

CREATIVITY AND NONATTACHMENT: A RELATIONSHIP MODERATED BY PRIDE

MARTA CODATO
UNIVERSITY OF PADOVA

RODICA DAMIAN
UNIVERSITY OF CALIFORNIA, DAVIS

INES TESTONI
LUCIA RONCONI
UNIVERSITY OF PADOVA

Previous research has shown that nonattachment, or the ability to release from mental fixations, has many positive outcomes (Sahdra, Shaver, & Brown, 2010). Because creativity is one of the most important pro-social behaviors, we investigated the link between nonattachment and creativity. In addition, we investigated the moderating role of mood. We found that nonattachment was indeed positively related to creativity, but only when people were induced to feel authentic pride, that is, pride which results from attributing success to hard work. The link between nonattachment and creativity disappeared when people were merely induced to feel a positive or neutral mood.

Key words: Attachment theory; Nonattachment; Creative cognition; Creative thinking; Hubristic pride.

Correspondence concerning this article should be addressed to Marta Codato, Dipartimento FISPPA – Sezione di Psicologia Applicata, Università di Padova, Via Venezia 8, 35131 PADOVA (PD), Italy. Email: marta.codato@unipd.it

INTRODUCTION

The present study concerns nonattachment, which refers to a capacity of mental flexibility, due to the insight of impermanence of mental representations; it implies the capability of being autonomous from contingencies even in terms of happiness. We will investigate the relationship between nonattachment and creativity, and the moderating role of authentic pride. This connection will be investigated by manipulating the mood of participants before administering the questionnaire. Participants were randomly assigned to two conditions: authentic pride, in which they were asked to remember a past success resulting from a strong effort, and happy mood, in which they were asked to remember a happy event due to external causes. We hypothesize that people who have a higher level of nonattachment will be more able to act in a creative way if their authentic pride is elicited. Creativity is vital for the progress of society and culture. A thought or behavior is considered creative if it is both original and useful (Hennessey & Amabile, 2010). To produce something creative, one must distance oneself from previous thoughts and behaviors. Thus, we propose that nonattachment, which is linked to the capability of being autonomous from the contingency and, at the same time, committed to the present situation, should be linked to

creativity in some conditions. A nonattached person for example faces up to difficulties without trying to avoid them and, at the same time, he/she enjoys possessions without being scared of their damage (Sahdra, Shaver, & Brown, 2010). Similarly, creativity implies the capability of being independent from past ways of solving a problem and coming up with something new, but also the integration of past solutions and the constraints of reality, which insure that the creative solution will not only be novel, but also useful (Mednick, 1962). Nonattachment and creativity involve the presence of a strong internal driving force that can be externally activated. Thus, non-attachment can be triggered either through meditation or by means of psychotherapeutic sessions (Sadhra et al., 2010); moreover, creativity can be stimulated by instructions (O'Hara & Sternberg, 2001) and through external cues to intrinsic motivation or the motivation to do something for pure enjoyment and for its own sake (Amabile, 1996). The results arising from the present research will show how the activation of the emotion of authentic adaptive pride (Tracy & Robins, 2007) can stimulate the emersion of an intrinsic motivation to achievement that, among participants who have learned to be nonattached, generates creative performances.

Creativity, conceived as the ability to produce work that is original, high in quality and appropriate (Sternberg, Lubart, Kaufman, & Pretz, 2005) implies the capacity to "risk nonconformity" (Mednick, 1962) and a sort of freedom from the reactions generated by one's product. That independence from the context is theoretically related to the Eastern concept of nonattachment. Through the present research we wanted to explore the relationship between the construct of creativity and the Buddhist concept of nonattachment through the moderation of authentic pride.

THE CONCEPT OF CREATIVITY

The concept of creativity refers to the generation of useful ideas, insights, and problem solutions. Wallas (1926) elaborated a five-phase model to represent creative processes, involving preparation, incubation, intimation, illumination, and verification. He considered creativity as a result of the evolutionary process, which facilitates human capability to survive in spite of environmental changes. Creativity was intensively studied during the 60s both by Mednick (1962), who conceived "creative thinking" as the association of different elements into new combinations, and by Guilford (1967) who defined creativity as a divergent way of thinking, which involves the generation of multiple answers to a problem. He distinguished creativity from a type of "convergent" thinking that aims at a single, right solution to a set problem. Recently, Halie and Sun (2010) presented a model which connects different existing theories of incubation and insight. That conceptual framework is useful to understand the process of creative problem solving by considering the relation between implicit and explicit knowledge. Creativity, that implies "the defeat of habit by originality" (Koestler, 1964, p. 96), the disentanglement from strong associative thinking habits (Glover, Ronning, & Reynolds, 1989) is not only a reaction to but also a proactive contribution to change and evolution (Runco, 2004). Similarly to meditation, creativity is the capacity to transcend informational boundaries (Horan, 2009). In this research, we do not refer to Big-C creativity that regards only people whose contributions are eminent, rather to the universally distributed creative potential (little-c or everyday creativity) (see Beghetto & Kauf-

man, 2007), which refers to novel solutions to everyday problems and to creative cognitions, reflected in flexible and broad associations of ideas.

CREATIVITY AND MOOD

Among the variables that may affect creativity, mood is one of the most studied. The association between the two constructs has been explored in several contexts, such as school, college, work places (see Ashby, Isen, & Turken, 1999). Many different studies have shown how positive affect influences cognitive processing (see Isen, 1993, 1999), leading to a higher level of cognitive flexibility and facilitating creativity. In a study conducted by Vosburg (1998), it was shown that the manipulation of positive affect stimulated “fluency,” namely the production of many different ideas (see De Dreu, Baas, & Nijstad, 2008). Ashby et al. (1999) showed that positive feelings, by increasing the dopamine level in frontal cortical areas, make people more creative in problem solving. On the other hand, Clapham (2001) showed that there is not an incontrovertible association between positive feelings and divergent thinking, and in 2002 George and Zhou showed how creativity in work places is predicted by negative mood. Subsequently, the same authors (George & Zhou, 2007) demonstrated that both the activation of positive and the activation of negative mood could stimulate the increase of the level of creativity if the work context was supportive. Different studies confirm that positive and negative feelings have a different role in stimulating creativity (see Grawitch, Munz, & Kramer, 2003; Hirt, Levine, McDonald, Melton, & Martin, 1997). For example, the “mood as input model” elaborated by Martin, Ward, Achée, and Wyer (1993) demonstrated how on the one hand positive mood stimulates an expansive playful thinking, on the other hand negative mood elicits an analytic thinking useful for changing problematic situations. De Dreu and colleagues understood that cognitive activation is the necessary precondition to express creative behaviors. The conclusions rising from their research explained how a negative cognitive activation promoted fluency (perseverance), namely a high production of nonredundant ideas; while a positive cognitive activation promoted flexibility, namely the elaboration of ideas insertable in different cognitive categories and perspectives, and the possession of inclusive and broad categories. Friedman, Förster, and Denzler (2007) showed that positive feelings are associated with efforts on both amusing and serious tasks, while negative mood is associated only with efforts on serious tasks. There are also several studies exploring the relation between creativity and affective disorders. As a matter of fact, one of the last investigations about the above cited topic (Kyaga et al., 2011), involving 300,000 people with severe mental disorders, found a strong positive association between doing a creative profession and having a bipolar disorder.

CREATIVITY AND ATTACHMENT

Attachment theory (Bowlby, 1969, 1973) is a conceptualization of the behavioral system implied by the emotional bonds between children and caregivers, beginning early in infancy. The main idea in the attachment theory is that the quality of the relationship between children and their parents affects children’s mental representations of the self and significant others (called

“internal working models”; Bowlby, 1969). Different attachment patterns have been identified: the secure attachment, the insecure-anxious, and the insecure-avoidant (Ainsworth, Blehar, Waters, & Wall, 1978). It has been found that these models continue during adulthood, even if they can be influenced by people’s lives, losses, and by experiences such as psychotherapy. Securely attached adults tend to have positive views of themselves, their partners and their relationships. They feel comfortable with intimacy and independence, balancing the two. Anxious adults seek high levels of intimacy, approval and responsiveness from partners, becoming overly dependent. They tend to be less trusting, have less positive views about themselves and their partners, and may exhibit high levels of emotional expressiveness, worry, and impulsiveness in their relationships. Avoidant adults desire a high level of independence, often appearing to avoid attachment altogether. They view themselves as self-sufficient, invulnerable to attachment feelings and not needing close relationships. They tend to suppress their feelings, dealing with rejection by distancing themselves from partners of whom they often have a poor opinion. Anxious attached individuals tend to be hypervigilant to sources of distress and hypersensitive to negative experiences (Mikulincer & Shaver, 2007). On the contrary, avoidant attached subjects are likely to diminish threats, undermine their importance, and detach them from their own stressful thoughts and feelings. These individuals seem to be less sensitive to stress than anxious individuals (e.g., Hammen et al., 1995). Some studies showed that people who score higher on measures of security also score higher on measures of novelty seeking (e.g., Carnelley & Ruscher, 2000), trait curiosity (Mikulincer, 1997), and exploratory interest (e.g., Green & Campbell, 2000). More secure adults are also characterized by lower levels of cognitive closure, dogmatic thinking, and intolerance of ambiguity (e.g., Green-Hennessy & Reis, 1998; Mikulincer, 1997). Mikulincer and Sheffi (2000) found that attachment style moderates the effects of positive inductions on cognitive processes. In particular, about categorization they showed that secure people reacted to positive stimuli with wider categorization; for example, they rated poor exemplars of a semantic category as better exemplars of this category than did other people, and sorted items into larger and more inclusive categories. Avoidant people did not show any kind of reaction, and anxious people showed narrower categorization (e.g., they accepted fewer poor exemplars of a semantic category, and rated these exemplars as less similar to category members than did the others). Mikulincer and Sheffi also found that secure people, after a positive affect induction, became more creative in solving problems, avoidant people did not show any effect, and anxious people decreased their level of creativity. Furthermore Mikulincer, Shaver, and Rom (2011) found how a sense of attachment security allows a redistribution of attention and other resources, including exploration, learning, and creative behavior.

CREATIVITY AND NONATTACHMENT

Recently Sahdra et al. (2010) studied the Buddhist construct of “nonattachment,” characterized by a profound awareness about the impermanence and interdependence of all the phenomena. The concept of nonattachment implies an absence of fixation on ideas, images or objects, mental independency and genuine interest in other people. Contrarily to what we could expect, nonattachment is not an apathetic detachment from the world; it involves instead a responsive and caring involvement in the present situation (Sahdra et al., 2010). Nonattachment implies

an absolute capability of happiness, in spite of external conditions, as it means being able to let go of psychological strategies that support afflictive emotions. Sahdra et al. (2010) found some similarities between the Buddhist concept of nonattachment and the Western construct of secure attachment: both imply autonomy and sincere concern for others (see Mikulincer & Shaver, 2007), but secure attachment is based on mental representations related to security, whereas nonattachment is based on insight into the impermanent nature of mental representations. The constructs of nonattachment and creativity have also some similarities as both imply mental flexibility (release from mental fixations), capacity to transcend informational limits (see Horan, 2009), radical self-reliance, and they seem both related to the generosity principle (Hedeen & Kelly, 2009), that involves gifting, self-expression, and disentanglement from the external constrictions.

CREATIVITY AND MOTIVATION

According to Zhang and Bartol (2010) and Amabile (1996), creative performances are driven by intrinsic motivation (see Deci, 1975) which refers to a driving force emerging from the individual that activates him/her to do something that is interesting and satisfying in itself, as opposed to doing something (to answer to) in response to a force that comes from outside of the individual.

Deci and Ryan (2002) found that extrinsic motivation (motivation which results from anticipated rewards or positive evaluations by others) decreased creative performance.

Williams and DeSteno (2008) showed how motivation, considered as a unique positive emotion capable of driving efforts aimed at developing status and difficult skills, is associated with pride. Damian and Robins (2012) have also found that intrinsic motivation is positively related to authentic pride. Research on pride (e.g., Tracy & Robins, 2007) has distinguished between two types of pride: authentic and hubristic. Authentic pride reflects pride in concrete personal achievements ("I am proud of what I did"), and typically results from attributions to internal, unstable, and specific causes ("I won because I practiced before the game"). Authentic pride is the more socially desirable, adaptive facet of pride, associated with high self-esteem (both explicit and implicit), successful social relationships, civic duty behaviors such as volunteering, and creativity (Damian & Robins, 2012; Tracy, Cheng, Robins, & Trzesniewski, 2009; Tracy & Robins, 2007). Hubristic pride, on the other hand, derives from general beliefs about abilities and strengths, as reflected in statements such as "I do everything well" (Tracy & Robins, 2007).

HYPOTHESES

Is it possible to promote creativity by making people become more nonattached and aware, through positive pride, of the connection between efforts and positive results?

By following previous research about the connection between: secure priming and creativity (Mikulincer et al., 2011), authentic pride and motivation (Williams & DeSteno, 2008), authentic pride and creativity (Damian & Robins, 2012), and because of the similarities between secure attachment and nonattachment and between creativity and nonattachment, we hypothesized that higher levels of nonattachment will be related to higher creativity, this link being moderated by momentary pride. We also hypothesized that nonattachment will not be associated with

creativity in the other mood condition “happy condition created by external causes,” because in this condition, it does not stimulate the intrinsic motivation to act creatively.

METHODS

Participants

Participants were 118 psychology undergraduates (78 women, 40 men) at the University of California, Davis. Mean age was 19.08 years with a standard deviation of 2.12.

Measures and Manipulation

Three weeks before coming to the lab, participants completed a personality measure as part of a prescreening online survey for which they received course credits. The measure was the Nonattachment Scale (NAS; Sahdra et al., 2010) which is composed of 30 items (three of which are reverse-scored: 4, 13, 24). This scale assesses the subjective level of nonattachment. Sample items are: “I can accept the flow of events in my life without hanging onto them or pushing them away”; “I can enjoy pleasant experiences without needing them to last forever”; “If things aren’t turning out the way I want, I get upset” (reverse scored); “I find I can be happy almost regardless of what is going on in my life.” For each item, respondents had to select a number from 1 to 6 rating the extent to which they agreed with it.

Three weeks later participants, who had been involved in the prescreening, came to the laboratory, and were seated in individual cubicles equipped with a chair, a desk, and a computer with keyboard. They were randomly assigned to one of two conditions, and were asked to write down a short essay: Participants who were assigned to the authentic pride condition ($n = 43$) had to remember and write about past achievement reached through strong efforts; this condition was supposed to stimulate a feeling of authentic pride. Participants in the happy condition created by external causes ($n = 33$) had to write about a past situation that made them feel happy because of something that happened to them, or something that someone else did for them. This condition was supposed to produce a generic positive feeling.

Participants then completed a version of the Unusual Uses Task (Guilford, 1967), which is a largely used and well-validated measure of creativity (Baas, De Dreu, & Nijstad, 2008; Carson, Peterson, & Higgins, 2005). Participants had two minutes to list as many creative uses as they could think of for a brick. Using Guilford’s (1967) original coding scheme, two raters measured *verbal fluency* by counting the total number of valid ideas generated by each participant (nonuseful ideas such as “eat a brick” were considered invalid, and were not counted). *Cognitive flexibility* was measured by counting the total number of different categories to which participants’ ideas belonged (e.g., “build a house, bridge, or wall,” would lead to a score of one as they are all in the “building” category, whereas “weapon, stepping-stone, and drawing tool” would lead to a score of three). *Elaboration* was assessed by counting the total number of valid ideas per content category, and *originality* by evaluating the novelty of the ideas mentioned by each participant. The raters provided four codes for each participant. Specifically they had to count the total number of valid ideas and the total number of distinct categories; then they had to attribute

elaboration scores to each use provided by participants, in relation to the amount of details given. Finally, they rated from 1 to 10 the originality of valid ideas. Inter-rater reliability was high ($r = .96$ for fluency; $r = .87$ for flexibility; $r = .59$ for originality; $r = .78$ for elaboration); so we used the mean of the two raters in all analyses.

RESULTS

Reliability of the NAS scale ($\alpha = .91$) was high. For the two conditions, there were not significant differences with respect to the variables considered: nonattachment and creativity (see Table 1).

TABLE 1
Descriptive statistics

Variables	Condition			
	Authentic pride		Happy condition created by external causes	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Fluency	6.05	2.83	5.77	2.14
Flexibility	4.98	1.97	4.71	1.87
Originality	2.01	1.81	2.21	1.64
Elaboration	4.15	2.22	4.54	2.64
NAS	3.85	0.52	3.85	0.70

Note. For each variable, the means of the two conditions are not different, $t_s < 1$. NAS = Nonattachment Scale.

We tested the hypothesis of a positive association between nonattachment and creativity only among participants who were asked to remember a past situation in which they had reached a success through a strong effort. We found that in this condition — the “authentic pride condition” — nonattachment was correlated with fluency ($r = .27$, $p_{1\text{-tail}} < .05$). Consistently with our hypothesis, there was no association between nonattachment and creativity in the “happy condition created by external causes” (see Table 2).

TABLE 2
Correlations between NAS and Creativity

Condition	Variables	Fluency	Flexibility	Originality	Elaboration
Authentic pride ($n = 43$)	NAS	.27*	.14	.24	.03
Happy condition created by external causes ($n = 33$)	NAS	-.10	-.01	-.10	.19

These results were confirmed by a multivariate analysis of variance in which the four dimensions of creativity were the dependent variables, and the experimental condition (authentic pride vs. happy) and nonattachment (divided into above and below the mean) were the independent variables. At a multivariate level, only the interaction between conditions and nonattachment was significant, $F(4, 69) = 2.36, p = .062$ (marginal effect). The univariate tests showed a significant interaction for fluency, $F(1, 72) = 4.73, p < .04$, and originality, $F(1, 72) = 4.48, p < .04$. Results showed a higher level of fluency for the authentic pride condition than for the happy condition for external causes in highly nonattached participants (Figure 1).

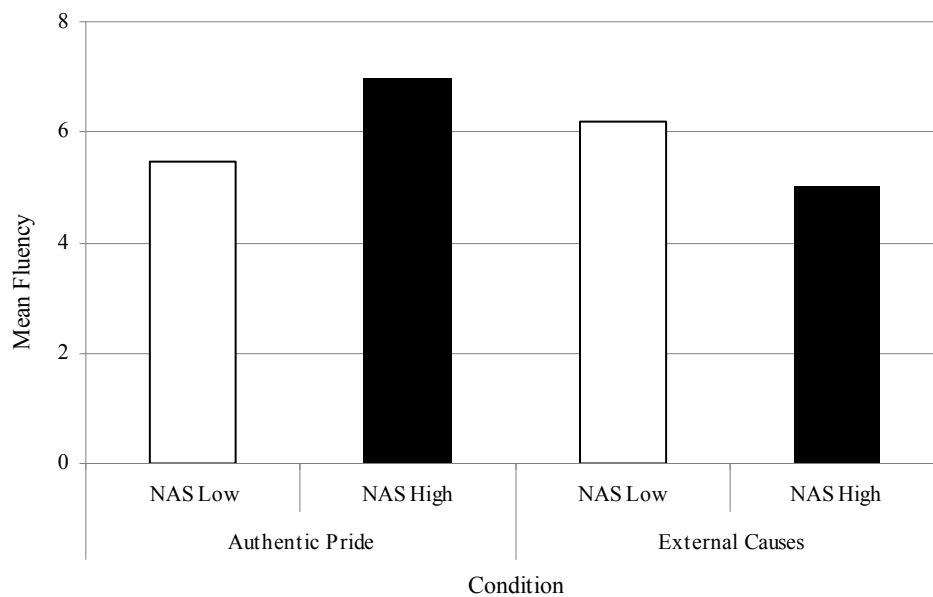


FIGURE 1
Mean Fluency by NAS and Condition.

Results also showed, on one hand, a higher level of originality in the authentic pride condition than in the happiness for external causes condition among highly nonattached participants. On the other hand, they showed a lower level of originality in the authentic pride condition than in the happiness for external causes condition among participants who are less nonattached (Figure 2).

These findings demonstrate that creativity is not simply a function of the level of nonattachment; in fact, participants scoring higher in nonattachment did not show a higher level of creativity in the “happy condition created by external causes.” Therefore, we can infer that the relationship between nonattachment and creativity is conditioned by the motivating role of pride; the latter, deriving from past effort and success, probably stimulates the intrinsic motivation (Williams & DeSteno, 2009) to engage in the creativity test (see Hennessey & Amabile, 2010).

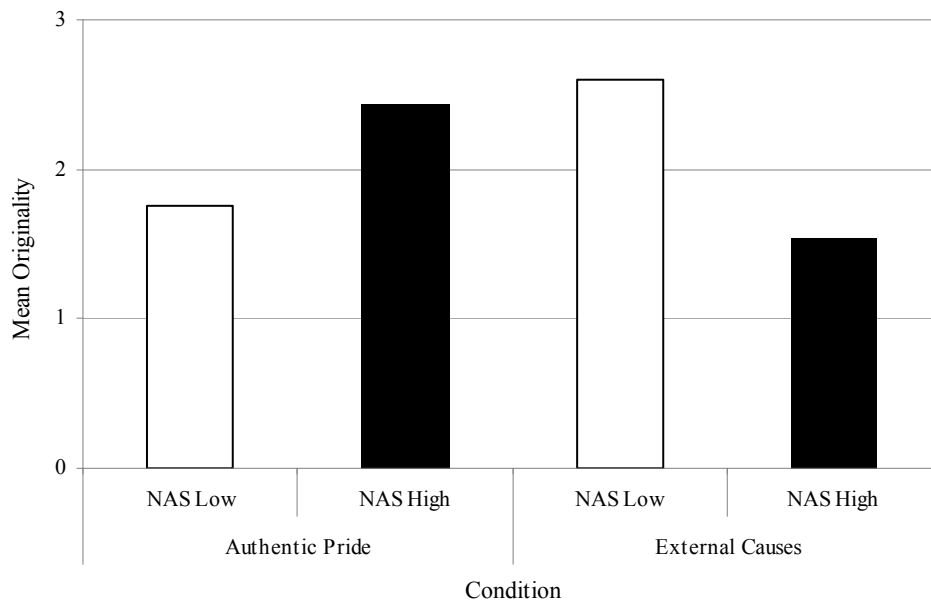


FIGURE 2
Mean Originality by NAS and Condition.

DISCUSSION

As hypothesized, results do not show a general link between nonattachment and creativity, but only a link in the “authentic pride condition.” Among people who scored higher in nonattachment, performance was more creative (fluency and originality) when they were asked to remember a past success, in which they had been able to achieve something with strong effort than when they were asked to remember a success due to external causes.

These findings suggest that people who practice nonattachment are not always more creative than people who do not practice it, but their creative potential needs an intrinsic motivation to emerge. People scoring higher in nonattachment, who are not focusing on the connection between personal efforts and positive environment responses, do not act more creatively than the others.

By following this interpretation, in the present research authentic pride works as a moderator of the relationship between nonattachment and creativity, through the activation of intrinsic motivation to achieve. This idea would confirm the positive nature of authentic pride which can impel individuals to develop valued skills and abilities (Williams & DeSteno, 2008).

Therefore, we could say that people who cultivate nonattachment, by practicing either Buddhism or other activities, such as art education or psychotherapy, seem to be more capable of generously giving a creative contribution to a problem’s solution, but only in particular conditions: when they are asked to remember past positive environmental responses to their strong efforts. In order to creatively generate solutions to a problem, they need to feel authentically proud of themselves and motivated to obtain other successes by strongly relying on themselves. According to our results, authentic pride of people scoring higher in the nonattachment scale can be understood as a personal state capable of motivating creative processes.

Our findings — which add something to the 10-year Shamata Project, exploring the concrete benefits of meditation¹ — could influence in a nonattached direction the educational practices aimed at individual creativity development. We can conclude that, in order to activate insights and solutions to life's problems, it is useful not only to make people practice nonattachment but also to activate — through positive pride — an intrinsic motivation to creatively change the reality.

NOTE

1. UC Davis Center for Mind and Brain, MIND Institute, Santa Barbara Institute for Consciousness Studies, the Shambala Mountain Center and other scientists from around the world.

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