Model 1	*Beta* [b]	*SE*	*t*	*p*
Honest Personality [a]	-.1711	.0803	- 2.1315	.0404
Creative Personality [a]	- .1307	.0850	- 1.5376	.1334
Interaction term 1	- .0099	.0134	- .7352	**.4673**
Achievements [a]	.0637	.0675	.9438	.3519
Interaction term 2	- .0065	.0164	- .3985	**.6928**
Index of moderated mediation				
Honesty	- .0020	.0103	95 % CI (- .0345; .0075)	

[a] The variable was mean-centered prior to analysis.
[b] Unstandardized beta coefficients reported

PROCESS macro for SPSS does not allow to use a dichotomous mediator, thus in order test whether Dunker candle task is the variable that mediates the relationship between creative personality and cheating scale, a regression analysis was conducted. In table 14, model 2, path c shows that creative personality is a significant and negative predictor of cheating scale (β= -.146; p= .089), and path a illustrates that it is a significant predictor of Dunker candle task (β= -.163; p= .039). However, the Duncker candle task does not affect the cheating scale, path b, (β= .087; p= .622), thus the mediational hypothesis cannot be supported. Table 14, model 1, suggests that the effect of creative personality on self-reported cheating (β = - .099; SE= .091; p= .285) does not depend on the level of honest personality (β = - .193; SE= .077; p= .017), as the interaction between honest personality and creative personality on the self-reported cheating scale falls short of statistical significance (β = - .009; SE= .014; p= .517).

TABLE 14 - SECOND STAGE MODERATED MEDIATION REGRESSION ANALYSIS, DUNCKER CANDLE TASK, SELF-REPORTED CHEATING SCALE, STUDY 2.2.

Dependent variable: Cheating Scale				
Model 1	*Beta* [b]	*SE*	*t*	*p*
Honest Personality [a]	-.193	.077	- 2.521	.017
Creative Personality [a]	- .099	.091	- 1.086	.285
Interaction term 1	- .009	.014	- .655	**.517**
Duncker candle [a]	.005	.170	.027	.979
Interaction term 2	.016	.037	.427	**.672**
Model 2	*Beta* [b]	*SE*	*t*	*p*
Path a	- .163	.076	- 2.138	**.039**
Path b	- .011	.181	- .059	**.953**
Path c	- .146	.084	- 1.744	**.089**
Path c'	- .148	.090	- 1.645	**.108**

[a] The variable was mean-centered prior to analysis.
[b] Unstandardized beta coefficients reported

4.3.3 Regression analysis, Dependent variable: Cheating Task

Creative personality, the independent variable, does not affect cheating task, dependent variable, with significance evidence (β= .031; p= .380).

Model 1 of table 15 shows that honest personality is not moderating the relationship between creative personality and cheating task, as the interaction term is not significant (β= - .002; p= .690) and is not moderating the relationship between the alien task and the cheating scale (β= .001; p= .856).

Model 2 of table 15 depicts that the alien task is not mediating the relationship between creative personality and cheating task (path c'), as creative personality does not affect significantly the alien task variable (path a), β= - .074; p= .269. Following the causal steps method by Baron and Kelly (1986), our hypotheses cannot be supported.

TABLE 15 - SECOND STAGE MODERATED MEDIATION REGRESSION ANALYSIS, ALIEN TASK, CHEATING TASK, STUDY 2.2.

Dependent variable: Cheating Task				
Model 1	*Beta* [b]	*SE*	*t*	*p*
Honest Personality [a]	-.030	.033	- .895	.377
Creative Personality [a]	.039	.037	1.048	.302
Interaction term 1	- .002	.005	-.402	**.690**
Alien Task [a]	.003	.021	.121	.904
Interaction term 2	.001	.005	.182	**.856**
Model 2	*Beta* [b]	*SE*	*t*	*p*
Path a	- .338	.277	- 1.221	**.230**
Path b	.009	.021	.411	**.684**
Path c	.031	.035	.898	**.380**
Path c'	.027	.031	.977	**.387**

[a] The variable was mean-centered prior to analysis.
[b] Unstandardized beta coefficients reported

Next, we investigate whether the creative process measured with the pen task is mediating the relationship between creative personality and dishonest behaviour, captured with the cheating task, and whether honest personality moderates the relationship between creative personality and cheating task and between the pen task and the cheating task.

Model 1 of table 16 shows the moderator regression analysis. We can see that the effect of creative personality on cheating task is not significant (β= .028; p= .458), as also the effect of honest personality on the dependent variable (β= - .037; p= .271). The interaction term between them is not a better predictor, as it is not statistically significant (β= - .007; p= .180). Honest personality does not mediate the relationship between pen task and cheating task. In fact, the interaction term is not significant (β= .024; p= .067).

The second part of the table provides details regarding the moderator analysis. It becomes clear that the creative personality is not a significant predictor of the pen task (path a, β= - .032; p= .439) and of cheating task (path c, β= .031; p= .380). Besides, the pen task does not have an effect on the cheating task (path b, β= - .244; p= .107). Thus, the mediational hypothesis cannot be supported.

TABLE 16 - SECOND STAGE MODERATED MEDIATION REGRESSION ANALYSIS, PEN TASK, CHEATING TASK, STUDY 2.2.

Dependent variable: Cheating Task				
Model 1	*Beta* [b]	*SE*	*t*	*p*
Honest Personality [a]	-.037	.033	- 1.118	.271
Creative Personality [a]	.028	.038	.750	.458
Interaction term 1	- .007	.005	- 1.368	**.180**
Pen Task [a]	- .041	.040	- 1.035	.308
Interaction term 2	.024	.013	1.896	**.067**
Model 2	*Beta* [b]	*SE*	*t*	*p*
Path a	- .032	.040	- .783	**.439**
Path b	- .234	.142	-1.649	**.107**
Path c	.031	.035	.898	**.380**
Path c'	.024	.037	.652	**.519**

[a] The variable was mean-centered prior to analysis.
[b] Unstandardized beta coefficients reported

TABLE 17 - SECOND STAGE MODERATED MEDIATION REGRESSION ANALYSIS, EVERYDAY ACHIEVEMENTS, CHEATING TASK, STUDY 2.2.

Dependent variable: Cheating Task				
Model 1	*Beta* [b]	*SE*	*t*	*p*
Honest Personality [a]	-.031	.037	- .827	.414
Creative Personality [a]	.029	.039	.736	.467
Interaction term 1	- .001	.006	- .208	**.836**
Everyday Achievement [a]	.029	.031	.920	.364
Interaction term 2	- .002	.008	- .230	**.820**
Model 2	*Beta* [b]	*SE*	*t*	*p*
Path a	.311	.191	1.229	**.112**
Path b	.030	.030	.989	**.329**
Path c	.031	.035	.898	**.380**
Path c'	.022	.036	.606	**.548**

[a] The variable was mean-centered prior to analysis.
[b] Unstandardized beta coefficients reported

Finally, we compute the moderation and mediation analysis using everyday creative achievements as mediator. The first part of table17 reports data from the moderation analysis. Honest personality (β= - .031; p= .414) and creative personality (β= .029; p= .467) are both not significantly affecting cheating task, the interaction term between them is not as well (β= - .001; p=

.836). The second part of the table shows that the mediational hypothesis cannot be supported as the relationship between creative personality and the cheating task is not statistically significant (path c, β= .031; p= .380), as it is the effect of creative personality on everyday achievements (path a, β= .311; p= .112) and of everyday achievements on cheating task (path b, β= .030; p= .329).

Lastly, the relationship between creative personality and cheating task is here studied to test whether is it mediated by the Dunker's candle variable and mediated by honest personality. Table 18 depicts that honest personality is not acting as the moderator of this relationship (interaction term 1: β= .675; p= .999). Model 2 shows that the effect of creative personality on cheating task is not statistically significant (path c, β= .031; p= .380), while the variable has a negative and significant effect on the Dunker's candle (path a, β= - .163; p= .039). The latter is not a significant predictor of the cheating task (path b, β= .031; p= .380), and for this reason the mediational hypothesis cannot be supported.

TABLE 18 - SECOND STAGE MODERATED MEDIATION REGRESSION ANALYSIS, DUNCKER CANDLE TASK, CHEATING TASK, STUDY 2.2.

Dependent variable: Cheating Task				
Model 1	*Beta* [b]	*SE*	*t*	*p*
Honest Personality [a]	-.037	.035	- 1.060	.247
Creative Personality [a]	.033	.042	.786	.438
Interaction term 1	.675	.006	.001	**.999**
Dunker's candle [a]	- .067	.078	- .867	.395
Interaction term 2	.011	.017	.657	**.516**
Model 2	*Beta* [b]	*SE*	*t*	*p*
Path a	- .163	.076	- 2.138	.039
Path b	- .074	.075	- .992	**.328**
Path c	.031	.035	.898	**.380**
Path c'	.019	.037	.514	**.610**

[a] The variable was mean-centered prior to analysis.
[b] Unstandardized beta coefficients reported

4.3.4 Discussion, study 2.2

The correlation analysis of study 2.2 shows that openness to experience and everyday creativity positive and significantly correlate with one another, consistent with the Kaufmann (2012) findings. Everyday creativity and Openness to experiences do not relate significantly and positively with the Dunker's candle problem (Leung et al., 2008), the pen task (Leung and Chiu,

2008) and the alien task (Van Tilburg et al., 2015), all measures of the creative process of divergent thinking, against our expectations based on the literature. The types of creativity are not significantly and positively related to the two dependent variables, cheating scale and cheating task, also against previous findings by Gino and Ariely, (2012), Gino and Wiltermuth, (2014). Honest personality is not significantly and negatively correlated to each measure of creativity, contradicting our hypotheses and findings by Beaussart et al. (2013).

From the regression analyses we can see that creative personality does not have an effect on dishonest behaviour, either when measured with the cheating scale or with the cheating task, and thus honesty cannot be mediating it, and the alien task, pen task, Dunker candle and achievements cannot be mediating it.

5. Discussion and Conclusions

This section points at the empirical findings of the three studies conducted and connects them with the results found in the growing literature in order to answer at the main research question: *What is the relationship between creative personality and dishonest behaviour?*

Implications and limitation of the research will be presented followed by suggestions for future analysis that will close the chapter.

5.1 General discussion

In recent times, a rising number of researches has been stressing the importance that creativity, an all of its forms, has both for the individual, at a micro level, and for societies and businesses, at a macro level. In fact, creativity helps the individuals to reach everyday goals and to overcome ordinary problems in an original way (Gino and Ariely, 2012). Besides, creative products show to generate higher average returns in comparison with "standard" ones (Horibe, 2001) and investments in creativity and innovation have a positive impact on the organizational performances (Lev, 2004). Yet, recent studies put a shadow on the widely accepted view of creativity as a intrinsically positive and beneficial force. In fact, the dark side of creativity has been analysed, focusing on the negative aspects of the creative person, the creative process and the creative product (Runco, 2009). This thesis is specifically interested in the relationship between creativity and morality, and primarily in the way creativity may affect dishonest behaviour.

Moving from the existing literature on this topic (Gino and Ariely, 2012; Gino and Wiltermuth, 2014; Beaussart et al., 2013; Vincent and Kouchaki, 2016), this thesis demonstrates that creativity can produce negative effects by leading individuals to engage in dishonest behaviours.

Study 1 was conducted with a sample of 305 professionals within different creative fields, and it demonstrates that individuals with low scores on honest personality have high scores on creative personality and report to cheat more than individuals with high honest personalities and low creative personalities. Within a sample of 90 students, study 2.1 found that the effect of creative personality on dishonest behaviour is fully mediated by small/everyday achievements and it is not moderated by honest personality. Lastly, study 2.2 does not show creativity to be connected with dishonest behaviour in a sample of 40 students.

5.2 Theoretical Contributions

The present research adds to the growing literature on the dark side of creativity by focusing on the potential effect of creativity on dishonest behaviour and on the dynamics behind it. Specifically, the three studies that have been conducted show different results, suggesting that the relationship between creativity and dishonesty has not been captured in its totality yet. We believe that whether creativity increases dishonesty is a matter of multiple factors that academics have not been able to unarguably interconnect yet.

One minor finding of the study 1 is that there is a positive and significant relationship between creative personality and professional achievements, suggesting that having a high creative personality is an important advantage to reach goals in a creative career (Gino and Ariely, 2012).

The correlation analysis captures that the types of creativity correlate to honest personality mostly negatively, and that most of them have a positive relationship with the two measures of dishonest behaviour, suggesting that creativity promotes dishonest behaviour.

The main finding comes from the moderated regression analysis that demonstrates that honest personality moderates the relationship between creative personality and dishonest behaviour. This finding provides support to the work by Beaussart et al. (2013), who discovered a negative correlation between honesty personality, a trait or facet of integrity, and creativity process, divergent thinking, because with this study we adds empirical evidence of a negative correlation also between honest personality and creative personality. Besides, this study supports the empirical evidences by Gino and Ariely (2012), as professionals in the creative fields with a higher score on creative personality report to cheat more than the others, suggesting that creativity increases dishonesty. This findings contribute to the body of work that investigates on the factors that drive people's decisions to commit a dishonest action, with or without consciousness (Gino & Pierce, 2009; Mazar et al., 2008; Shu, Gino, & Bazerman, 2011). In fact, this study is probably the first to demonstrate that individuals with greater creative personality are less honest and this is the reason why they engage dishonest behaviours. Previous works explained the relationship as caused by three factors: firstly, the lack of constraints that highly creative people feel (Gino and Wiltermuth, 2014), secondly, their ability to generate more justifications for unethical decisions (Gino and Ariely, 2012) and lastly, by the fact that the rarity of creativity in the environment leads creative people to a feeling of entitlement towards dishonest actions (Vincent and Kouchaki, 2016).

Our second study (2.1) provides evidence to both support and contrast the findings of study 1. Similarly, in study 2.1 creative personality has a positive and significant effect on creative achievements (Jauk et al., 2014), and it also has it on creative process, suggesting that being creative implies being able to reach goals or overcome obstacles in the ordinary life challenges, and

also having the skill to think divergently. This findings add to the existing literature empirical evidence regarding the beneficial outcomes of everyday creativity for the mental health of the individual (Cropley, 1990; Cropley, 2010), by demonstrating the connection between creative personality and everyday creativity.

The analysis conducted in study 2.1 depicts honest personality not to be mediating the relationship between creative personality and dishonest behaviour. There could be two explanation for this factor. The first one concerns the differences within the two sample. The first sample is numerous (N=305), composed of mostly women (65%), international (21% Americans, 56 nationalities), from different age group (majority is 31,8% , age range 18-29), and with both high and low education (71% has a university degree). The second sample is representative of 90 students from a Bachelor class (100% high education), mostly women (87,1%) between 18 and 24 years old (91,4%), and mainly Dutch (57%). The second reason why honest personality does not mediate the effect of creative personality on dishonest behaviour in study 2.1 can be that this relationship is not as ubiquitous as previously proposed. The major finding of study 2.1 in fact, depicts the relationship as fully moderated by everyday creative achievements, implying that students who score high on creative personality are more original "at work and leisure across the diverse activities of everyday life" (Richards, 2010, p.190), and this might lead them to cheat. This finding adds to the literature concerning the effects of everyday creativity, considered as "universal and central to human survival" and about which scholars have been studying its beneficial outcomes (Richards, 2010; Jauk et al., 2014; Silvia et al., 2014), in order to have an insight on the negative side of it. Besides, this study adds evidence on the existing relationship between creativity and dishonesty (Gino and Ariely, 2012). In comparison to the previous study, this suggests that only small creativity leads to cheating, while professional achievements do not.

The last study, 2.2, portraits a different situation then the ones from study 1 and study 2.1. In fact, in study 2.2 we had the chance to use multiple measures of creativity and of cheating behaviour. After the regression analyses were conducted, we found that none of the variables adopted for measuring creativity has a positive and significant relationship with the cheating scale and/or with the cheating task, suggesting that creativity is not a predictor of dishonesty. This finding is not surprising because, even if it contradicts our hypotheses based on literature, other studies also do not find a relationship between creativity and dishonesty, suggesting that the first is not a predictor of the latter (Dymit, 2015; Morgan, 2016; van Offeren, 2017). Moreover, Sellier and Dahl (2015) test that an honest mind-set can boosts creativity and Olt (2002) suggests that increasing creativity can help to minimize academic dishonesty.

Overall, this thesis supports the view of creativity as a multifaceted construct. Some facets of creativity might have an effect on dishonest behaviour, while others might not, however the interplay between its different categories and other factors that might be involved to relate it with dishonest behaviour are still not undoubtedly known. This topic deserves further research to investigate on it in order for us to reach sounds and ubiquitous conclusions.

5.3 Practical Contributions

This study shows that there is uncertainty in assumption that creative people are more dishonest than the others. From an individual level, we support the beneficial effects that a creative personality has on facing up to everyday challenges, and it is the seed to grow professionally within the creative fields. From a macro prospective, the effectiveness of any types of business depends for a large part on the creative and innovative team, and on the other side, from the honest behaviour of all the employees. Those organization should go on seeking creative minds in order to develop new innovative products. We suggest leaders of organizations to weight the findings from the literature regarding creativity and dishonesty, and be careful when applying them, as this is a field where researchers are still digging to build solid foundations.

5.4 Limitations and Future Directions

The three studies have several limitations that should be acknowledged.

Starting from study 1, there might be problems with the two dependent variables. In fact, the internal consistency of the Self-reported scale was modest, with a Cronbach alpha of .59. This may be due to the small amount of items in this scale (Streiner, 2003). Yet, this scale joins the category of "causal index" (Streiner, 2003), as every question encloses a causal indicator of a different aspect of cheating behaviour and it is believed that in this type of scales the items do not have to correlate with each other (Streiner, 2003). On the other side, it is true that only 8% of the sample cheated on the given task (M = .008: 0 = non-cheaters, 1 = cheaters), implying that this variable represents a rare event and thus is not normally distributed (table 6). In the study conducted by Gino and Ariely (2012, p.19), "the percentage of participants who overstated their performance was also higher (49% vs. 27%, χ 2 [1,N=111]=5.87, p<.05)". The researchers gave participants the chance to cheat by over-reporting their results on a previous math exercise in exchange of an immediate pecuniary reward. It is possible that the reward promised during the survey (having the chance to be among the winners of an Amazon gift card) was not too appealing, close in the time or secure for the participants. This could decreases the subjective value given to the reward (Myerson, et al., 2003) and brought participants not to cheat. Another explanation could be that one of the main constructs

of the study, dishonesty, became apparent during the survey, due to the presence of the Honesty scale from Hexaco and to the Self-reported Cheating Scale, and this may have led participants not to cheat in order to keep a positive view of themselves (Gino et Ariely, 2012; Shalvi et al., 2012).

One last limitation that counts for all the studies, is the way the pen task was measured. We apply one point for each use of the pen listed, then we sum the points to create a final score for creative process in order to get a score for fluency (Wilson et al., 1960; Morgan, 2016). However, a more complete measurement of creative process might include also flexibility, that in the study conducted by Leung and Chiu (2008) consisted on the amount of categories of unusual uses generated, that were count for each participant.

Study 2.2 also has several limitations. Firstly, the sample size is quite limited (N= 40) and the number of variables under examination high (ten variables have been tested). This brought to the need of dividing the regression analysis into several parts. Concerning the measures of the dependent variable, cheating scale has a Cronbach alpha below the minimum, .440, thus might not be providing a reliable portrait of the dishonesty of creative students, even if Streiberg (2013) suggests that index scale should not have a high Cronbach alpha. The cheating task instead, was also conducted not in the most precise way. In fact, students were previously asked in sheet1 (page 102) to circle either L or R based on whether they count more items to be spread on the left or on the right side of the screen, for twenty times. It was almost impossible to commit a mistake, due to the time given to count the items for every slide. In the following sheet of paper (page 102), they were invited to cross the letter they crossed the most in the previous task, knowing that giving the correct answer implies having to write a shot essay. During this part of the study, Professor Loots was outside the classroom, and students were given just a few seconds to take their decision, before collecting the booklets. Based on the experience, we suggest following researchers to let the students keep sheet1, and just to hand in sheet2. In this way participants do not have to worry about the cheating.

Future research could move from our limitations. We also suggest that a different task could be adopted where cheating a little bit will lead to a pecuniary reward. Possible topics that could be covered which are related to our main focus could be an analysis of the role of creative environment on cheating behaviour. Besides, future work might be also interested in examining whether creativity (and which type of creativity) has an influence on the motivations that lead people to commit a dishonest action and on the justifications to them. Future research could analyse under which circumstances leaders of cultural or creative organizations tend to behave dishonestly. Lastly, we suggest to study whether increasing creativity in academic tasks can decrease the dishonesty of students or increase a climate of cooperation.

References

Amabile, T. M. (1983). The social psychology of creativity: A componential conceptualization. *Journal of personality and social psychology*, *45*(2), 357.

Amabile, T. M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (1996). Assessing the work environment for creativity. *Academy of management journal*, *39*(5), 1154-1184.

Andreani, O. D., & Pagnin, A. (1993). Moral judgment in creative and talented adolescents. *Creativity Research Journal*, *6*(1-2), 45-63.

Andreasen, N. C. (1987). Creativity and mental illness: Prevalence rates in writers and their first degree relatives. *American Journal of Psychiatry*, 144, 1288–1292.

Ashton, M. C., & Lee, K. (2009). The HEXACO-60: A short measure of the major dimensions of personality. *Journal of Personality Assessment, 91*, 340-345

Averill, J., & Nunley, E. (2010). Neurosis: the dark side of emotional creativity. *The dark side of creativity*, 255-276.

Baltar, F., & Brunet, I. (2012). Social research 2.0: virtual snowball sampling method using Facebook. *internet Research*, *22*(1), 57-74.

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, *51*(6), 1173.

Batey, M., & Furnham, A. (2006). Creativity, intelligence, and personality: A critical review of the scattered literature. *Genetic, social, and general psychology monographs*, *132*(4), 355-429.

Beaussart, M. L., Andrews, C. J., & Kaufman, J. C. (2013). Creative liars: The relationship between creativity and integrity. *Thinking Skills and Creativity*, *9*, 129-134.

Becker, T. E. (1998). Integrity in organizations: Beyond honesty and conscientiousness. *Academy of Management Review*, *23*(1), 154-161.

Bok, S. (1989). *Lying*. New York: Random House.

Bruner, J. S. (1962). The conditions of creativity. In *Contemporary Approaches to Creative Thinking, 1958, University of Colorado, CO, US; This paper was presented at the aforementioned symposium.*. Atherton Press.

Carroll, J. B. (1993). *Human cognitive abilities: A survey of factor-analytic studies*. Cambridge University Press.

Carson, D. K., Bittner, M. T., Cameron, B. R., Brown, D. M., & Meyer, S. S. (1994). Creative thinking as a predictor of school-aged children's stress responses and coping abilities. *Creativity Research Journal*, *7*(2), 145-158.

Carson, S. H., Peterson, J. B., & Higgins, D. M. (2005). Reliability, validity, and factor structure of the creative achievement questionnaire. *Creativity Research Journal*, *17*(1), 37-50.

Chen, A. S. Y., & Hou, Y. H. (2016). The effects of ethical leadership, voice behavior and climates for innovation on creativity: a moderated mediation examination. *The Leadership Quarterly*, 27(1), 1–13.

Cropley, A. J. (1990). Creativity and mental health in everyday life. *Creativity Research Journal*, *3*(3), 167-178.

Cropley, D. H., & Cropley, A. J. (2005). Engineering creativity: A systems concept of functional creativity. *Creativity across domains: Faces of the muse*, 169-185.

Cropley, D. H., Cropley, A. J., Kaufman, J. C., & Runco, M. A. (Eds.). (2010). *The dark side of creativity*. Cambridge University Press.

Cropley, D. H., Kaufman, J. C., & Cropley, A. J. (2008). Malevolent creativity: A functional model of creativity in terrorism and crime. *Creativity Research Journal*, *20*(2), 105-115.

Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of consulting psychology*, *24*(4), 349.

Davis, M. A. (2009). Understanding the relationship between mood and creativity: A meta-analysis. *Organizational behavior and human decision processes*, *108*(1), 25-38.

Decety, J., & Cowell, J. M. (2014). The complex relation between morality and empathy. *Trends in cognitive sciences*, *18*(7), 337-339.

Dymit, K. M. (2015). *Exploring the dark side: Investigating the relationship between creativity and perceptions of dishonesty*. Illinois State University.

Finke, R. A., Ward, T. B., & Smith, S. M. (1992). Creative cognition: Theory, research, and applications.

Florida, R. (2004). The Rise of the Creative Class: And How It's Transforming Work, Leisure, Community and Everyday Life (Paperback).

Freud, S. (1947). *Leonardo da Vinci: A study in psychosexuality*. New York: Random House.

Gamman, L., & Raein, M. (2010). Reviewing the art of crime: What, if anything, do criminals and artists/designers have in common. *The dark side of creativity*, 155-176.

Gascon, L. D., & Kaufman, J. C. (2010). Both sides of the coin? Personality, deviance, and creative behavior. *The dark side of creativity*, 235-254.

Gino, F., & Ariely, D. (2012). The dark side of creativity: original thinkers can be more dishonest. *Journal of personality and social psychology*, *102*(3), 445.

Gino, F., & Pierce, L. (2009). Dishonesty in the name of equity. *Psychological Science*, 20(9), 1153-1160.

Gino, F., & Wiltermuth, S. S. (2014). Evil genius? How dishonesty can lead to greater creativity. *Psychological science*, *25*(4), 973-981.

Gong, Q. (2013). The relationship between negative creativity and moral personality. Master, Nanjing Normal University, Nanjing. http://202.119.108.211/lunwen/list.asp?id=29472.

Haidt, J. (2008). Morality. *Perspectives on psychological science*, *3*(1), 65-72.

Hayes, A. F. (2013). An Introduction to Moderation, Mediation and Conditional Process Analysis.

Horibe, F. (2001). Creating the innovation culture: Leveraging visionaries, dissenters and other useful troublemakers in your organization. *New York*: John Wiley & Sons.

James, K., Clark, K., & Cropanzano, R. (1999). Positive and negative creativity in groups, institutions, and organizations: A model and theoretical extension. *Creativity Research Journal*, *12*(3), 211-226.

Jamison, K. R. (1993). *Touched with fire: Depressive illness and the artistic temperament.* New York: Free Press.

Jauk, E., Benedek, M., & Neubauer, A. C. (2014). The road to creative achievement: A latent variable model of ability and personality predictors. *European journal of personality*, *28*(1), 95-105.

Kampylis, P. G., & Valtanen, J. (2010). Redefining creativity—analyzing definitions, collocations, and consequences. *The Journal of Creative Behavior*, *44*(3), 191-214.

Kapoor, H., & Khan, A. (2016). The measurement of negative creativity: metrics and relationships. *Creativity Research Journal*, *28*(4), 407-416.

Kaufman, J. C. (2012). Counting the muses: Development of the Kaufman Domains of Creativity Scale (K-DOCS). *Psychology of Aesthetics, Creativity, and the Arts*, *6*(4), 298.

Kaufman, J. C., & Sternberg, R. J. (Eds.). (2006). *The international handbook of creativity*. Cambridge University Press.

Kaufman, J. C., & Sternberg, R. J. (Eds.). (2010). *The Cambridge handbook of creativity*. Cambridge University Press.

Kaufman, J. C., Cole, J. C., & Baer, J. (2009). The construct of creativity: Structural model for Self-Reported creativity ratings. *The Journal of Creative Behavior*, *43*(2), 119-134.

Krathwohl, D. R. (2002). A revision of bloom's taxonomy: an overview. *Theory into Practice*, 41(4), 212– 218

Lee, S. A., & Dow, G. T. (2011). Malevolent creativity: does personality influence malicious divergent thinking? *Creativity Research Journal*, 23(2), 73–82.

Leung, A. K. Y., & Chiu, C. Y. (2008). Interactive effects of multicultural experiences and openness to experience on creative potential. *Creativity Research Journal*, *20*(4), 376-382.

Leung, A. K. Y., Maddux, W. W., Galinsky, A. D., & Chiu, C. Y. (2008). Multicultural experience enhances creativity: The when and how. *American Psychologist*, *63*(3), 169.

Lev, B. (2004). Sharpening the intangible edge. *Harvard Business Review*, June, 109-116.

Liu, C., Shen, W. B., & Luo, J. (2014). Positive association between creativity and morality: evidence from cognitive neuroscience. *Journal of Nanjing Normal University*, 4, 104–115.

MacDonald, S., & Headlam, N. (2008). *Research Methods Handbook: Introductory guide to research methods for social research*. Centre for Local Economic Strategies.

MacKinnon, D. W. (1962). The nature and nurture of creative talent. *American psychologist*, *17*(7), 484

Mai, K. M., Ellis, A. P., & Welsh, D. T. (2015). The gray side of creativity: Exploring the role of activation in the link between creative personality and unethical behavior. *Journal of Experimental Social Psychology, 60*, 76-85.

Martin, M. (2006). Moral creativity in science and engineering. *Science and Engineering Ethics*, 12(3), 421–433.

Maxwell, B., & Narvaez, D. (2013).Moral foundations theory and moral development and education. *Journal of Moral Education*, 42(3), 271–280.

Mayer, J., & Mussweiler, T. (2011). Suspicious spirits, flexible minds: when distrust enhances creativity. *Journal of Personality and Social Psychology*, 101(6), 1262–1277.

Mazar, N., Amir, O., & Ariely, D. (2008). The dishonesty of honest people: A theory of selfconcept maintenance. *Journal of Marketing Research*, 45, 633–644.

McCoy, J. M., & Evans, G. W. (2002). The potential role of the physical environment in fostering creativity. *Creativity Research Journal*, *14*(3-4), 409-426

McCrae, R. R. (1987). Creativity, divergent thinking, and openness to experience. *Journal of personality and social psychology*, *52*(6), 1258.

McCrae, R. R. (1994). Openness to experience: Expanding the boundaries of Factor V. *European Journal of Personality*, *8*(4), 251-272.

McCrae, R. R., & John, O. P. (1992). An introduction to the five-factor model and its applications. *Journal of personality*, *60*(2), 175-215.

McLaren, R. B. (1993). The dark side of creativity. *Creativity Research Journal*, *6*(1-2), 137-144.

Metzl, E. S. (2009). The role of creative thinking in resilience after hurricane Katrina. *Psychology of Aesthetics, Creativity, and the Arts*, *3*(2), 112.

Morgan, C. G. (2016). *Morality and creativity* (Doctoral dissertation, University of Texas).

Newell, A., Shaw, J., & Simon, H. The processes of creative thinking. In H. Gruber, G. Terrell, & M. Wertheimer (Eds.), *Contemporary approaches to creative thinking*. New York: Atherton Press, 1962.

Niepel, C., Mustafić, M., Greiff, S., & Roberts, R. D. (2015). The dark side of creativity revisited: is students' creativity associated with subsequent decreases in their ethical decision making? *Thinking Skills and Creativity,* 18, 43-52.

Olt, M. R. (2002). Ethics and distance education: Strategies for minimizing academic dishonesty in online assessment. *Online journal of distance learning administration*, *5*(3), 1-7.

Peteraf, M. A. (1993). The cornerstones of competitive advantage: A resource-based view. *Strategic management journal*, *14*(3), 179-191.

Prentky, R. A. (2001). Mental illness and roots of genius. *Creativity Research Journal*, *13*(1), 95-104.

Richards, R. (2007). *Everyday creativity and new views of human nature: Psychological, social, and spiritual perspectives*. American Psychological Association.

Richards, R. (2010). Everyday creativity. *The Cambridge handbook of creativity*, 189-215.

Runco, M. A. (2009). Parsimonious creativity and its measurement. *Measuring creativity*, 393.

Runco, M. A. (2010). Creativity has no dark side. *The dark side of creativity*, 15-32.

Runco, M. A., & Jaeger, G. J. (2012). The standard definition of creativity. *Creativity Research Journal*, *24*(1), 92-96.

Sass, L. A., & Schuldberg, D. (2001). Introduction to the special issue: Creativity and the schizophrenia spectrum. *Creativity Research Journal*, *13*(1), 1-4.

Scott, E. D., & Jehn, K. A. (1999). Ranking rank behaviors: A comprehensive situation-based definition of dishonesty. *Business & society*, *38*(3), 296-325.

Sellier, A. L., & Dahl, D. W. (2015). The light side of creativity: An honesty mindset can boost creativity. *ACR North American Advances*.

Shalley, C. E., Zhou, J., & Oldham, G. R. (2004). The effects of personal and contextual characteristics on creativity: Where should we go from here?. *Journal of management*, *30*(6), 933-958.

Shalvi, S. (2012). Dishonestly increasing the likelihood of winning. *Judgment and Decision making*, 7(3), 292–303.

Shen, W., Yuan, Y., Yi, B., Liu, C., & Zhan, H. (2017). A Theoretical and Critical Examination on the Relationship between Creativity and Morality. *Current Psychology*, 1-17

Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and nonexperimental studies: new procedures and recommendations. *Psychological methods*, *7*(4), 422.

Shu, L. L., Gino, F., & Bazerman, M. H. (2011). Dishonest deed, clear conscience: When cheating leads to moral disengagement and motivated forgetting. *Personality and Social Psychology Bulletin*, 37(4), 330-349.

Silvia, P. J., Beaty, R. E., Nusbaum, E. C., Eddington, K. M., Levin-Aspenson, H., & Kwapil, T. R. (2014). Everyday creativity in daily life: An experience-sampling study of "little c" creativity. *Psychology of Aesthetics, Creativity, and the Arts*, *8*(2), 183.

Simonton, D. K. (1984). Genius, creativity and leadership. *Cambridge, MA*.

Simonton, D. K. (2003). Scientific creativity as constrained stochastic behavior: the integration of product, person, and process perspectives. *Psychological bulletin*, *129*(4), 475.

Simonton, D. K. (2010). So you want to become a creative genius? You must be crazy. *The dark side of creativity*, 218-234.

Simonton, D. K. (2013). After Einstein: Scientific genius is extinct. *Nature*, 493(7434), 602–602.

Singer, K. J. (2010). Creativity in confinement. *The dark side of creativity*, 177-203.

Spencer, L., & Ritchie, J. (2002). Qualitative data analysis for applied policy research. In *Analyzing qualitative data* (pp. 187-208). Routledge.

Stein, M. I. (1953). Creativity and culture. *The journal of psychology*, *36*(2), 311-322.

Sternberg, R. J., Kaufman, J. C., & Pretz, J. E. (2013). *The creativity conundrum: A propulsion model of kinds of creative contributions*. Psychology Press.

Streiner, D. L. (2003). Being inconsistent about consistency: When coefficient alpha does and doesn't matter. *Journal of personality assessment*, *80*(3), 217-222.

Thielmann, I., Hilbig, B. E., Zettler, I., & Moshagen, M. (2017). On measuring the sixth basic personality dimension: A comparison between HEXACO Honesty-Humility and Big Six Honesty-Propriety. *Assessment*, *24*(8), 1024-1036.

Vaillant, G. E., & Vaillant, C. O. (1990). Determinants and consequences of creativity in a cohort of gifted women. *Psychology of Women Quarterly*, 14(4), 607-616.

van Offeren, R. (2017). *The Effect of Creativity on Dishonest Behavior and the Way a Moral Prime Affects this Relationship* (Master Thesis). Erasmus University Rotterdam.

van Tilburg, W. A., Sedikides, C., & Wildschut, T. (2015). The mnemonic muse: Nostalgia fosters creativity through openness to experience. *Journal of Experimental Social Psychology*, *59*, 1-7.

Vincent, L. C., & Kouchaki, M. (2016). Creative, rare, entitled, and dishonest: How commonality of creativity in one's group decreases an individual's entitlement and dishonesty. *Academy of management journal*, *59*(4), 1451-1473.

Von Stumm, S., Chung, A., & Furnham, A. (2011). Creative ability, creative ideation and latent classes of creative achievement: What is the role of personality?. *Psychology of Aesthetics, Creativity, and the Arts*, *5*(2), 107.

Walczyk, J. J., Runco, M. A., Tripp, S. M., & Smith, C. E. (2008). The creativity of lying: Divergent thinking and ideational correlates of the resolution of social dilemmas. *Creativity Research Journal*, 20(3), 328–342.

Warren, B. (Ed.). (2008). *Using the creative arts in therapy and healthcare: a practical introduction*. Routledge.

Weisberg, R., & Suls, J. M. (1973). An information-processing model of Duncker's candle problem. *Cognitive Psychology*, *4*(2), 255-276.

Williams, K.M., Nathanson, C., & Paulhus, D.L. (2010). Identifying and profiling scholastic cheaters: Their personality, cognitive ability, and motivation. *Journal of Experimental Psychology*: Applied, 16, 293-30

Yukl, G., & Van Fleet, D. D. (1992). Theory and research on leadership in organizations. InM. D. Dunnette & LM Hough (Eds.), *Handbook of industrial and organizational psychology*, vol 3: 147-197. Palo Alto.

Yurtsever, G. (1998). Ethical beliefs and creativity. *Journal of Social Behavior & Personality*, 13(4), 747–754.

Appendix A, Demographic tables

TABLE 19 - DEMOGRAPHIC INFORMATION, STUDY 1.

Demographic variables N= 305	**Frequency of distribution (%)**	**Number of respondents**
Nationality		
Americans	21,3	65
British	12,1	37
Australian	6,6	20
Italian	6,6	20
Others	53,4	163
Western	84,3	257
Eastern	15,1	46
Age		
1= Under 18	0,3	1
2= 18 to 29	31,8	97
3= 30 to 39	26,9	82
4= 40 to 49	19,0	58
5= 50 to 59	13,4	41
6= 60 to 69	6,2	19
7= Above 70	2,0	6
Missing	0,3	1
M= 3,40 SD= 1,336		
Gender		
Male	31,2	98
Female	65,2	199
Prefer not to say	2,3	7
Missing	0,3	1
Education		
Less than High School	3,9	12
High School graduated	23,9	73
Bachelor degree	40,0	122
Master degree	22,6	69
Professional degree	7,9	24
Doctorate	1,3	4
Low education	28,2	86
High education	71,5	218
Area of creative achievements		
Culinary art	25,9	79
Theatre and Film	35,1	107
Scientific Inquiry	15,7	37
Inventions	12,1	48

Humor	36,7	112
Creative writing	43,3	132
Entrepreneurial Ventures	21,3	65
Visual arts	65,2	199
Dance	23,9	73
Music	36,1	110
Architectual design	8,2	25

TABLE 20 - DEMOGRAPHIC INFORMATION, STUDY 2.1.

Demographic variables N= 93	**Frequency of distribution (%)**	**Number of respondents**
Nationality		
Dutch	57,0	53
Ukrainans	4,3	4
French	3,2	3
German	3,2	3
Lithuanins	3,2	3
Others	41,3	40
Western	74,2	69
Eastern	25,8	24
Age		
2= 18 to 24	91,4	85
3= 25 to 34	8,6	8
M= 2,09 SD= ,282		
Gender		
Male	12,9	12
Female	87,1	81

TABLE 21 - DEMOGRAPHIC INFORMATION, STUDY 2.2.

Demographic variables N= 40	**Frequency of distribution (%)**	**Number of respondents**
Nationality		
Dutch	52,3	21
Others	47,7	19
Age		
2= 18 to 24	92,5	37
3= 25 to 34	7,5	3
M= 2,08 SD= ,267		
Gender	12,5	5
Male	87,5	35
Female		

Appendix B, Study 1

B.1 Facebook message

CALL FOR CREATIVES!

Hi! I am looking for Creative people to fill this survey as part of my Master Thesis: the main topic is the relationship between creativity and honesty!

Upon completion, I will send your customized feedback with more insights about the project and your personal scores!

To help me out click the link below and.. have fun with that :)

B.2 Online Questionnaire

Creativity and Dishonesty

Thank you for participating in this Questionnaire!
This study will take approximately 5 minutes to complete.
You will receive your customized feedback once completed.
Click the "Next" button to get started!

Q1 Gender

Male (1)

Female (2)

Prefer not to say (3)

Q2 Age

Under 18 (1) … 70 or older (7)

Q3 Education

Less than High school (1) … Doctorate (6)

Q104 Nationality

Afghans (1) … Zimbabweans (223)

Q9 List as many uses as you can think about a PEN!

_____

Q5 Now please read the following statements and check how much you agree or disagree with them.

	Strongly agree (1)	Agree (2)	Neither agree nor disagree (3)	Disagree (4)	Strongly disagree (5)
I would not use flattery to get a raise or promotion at work, even if I thought it would succeed. (1)	○	○	○	○	○
I wouldn't pretend to like someone just to get that person to do favors for me. (2)	○	○	○	○	○
If I want something from someone, I will laugh at that person's worst jokes. (3)	○	○	○	○	○
If I knew that I could never get caught, I would be willing to steal a million dollars. (4)	○	○	○	○	○
I would never accept a bribe, even if it were very large. (5)	○	○	○	○	○
I'd be tempted to use counterfeit money, if I were sure I could get away with it. (6)	○	○	○	○	○
Having a lot of money is not especially important to me. (7)	○	○	○	○	○
I would get a lot of pleasure from owning expensive luxury goods. (8)	○	○	○	○	○
I think that I am entitled to more respect than the average person is. (9)	○	○	○	○	○
I want people to know that I am an important person of high status. (10)	○	○	○	○	○

Q105 Please, mark how often have you find yourself in the following situations.

	Never (1)	Almost Never (2)	Sometimes (3)	Frequently (4)	Very frequently (5)
I have _____ exaggerated my experiences when I tell them to people. (1)	○	○	○	○	○
I _____ find myself in the position of cheating on my partner. (2)	○	○	○	○	○
If I could get into a movie without paying and be sure I was not seen I would _____ do it. (3)	○	○	○	○	○
In college, I _____ copied someone else answers on a school test. (4)	○	○	○	○	○
There have _____ been occasions when I took advantage of someone. (5)	○	○	○	○	○
Stealing from my workplace is something I _____ do. (6)	○	○	○	○	○

Q6 Please read each statement and decide how much you agree or disagree with them.

	Strongly agree (1)	Agree (2)	Neither agree nor disagree (3)	Disagree (4)	Strongly disagree (5)
I would be quite bored by a visit to an art gallery. (1)	○	○	○	○	○
If I had the opportunity, I would like to attend a classical music concert. (2)	○	○	○	○	○
I am interested in learning about the history and politics of other countries. (3)	○	○	○	○	○
I have never really enjoyed looking through an encyclopedia. (4)	○	○	○	○	○
I would enjoy creating a work of art, such as a novel, a song, or a painting. (5)	○	○	○	○	○
People have often told me that I have a good imagination. (6)	○	○	○	○	○
I don’t think of myself as the artistic or creative type. (7)	○	○	○	○	○
I think that paying attention to radical ideas is a waste of time. (8)	○	○	○	○	○
I like people who have unconventional views. (9)	○	○	○	○	○
I find it boring to discuss philosophy. (10)	○	○	○	○	○

Q11 Please, check beside the areas in which you feel you have more talent, ability, or training than the average person.

Visual Arts (painting, sculpture) (1)

Music (2)

Dance (3)

Individual Sports (tennis, golf) (4)

Team Sports (5)

Architectural Design (6)

Entrepreneurial Ventures (7)

Creative Writing (8)

Humor (9)

Inventions (10)

Scientific Inquiry (11)

Theater and Film (12)

Culinary Art (13)

Q12 Please, select whether the following sentences apply to you.

A. Visual Arts (painting, sculpture)

I have no training or recognized talent in this area. TRUE (1) FALSE (2)

Q13 I have taken lessons in this area. TRUE (1) FALSE (2)

Q14 People have commented on my talent in this area. TRUE (1) FALSE (2)

Q15 I have won a prize or prizes at a juried art show. TRUE (1) FALSE (2)

Q16 I have had a showing of my work in a gallery. TRUE (1) FALSE (2)

Q17 I have sold a piece of my work. TRUE (1) FALSE (2)

Q18 My work has been critiqued in a local publication. TRUE (1) FALSE (2)

Q19 My work has been critiqued in a national publication. TRUE (1) FALSE (2)

Q20 How many times? 1(1) … 10 (10)

Q21 Please, select whether the following sentences apply to you.
I have no training or recognized talent in this area. TRUE (1) FALSE (2)

Q22 I play one or more musical instruments proficiently. TRUE (1) FALSE (2)

Q23 I have played with a recognized orchestra or band. TRUE (1) FALSE (2)

Q24 I have composed an original piece of music. TRUE (1) FALSE (2)
Q25 My musical talent has been critiqued in a local publication. TRUE (1) FALSE (2)

Q26 My composition has been recorded. TRUE (1) FALSE (2)

Q27 Recordings of my composition have been sold publicly. TRUE (1) FALSE (2)

Q28 My compositions have been critiqued in a national publication. TRUE (1) FALSE (2)
Q29 How many times? 1(1) … 10 (10)

Q30 Please, select whether the following sentences apply to you.

C. Dance
I have no training or recognized talent in this area. TRUE (1) FALSE (2)

Q31 I have danced with a recognized dance company. TRUE (1) FALSE (2)

Q32 I have choreographed an original dance number. TRUE (1) FALSE (2)

Q33 My choreography has been performed publicly. TRUE (1) FALSE (2)

Q34 My dance abilities have been critiqued in a local publication. TRUE (1) FALSE (2)

Q35 I have choreographed dance professionally. TRUE (1) FALSE (2)

Q36 My choreography has been recognized by a local publication. TRUE (1) FALSE (2)

Q37 My choreography has been recognized by a national publication. TRUE (1) FALSE (2)

Q38 How many times? 1(1) … 10 (10)

Q39 Please, select whether the following sentences apply to you.

D. Architectural Design
I have no training or recognized talent in this area. TRUE (1) FALSE (2)

Q40 I have designed an original structure. TRUE (1) FALSE (2)

Q41 A structure designed by me has been constructed. TRUE (1) FALSE (2)

Q42 I have sold an original architectural design. TRUE (1) FALSE (2)

Q43 A structure that I have designed and sold has been built professionally. TRUE (1) FALSE (2)

Q44 My architectural design has won an award or awards. TRUE (1) FALSE (2)

Q45 My architectural design has been recognized in a local publication. TRUE (1) FALSE (2)

Q46 My architectural design has been recognized in a national publication. TRUE (1) FALSE (2)

Q47 How many times? 1 (1) ... 10 (10)

Q48 Please, select whether the following sentences apply to you.

Creative Writing

I have no training or recognized talent in this area. TRUE (1) FALSE (2)

Q49 I have written an original short work (poem or short story). TRUE (1) FALSE (2)

Q50 My work has won an award or prize. TRUE (1) FALSE (2)

Q51 I have written an original long work (epic, novel, or play). TRUE (1) FALSE (2)

Q52 I have sold my work to a publisher. TRUE (1) FALSE (2)

Q53 My work has been printed and sold publicly. TRUE (1) FALSE (2)

Q54 My work has been reviewed in local publications. TRUE (1) FALSE (2)

Q55 My work has been reviewed in national publications. TRUE (1) FALSE (2)

Q56 How many times? 1 (1) ... 10 (10)

Q57 Please, select whether the following sentences apply to you.

F. Humor

I do not have recognized talent in this area. TRUE (1) FALSE (2)

Q58 People have often commented on my original sense of humor. TRUE (1) FALSE (2)

Q59 I have created jokes that are now regularly repeated by others. TRUE (1) FALSE (2)

Q60 I have written jokes for other people. TRUE (1) FALSE (2)

Q61 I have written a joke or cartoon that has been published. TRUE (1) FALSE (2)

Q62 I have worked as a professional comedian. TRUE (1) FALSE (2)

Q63 I have worked as a professional comedy writer. TRUE (1) FALSE (2)

Q64 My humor has been recognized in a national publication. TRUE (1) FALSE (2)

Q65 Please, select whether the following sentences apply to you.

G. Inventions

I do not have recognized talent in this area. TRUE (1) FALSE (2)

Q66 I regularly find novel uses for household objects. TRUE (1) FALSE (2)

Q67 I have sketched out an invention and worked on its design flaws. TRUE (1) FALSE (2)

Q68 I have created original software for a computer. TRUE (1) FALSE (2)

Q69 I have built a prototype of one of my designed inventions. TRUE (1) FALSE (2)

Q70 I have sold one of my inventions to people I know. TRUE (1) FALSE (2)

Q71 I have received a patent for one of my inventions. TRUE (1) FALSE (2)

Q72 How many times? 1 (1) ... 10 (21)

Q73 I have sold one of my inventions to a manufacturing firm. TRUE (1) FALSE (2)

Q74 How many times? 1 (1) ... 10 (10)

Q75 Please, select whether the following sentences apply to you.

H. Scientific Discovery
I do not have training or recognized ability in this field. TRUE (1) FALSE (2)

Q76 I often think about ways that scientific problems could be solved. TRUE (1) FALSE (2)

Q77 I have won a prize at a science fair or other local competition. TRUE (1) FALSE (2)

Q78 I have received a scholarship based on my work in science or medicine. TRUE (1) FALSE (2)

Q79 I have been author or coauthor of a study published in a scientific journal. TRUE (1) FALSE (2)

Q80 I have won a national prize in the field of science or medicine. TRUE (1) FALSE (2)

Q81 How many times? 1 (1) ... 10 (10)

Q82 I have received a grant to pursue my work in science or medicine. TRUE (1) FALSE (2)

Q83 How many times? 1 (1) ... 10 (10)

Q84 My work has been cited by other scientists in national publications. TRUE (1) FALSE (2)

Q85 Please, select whether the following sentences apply to you.

I. Theatre and Film
I do not have training or recognized ability in this field. TRUE (1) FALSE (2)

Q86 I have performed in theater or film. TRUE (1) FALSE (2)

Q87 My acting abilities have been recognized in a local publication. TRUE (1) FALSE (2)

Q88 I have directed or produced a theater or film production. TRUE (1) FALSE (2)

Q89 I have won an award or prize for acting in theater or film. TRUE (1) FALSE (2)

Q90 I have been paid to act in theater or film. TRUE (1) FALSE (2)

Q91 I have been paid to direct a theater or film production. TRUE (1) FALSE (2)

Q92 My theatrical work has been recognized in a national publication. TRUE (1) FALSE (2)

Q93 How many times? 1 (1) ... 10 (10)

Q94 Please, select whether the following sentences apply to you.

J. Culinary Art
I do not have training or experience in this field. TRUE (1) FALSE (2)

Q95 I often experiment with recipes. TRUE (1) FALSE (2)

Q96 My recipes have been published in a local cookbook. TRUE (1) FALSE (2)

Q97 My recipes have been used in restaurants or other public venues. TRUE (1) FALSE (2)

Q98 I have been asked to prepare food for celebrities or dignitaries. TRUE (1) FALSE (2)

Q99 My recipes have won a prize or award. TRUE (1) FALSE (2)

Q100 I have received a degree in culinary arts. TRUE (1) FALSE (2)

Q101 My recipes have been published nationally. TRUE (1) FALSE (2)

Q102 How many times? 1 (1) ... 10 (10)

Q108 We are almost done! Just two quick questions here....

What is your profession? _____

Q109 What is your
education?_____

Q103 WELL DONE!

In order to thank some of you for the time,
CHECK YES If you are in your Thirties... You could be among the Winners of an Amazon Gift Card! Yes (1) No (2)

Q106 WELL DONE!
In order to thank some of you for the time,
CHECK YES If you are in your Forties... You could be among the Winners of an Amazon Gift Card! Yes (1) No (2)

Q104 Please, leave your email address to discover how much creative and honest you are!

The email address will be treated confidentially and will be utilized ONCE only to deliver you a customized feedback based on your personal answers to the questionnaire.

THANK YOU!

_____

B.3 Email providing feedbacks

HEY!

Thank you very much for completing of the survey,
For being officially part of my Master Thesis Empirical Research!

With this message, I would like to give you a bigger insight on the focus of my analysis.

Creativity is commonly appreciated for its bright side and positive outcomes, but as there are always two sides of the same coin, many studies are analysing the so-called "Dark side of Creativity". To this end, based on the literature on the correlations between creativity and dishonesty (Gino and Ariely, 2012, Gino and Wiltermuth, 2014, Beaussart et al., 2013) I am measuring whether creativity increases a dishonest behaviour.

During the survey, your creativity has been measured in three ways: your creative personality with the "Openness to experiences" measure from the Hexaco Personality Inventory, your divergent thinking creative skill by listing the uses of a common object (the pen), and your professional creative achievements, by the Creative Achievement Questionnaire.

Moreover, your honest personality has been tested using from Hexaco the "Honesty" measure, while dishonesty was analysed with a cheating scale developed by matching two existing ones, and by giving you the chance to cheat about your age to gain a reward (the Amazon gift card).

Here your final scores:

CREATIVE PERSONALITY: X / 50

CREATIVE SKILLS: X

CREATIVE ACHIEVEMENTS: X

➔ The higher the scores, the more creative you are

HONESTY: X / 50

CHEATING SCALE: X / 30

CHEATING TASK: X / 1

If you would like to know more about this project and to receive a copy of my research thesis in July 2018, please get back to me.

PLEASE SHARE THIS LINK WITH YOUR FRIENDS AND HELP MY RESERACH:
https://erasmusuniversity.eu.qualtrics.com/jfe/form/SV_bqq7Y0GZStjGNaR

THANK YOU!
Have a wonderful day,
Elisabetta Spaliviero
Erasmus University, Rotterdam - Netherlands
MA – Cultural Economics and Entrepreneurship

Appendix C, Study 2.1 and 2.2, Online questionnaire

THANK YOU for participating in this Creativity Questionnaire!
This study will take approximately 8 minutes to complete,
You will receive a feedback with your scores on Creativity at the end of it.
Click the "Next" button and let's get started!

CREATE YOUR PERSONAL CODE FOLLOWING THE INSTRUCTIONS:

- First two letters of your father's first name
- First two letters of your mother's first name
- Last two letter of your mother's surname

Q1 Gender

Male (1)

Female (2)

Prefer not to say (3)

Q2 Age

Under 18 (1) … 70 or older (7)

Q3 Nationality

Afghans (1) … Zimbabweans (223)

Q4 List as many uses as you can think about a PEN!

_____

Q5 Now please read the following statements and check how much you agree or disagree with them.

	Strongly agree (1)	Agree (2)	Neither agree nor disagree (3)	Disagree (4)	Strongly disagree (5)
I would not use flattery to get a raise or promotion at work, even if I thought it would succeed. (1)	○	○	○	○	○
I wouldn’t pretend to like someone just to get that person to do favors for me. (2)	○	○	○	○	○
If I want something from someone, I will laugh at that person's worst jokes. (3)	○	○	○	○	○
If I knew that I could never get caught, I would be willing to steal a million dollars. (4)	○	○	○	○	○
I would never accept a bribe, even if it were very large. (5)	○	○	○	○	○
I’d be tempted to use counterfeit money, if I were sure I could get away with it. (6)	○	○	○	○	○
Having a lot of money is not especially important to me. (7)	○	○	○	○	○
I would get a lot of pleasure from owning expensive luxury goods. (8)	○	○	○	○	○
I think that I am entitled to more respect than the average person is. (9)	○	○	○	○	○
I want people to know that I am an important person of high status. (10)	○	○	○	○	○

Q6 Please, mark how often do you find yourself in the following situations.

	Never (1)	Almost Never (2)	Sometimes (3)	Frequently (4)	Very frequently (5)
I have _____ exaggerated my experiences when I tell them to people. (1)	○	○	○	○	○
I _____ find myself in the position of cheating on my partner. (2)	○	○	○	○	○
If I could get into a movie without paying and be sure I was not seen I would _____ do it. (3)	○	○	○	○	○
In college, I _____ copied someone else answers on a school test. (4)	○	○	○	○	○
There have _____ been occasions when I took advantage of someone. (5)	○	○	○	○	○
Stealing from my workplace is something I _____ do. (6)	○	○	○	○	○

Q7 Now please read the following statements and check how much you agree or disagree with them.

	Strongly agree (1)	Agree (2)	Neither agree nor disagree (3)	Disagree (4)	Strongly disagree (5)
I would be quite bored by a visit to an art gallery. (1)	○	○	○	○	○
If I had the opportunity, I would like to attend a classical music concert. (2)	○	○	○	○	○
I am interested in learning about the history and politics of other countries. (3)	○	○	○	○	○
I have never really enjoyed looking through an encyclopedia. (4)	○	○	○	○	○
I would enjoy creating a work of art, such as a novel, a song, or a painting. (5)	○	○	○	○	○
People have often told me that I have a good imagination. (6)	○	○	○	○	○
I don’t think of myself as the artistic or creative type. (7)	○	○	○	○	○
I think that paying attention to radical ideas is a waste of time. (8)	○	○	○	○	○
I like people who have unconventional views. (9)	○	○	○	○	○
I find it boring to discuss philosophy. (10)	○	○	○	○	○

Q8

Compared to people of approximately your age and life experience, how creative would you rate yourself for each of the following acts? For acts that you have not specifically done, estimate your creative potential based on your performance on similar tasks.

	Much Less Creative (1)	Less Creative (2)	Neither More nor Less Creative (3)	More Creative (4)	Much More Creative (5)
Finding something fun to do when I have no money. (1)	○	○	○	○	○
Helping other people cope with a difficult situation. (2)	○	○	○	○	○
Teaching someone how to do something. (3)	○	○	○	○	○
Maintaining a good balance between my work and my personal life. (4)	○	○	○	○	○
Understanding how to make myself happy. (5)	○	○	○	○	○
Being able to work through my personal problems in a healthy way. (6)	○	○	○	○	○
Thinking of new ways to help people. (7)	○	○	○	○	○
Choosing the best solution to a problem. (8)	○	○	○	○	○
Planning a trip or event with friends that meets everyone’s needs. (9)	○	○	○	○	○
Mediating a dispute or argument between two friends. (10)	○	○	○	○	○
Getting people to feel relaxed and at ease. (11)	○	○	○	○	○

THANK YOU VERY MUCH!

Your responses have been collected.
Below you can find how you score on creativity.
The first one is your 'Openness to Experiences' and
the second one your 'Everyday Creativity'.
Save them!

Have a wonderful day!

Appendix D, Study 2.2, Booklet

In class exercises

COPY THE CODE YOU CREATED

DURING THE ONLINE QUESTIONNAIRE:

- First two letters of your father's name
- First two letters of your mother's first name
- Last two letters of your mother's first name

REMEMBER:

- Your **code** should be in every page, in the upper-left corner.
- **Turn the sheet** only when you are asked to do so.
- Use only a **PEN.**

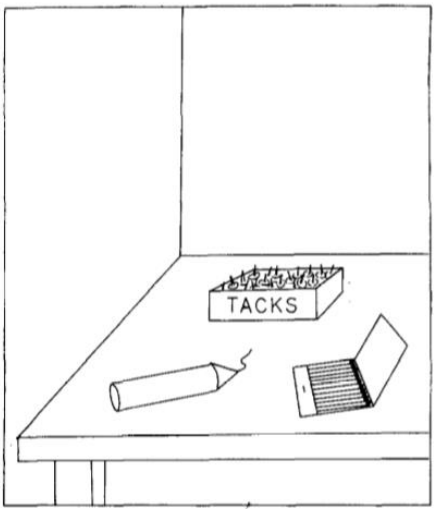
Remember: listen and read to the instruction,

Have fun and BE Creative!

Thank you ☺

Duncker's Candle Problem

Suppose you are presented with a table top containing a box full of tacks, a candle, and a matchbook. Your challenge is to get the candle up on the wall so that it would burn properly. You can solve the problem in as many different ways as you can.



Now, you have the chance to be as creative as possible in Drawing an alien!

Time given: Three minutes.

LAST EXERCISE!

Now, power paint slides will be projected on the screen, each for a few seconds.

Every slide presents 20 items divided in to the left and right side of the screen. The items will never be divided exactly in half. Thus, there will always be more items in one side than the other.

Here below you find a numeric list. Every number corresponds to the number of slide projected. The number will be screened also in the downright corner of every slide.

You are asked to CIRCLE the letter L if you believe that the LEFT side of the slide has more items inside, and R if you believe the RIGHT side does.

Thank you! ☺

1. L R
2. L R
3. L R
4. L R
5. L R
6. L R
7. L R
8. L R
9. L R
10. L R
11. L R
12. L R
13. L R
14. L R
15. L R
16. L R
17. L R
18. L R
19. L R
20. L R

GREAT! ☺

One last thing: count how many times you circled L or R in the previous exercise.

Now cross here below the letter that you circled MORE times.

Be aware that if you cross the R, you will be excluded from writing a 250 words essay on the tests we just completed, using two academic articles from the references here below. If you now choose L, you will be writing the essay and include it in the portfolio.

L	R

References:

Ashton, M. C., & Lee, K. (2009). The HEXACO-60: A short measure of the major dimensions of personality. *Journal of Personality Assessment, 91*, 340-345

Kaufman, J. C., Cole, J. C., & Baer, J. (2009). The construct of creativity: Structural model for Self-Reported creativity ratings. *The Journal of Creative Behavior*, *43*(2), 119-134.

Weisberg, R., & Suls, J. M. (1973). An information-processing model of Duncker's candle problem. *Cognitive Psychology*, *4*(2), 255-276.

Many thanks for being part of my Master Thesis Empirical Research ☺

PLEASE CHECK THAT IN EVERY SHEET THERE IS
YOUR CODE ON THE UPPER LEFT CORNER.
TURN THE SHEETS UPSIDE DOWN AND WAIT
SEATED UNTIL COLLECTED.

D.1 Visual task: ambiguous and simple slides projected.

FIGURE 5 - EXAMPLE OF UNAMBIGUOUS SLIDE, STUDY 2.2.

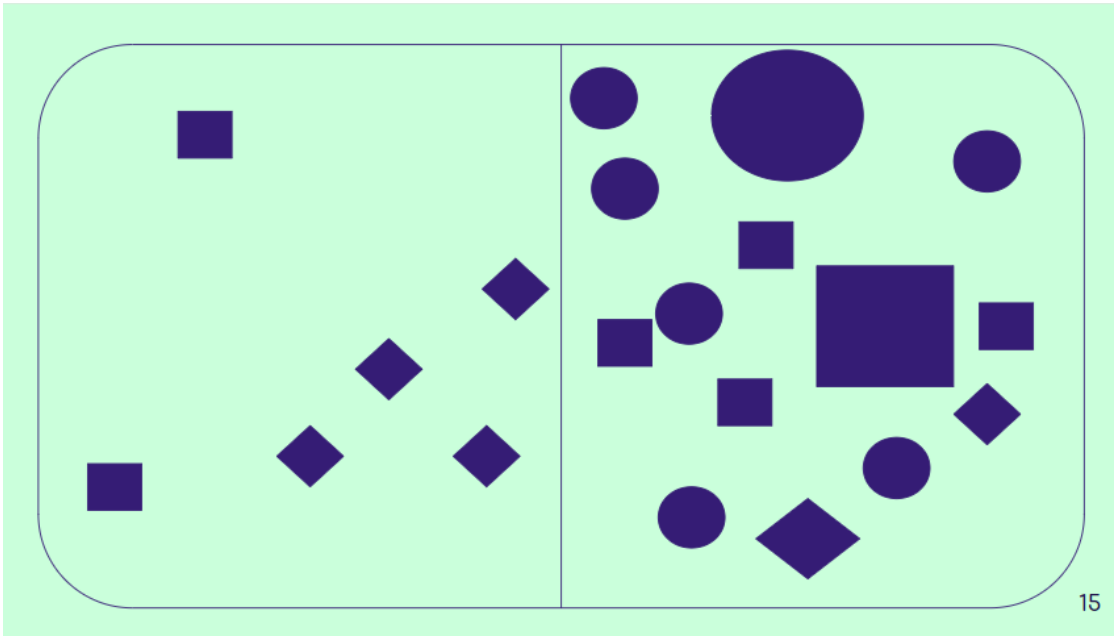
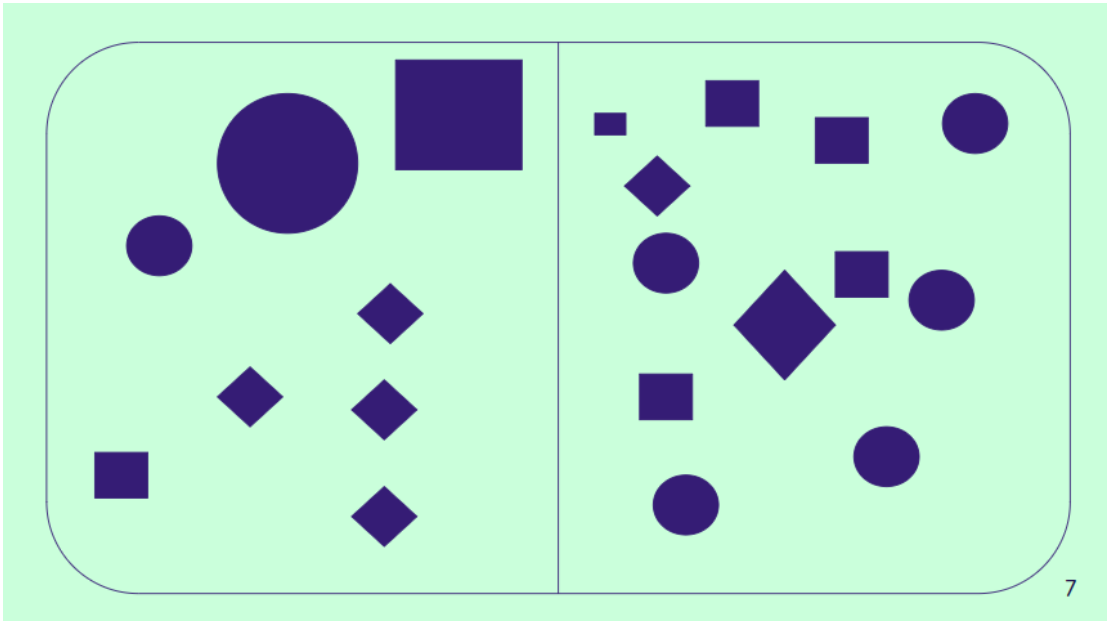


FIGURE 6 – EXAMPLE OF AMBIGUOUS SLIDE, STUDY 2.2.



D.2 The most and less creative aliens.

FIGURE 4 - MOST CREATIVE ALIEN, SCORE= 35,6.

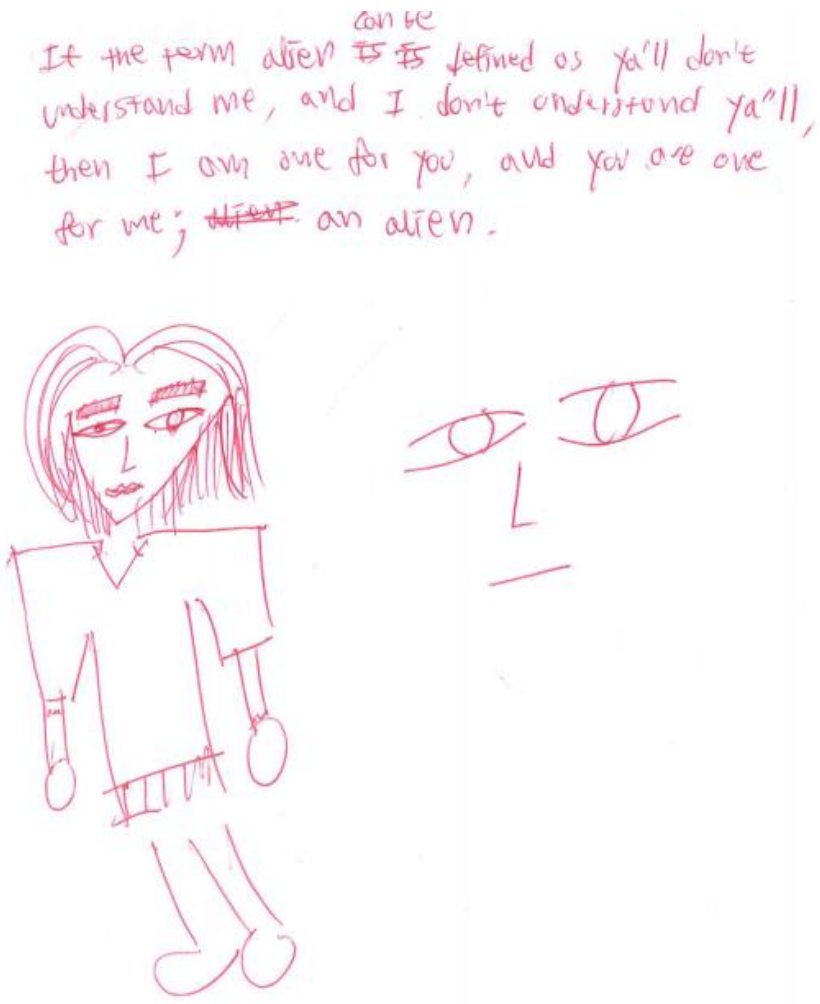


FIGURE 5 - LESS CREATIVE ALIEN, SCORE= 8.