Chapter 11
The Unconscious City: How Expectancies About Creative Milieus Influence Creative Performance

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Paris: City of love. New York: The city that never sleeps. Hamburg: The Reeperbahn. Jerusalem: The Holy City. These pairings are only few examples of specific contents people associate with cities or other places. True or not, correspondences of this kind are represented in memory and may pop into mind when people are asked about their knowledge of certain cities. For example, if you are asked to tell a friend what you think about New York, you may recall the many galleries in Chelsea, the roaring nightlife and the clumsy, Woody-Allen-like neurotic genius who avoids your glances.

Over the last decades, researchers in social psychology have made enormous progress in understanding how these sorts of stereotypes are represented in memory (e.g., Collins & Loftus, 1975; Higgins, 1996; Higgins et al., 1977; Huber et al., 2001; Wyer, 2004; Wyer & Radvansky, 1999). More relevant for this chapter, social psychology shows that representations of this nature influence people's feelings, thinking, and behavior (for reviews, see Dijksterhuis & Bargh, 2001; Förster & Liberman, 2007). Maybe the most provocative insight from this research is that representations like these can influence the behavior of people even without them knowing or desiring it (Moskowitz et al., 2004). Such outcomes are called "priming effects." I first summarize classic research focusing on human judgments and behavior and suggest that even creative thinking can be affected by unconscious activation of stereotypes. I then outline research that social psychologists have conducted on creative thinking and continue by arguing that some cities are associated with creativity. I suggest that such thinking works like a self-fulfilling prophecy, that is, that the creativity of people increases when they are reminded of a creative place. I then recount an experiment in which undergraduate participants were exposed to the names of particular cities so briefly that conscious recognition of

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the names was impossible (subliminal presentation). I also report the results of a posttest showing whether this exposure influenced the participants' performance on a creativity task, the prediction being that the creativity of the participants would be automatically increased when they were subconsciously reminded of cities that they associated with a creative milieu.

Classic Research on the Effects of Priming on Human Judgments and Behavior

Higgins et al. (1977) invited participants to an experiment that consisted of two apparently unrelated studies. The first study was a color-naming task for part of which participants had to memorize words, purportedly to increase the difficulty of the task. Some participants were given positive words (self-confident, independent, persistent, adventurous), whereas other participants were given negative words (conceited, aloof, stubborn, reckless). The second study was an impression-formation task in which participants read a description of a person named Donald, who performed a series of ambiguous behaviors that could be regarded as adventurous or reckless (e.g., Donald thought about crossing the Atlantic in a sailboat). Participants then wrote a free description of the target person and marked on a rating scale how much they liked him. Results indicated that Donald was rated as more adventurous and less reckless by the positive priming group than by the negative priming group.

A typical priming experiment has two phases: (a) priming in which participants are exposed to some information, and (b) an ostensibly unrelated perception, memory, or judgment task in which participants' responses to a target stimulus are examined. Psychologically, in the first phase of a priming experiment a stimulus presentation (e.g., reckless or adventurous) leads to activation of associated memory structures. In the second phase this activated memory structure influences the evaluation of a specific target or task performance.

From the perspective of the participant, there is no relation between the two phases (the procedure described above is often referred to as the unrelated-task paradigm). Any effect that the first stage has on the second stage is not noticed by the participant, a fact that rules out conversational effects (e.g., the person thinks that the first stage's information is useful and thus uses it) and motivational effects (e.g., the person wants to help the experimenter find the expected results). Thus, one can conclude that the activated information unconsciously influences the second phase.

It is argued that the first stage enhances the accessibility of the primed construct and that constructs with higher accessibility are more likely to be used than those with lower accessibility (Higgins, 1996). In the study by Higgins et al. (1977) the behavior "thinking about crossing the Atlantic in a sailboat" could be perceived as both adventurous and reckless. A higher accessibility of one of these constructs leads to the perception of the target in terms of that construct. In other words, accessible knowledge may help disambiguate complex stimulus sets.

In a typical priming task people are not aware that they were affected by the first task. If directly asked how they formed their judgments, they would most

likely reply that they based their judgments on the stimulus itself. Participants in the "Donald" experiment, for instance, said that the target person was, indeed, involved in reckless or adventurous activities (i.e., the judgment was "about" the target's behavior and not about the priming event). In logical terms, the influence of the prime is not justifiable; nobody would maintain that the target should be perceived differently because of a previous task of color-naming. Yet these effects occur reliably and have been replicated and used in many experiments by social psychologists (for reviews see Förster & Liberman, 2007; Higgins, 1996).

A different, now classic study by Devine (1989) showed that subliminally priming associations with the category of African Americans (e.g., Negroes, Blacks, lazy) influenced hostility ratings of an ambiguously aggressive target. Because the stereotype against African Americans in the United States is typically related to aggressive concepts, Devine argued that subconscious activation of the social category of Blacks would render such concepts accessible, and would thereby influence judgments about other, unrelated targets. More specifically, participants in the studies were exposed to word sets that were either highly related to the categories or not highly related to them. The stimuli were presented at the computer subliminally, that is, for a duration so short that participants were not even aware of the fact that words had appeared. In the second phase the participants received a description of a person who behaved in an ambiguously aggressive way. In other words, the person could have been described as assertive or aggressive. Participants who had been exposed to words related to the African-American stereotype rated the person to be more aggressive than did participants who had not been exposed to the stereotype. Notably, Devine never displayed words that were directly related to aggression, so it can be assumed that the mere activation of the category Blacks also activated associated information that had an additional influence. It was assumed that social categories are stored in memory in the shape of associative or semantic networks (Collins & Loftus, 1975) in which activation spreads from the category node (e.g., Black) to more specific information (e.g., aggressive).

More recently, Bargh and his research group have reported data showing that even behavior can be unconsciously affected by priming procedures. For example, Bargh, Chen, and Burrows (1996) subliminally primed participants by showing them either African-American faces or Caucasian faces. The former condition was intended to prime aggression, for many U.S. Americans have been shown to associate African Americans with aggression. After priming, participants were filmed as they completed a boring computer task during which the computer unexpectedly crashed. Participants' behavior was more aggressive after exposure to African-American faces than after exposure to Caucasian faces. Researchers have found such priming effects with other behaviors as well, including slowed walking by participants after they had been primed by information associated with the elderly (Bargh et al., 1996), enhanced helping behavior after semantic priming of helping-related concepts (Walther et al., 2001), and conformity after priming of conformity-related information (Epley & Gilovitch, 1999).

Does priming also influence people's creative thinking? In order to make such an assumption, one first needs to accept that creativity can change within the social

context. Is there any reason to believe that creativity is not only a fixed personality trait (i.e., differs between people) but also something that can change depending on the situation? I now summarize research on creativity in context.

The Social Psychology of Creativity

Human creativity has traditionally been considered a personality trait (see e.g., Eysenck, 1993; Simonton, 1991). As Guilford (1950) put it: "In its narrow sense, creativity refers to the abilities that are most characteristic of creative people" (p. 444). However, social psychologists have demonstrated that creative cognition is significantly responsive to situational and social contextual variation, suggesting that the notion of creativity as a personality trait is too narrow. In her pioneering work, Amabile and her colleagues (for a review see Amabile, 1996) has shown that creativity is undermined by the provision of extrinsic rewards and the expectation of social evaluation. Thus, a person is not always living up to his or her creative potential; creative thinking can be enhanced by situationally induced instructions.

A different extensive research program examining the role of moods on creative thought showed that individuals demonstrate more creativity under conditions of situationally induced positive mood than under conditions of a neutral mood (e.g., Isen et al., 1987; Murray et al., 1990; for reviews see also Clore et al., 1994; Hirt et al., 1996; Isen, 2000; Wyer et al., 1999). In a similar vein, Seibt and Förster (2004) showed that negative expectations about one's own group in relation to a certain task undermines creativity, whereas positive expectations enhance it. Another extensive research program has shown that the creative thinking of people is diminished when they dwell on security while performing a creativity task but that creative thinking is enhanced when they focus on ideals (Förster et al., 2006; Friedman & Förster, 2000, 2001, 2002, 2005, 2008; for reviews see Förster & Friedman, 2003). In situations of threat or lack of security, people usually adopt an analytic and detail-oriented processing style that impedes creative thinking, whereas they start exploring their environments and use a more global and flexible processing style when security issues are replaced by ideals, hopes, and aspirations (Friedman & Förster, 2008).

All the studies reported above used manipulations that were set up in a specific situation and demonstrate that a person's creative performance can be influenced by transient states. The studies thus question the notion of traits or "talents" as the only factor influencing creative and analytic thinking style (see also Simonton, 2000). Research documents influences that priming procedures have on creative thinking as well. For example, Förster, Friedman, Butterbach, and Sassenberg (2005) argued that cues of deviancy facilitate creative thinking in a relatively automatic fashion. Given that creativity varies situationally, it seems only reasonable to infer that certain conceptual primes activate behavioral plans or procedures that serve to facilitate creative cognition.

Indeed, there are several reasons why creative thinking should be enhanced when concepts of deviancy are accessible. First, creative products are, by definition, more unusual than others and thus deviate from standard or customary solutions (for a review see Amabile, 1996; Sternberg, 1999). To give some prominent examples, Bruner (1962) sees the creative product as anything that produces "effective surprise" in the observer (p. 5) and Barron (1955) stresses that an original response "should have a certain state of uncommonness in the particular group being studied" (p. 479). Second, the producers of creative outcomes, such as artists, product developers, and scientists, are usually *perceived* as different and unusual in many respects even though this stereotype is sometimes not true (for example, Franz Kafka and Thomas Mann had quite ordinary lives). However, as Sternberg and Lubart (1995) put it, creative people usually "defy the crowd" and produce products that are good but not exactly the kind of thing people would expect. Again, although this notion might be a myth and not a necessary condition for being creative, the stereotype (right or wrong) of creative people and creativity might therefore be associated with deviancy. Third, people might themselves have experienced that creative solutions they have produced were socially nonconforming and sometimes at risk of nonacceptance by some members of society (Sternberg & Lubart, 1991, 1995).

Last but not least, the *processes* that lead to creative thinking might be experienced as somewhat unusual compared to other situations. McGraw (1978) and Taylor (1960) argue that creative tasks are heuristic as opposed to algorithmic. According to Hilgard and Bower's definition (1975), algorithmic tasks are those for which the path to solution is straightforward and clear. In other words, they are tasks for which an algorithm already exists and just has to be retrieved from memory (see Förster & Denzler, 2006). For heuristic tasks, however, no algorithm yet exists; they do not have a clear, readily available, and identifiable solution or solution path (see Amabile, 1996). This creative process might itself therefore be less frequently used, less conventional, more unusual or deviant, and newer than the algorithmic approach. For all these reasons the authors already referred to in this section have assumed the existence of an associative link between deviancy and creativity. In situations that cue the mental representation of deviancy, the supposition is that cognitive procedures usually leading to creative solutions are likely to be activated, a response that facilitates creative performance.

In a series of experiments, the existence of a semantic deviancy-creativity link and its consequences for creative performance was examined. For example, in one experiment, participants were asked to think about members of social groups that are usually perceived to be equally creative but that differ in perceived conformity. Specifically, one group of participants was asked to think about a punk for a short period, whereas the other group was asked to think about an engineer. It was predicted that creative insight would be promoted after thinking about the more deviant figure, the punk. In this experiment, an analytical reasoning (i.e., algorithmic) task was also administered. One may speculate that the stereotype of an engineer is associated with analytical thinking, a link that might

facilitate tasks of this variety. Consistently, the results showed that the participants primed with punk outperformed participants primed with engineer in the creativity task but that the reverse was true for the analytic task. Even thought priming in this experiment was not subliminal; participants consciously thought about the punk, and the experimental procedure ruled out conscious adoption of such algorithmic or heuristic thinking styles by the participants. The two phases were introduced to the participants as two different studies that had been coupled for economic reasons. When asked afterwards, participants showed no suspicion that the tasks were related. Thus, one may conclude that social categories such as "punk" or "engineer" can remind participants of certain ways of thinking that are automatically triggered upon perception of such a group.

To minimize the possibility of conscious effects, the authors used an even more subtle manipulation in a different experiment. While completing a creativity task, some of the participants were incidentally exposed to an abstract painting that symbolically represented the concept of deviancy, whereas the others were exposed to a painting representing the concept of conformity. More specifically, the professionally framed painting in the nondeviancy cue condition was 100 × 70 cm and had a light green background with four rows of three darker green Xs (20 × 15 cm) symmetrically arranged in the foreground. The poster resembled common works of abstract art. In the deviancy cue condition, the X at the far right side in the third row appeared in yellow instead of dark green, symbolically conveying the concept of deviancy. It was predicted and found that incidental exposure to the "deviant" painting would facilitate creative generation. Notably, participants were not aware of this influence, so the experiment demonstrated that creativity can in fact change within the social context by mere exposure to "reminders" of creative thinking, which in this case were cues of deviancy that are part of the creative thinking process. Inspired by the literature on geography and creative milieus, I wondered whether associations with creative cities could also enhance creative thought.

City and Creativity

Some places are indisputably associated with creativity. Montmartre, Trastevere, Berlin's Prenzlauerberg (now instead of Kreuzberg), the Schwabing district in Munich, or New York's Chelsea (now instead of SoHo), for example, might come to mind or ring a bell when people think about creative places. Artists have in fact been attracted by such "creative" places. Some of these persons have moved there, and the tourism industry has fostered such expectancies to attract visits by average people. Similarly, scientists and product developers may be attracted by "creative" places, institutions, or colleges and universities (e.g., Ivy League schools and production centers such as Silicon Valley). The reasons for such accumulation of creative power may be manifold, including the desire to build networks; to experience input from other creative people; to be accepted within a diverse,

nonconformist community; to create research teams; and to feel special, to name a few. However, the aforementioned research suggests that such environments may facilitate creative ways of thinking by virtue of conscious and unconscious reminders. In other words, the mere thought that one lives in Chelsea may trigger creative processing styles, and this effect may additionally bolster creative processing. I even go a step further: Because cities have to be represented in memory to have an effect, the mere thought of a creative place is likely to trigger creative strategies to solve problems, so one does not even need to be in that city in order to increase creativity.

To test this hypothesis, I devised an experiment in which participants were exposed to the names of different cities (Amsterdam, London, New York, and Cologne). I found in a pretest with 40 undergraduate students that these four cities were all associated with creativity by some people in the population. For the study reported below, I also asked the participants whether they associated these cities with creativity. I predicted that only those people who have such an association stored in memory would show enhanced creativity, whereas people for whom such stereotypes did not exist would not exhibit influence of the prime.

This reasoning was based on previous research showing (for male participants) relations between alcohol cues and expectancies of sexual arousal—relations that, in turn, influence arousal-related judgments (Friedman et al., 2005). More specifically, it was found that unconscious exposure to alcohol-related cues, relative to neutral cues, increased the tendency to judge women as sexually attractive but had no effect on judgments of their intelligence. This finding however, was true only for those who held a belief in the aphrodisiac qualities of alcohol. Those who did not expect alcohol to increase their sexual desire were unaffected by the alcohol-related primes. Thus, I suggest similar boundary conditions for the following study, which uses city names as primes. Unconscious reminders will trigger creative thinking only in those participants who have stored a link between creativity and a certain city in their long-term memories.

Study

Participants and Design

We recruited 54 students majoring at the University of Bremen in different disciplines except psychology (27 women; 27 men; average age: 23.40 years; whereby gender had no effects) for an experimental battery on psychological tasks that lasted 2 h. The following study was part of this battery. The experiment had a two-factorial design: 4 City (Amsterdam vs. London vs. New York vs. Cologne) × 2 Expectancy (primed city is creative vs. primed city is not creative). All conditions were tested between participants, and participants were randomly assigned to the priming conditions. Participants were paid €14 for their participation.

Procedure

Participants were asked first whether or not they found the cities of Amsterdam, London, New York, and Cologne creative on a scale from 1 (*not creative at all*) to 9 (*very creative*). This measure was used to decide whether participants had certain associations with or expectations of particular cities. My team and I then used a subliminal priming task (see Chartrand & Bargh, 1996; Mussweiler & Förster, 2000) in which participants, depending on their assigned group, were primed with the word "Amsterdam," "London," "New York," or "Köln" (Cologne) for 70 ms on the pretext of an attention task. The names were flashed on the screen at unpredictable places and times, and the participants had to press designated keys to indicate as quickly and accurately as possible whether the flash had appeared on the right or the left side of the screen. Previous research in our laboratories had shown that 70 ms was long enough to ensure that the stimulus words and masks always appeared to the participants but short enough to rule out conscious recognition. The priming stimuli were therefore unlikely to evoke controlled processes. We closely followed recommendations by Chartrand and Bargh (1996), including all suggested precautions for preventing conscious awareness of these stimuli, including very brief exposure to the primes, immediate masking, and placement of stimulus content in the parafoveal processing area (for details see Mussweiler & Förster, 2000). All participants completed 48 experimental trials, which took approximately 2 min.

After priming, participants were asked to do another, ostensibly unrelated task. They were shown a cartoon picture of a dog sleeping on a sofa, asked to find the most creative caption for the picture, and told that their solution should not be something that was completely meaningless. Participants had 5 min to do the task, but none of the participants needed that much time.

Two experts who did not know the identities of the participants were given the solutions and asked to evaluate them for creativity on a scale from 1 (*not creative at all*) to 5 (*very creative*). The averaged ratings served as the main dependent variable of creativity. On the basis of the expectancy measures, it was decided whether participants believed that the city they were primed with was more creative than the other cities that had served as primes. More specifically, the mean rating of all the cities with which the participants had not been primed was subtracted from the mean of the primed city. A resulting difference higher than zero indicated that participants thought the city they were primed with was more creative than the other three cities. A 4 (City) × 2 (Expectancy) ANOVA was used to test the hypothesis statistically.

Debriefing and interviews took place at the end of the study. Participants did not notice any connection between the tasks, nor did they notice that the priming task contained words. Most of them reported having seen "flashes," some stated that "letter strings" may have appeared, but none of them was able to state the city names that actually had been presented to them.

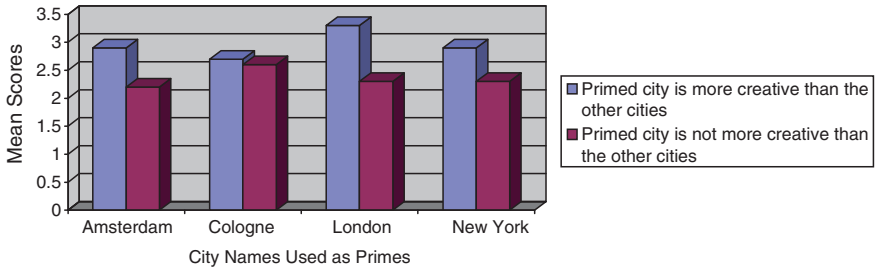

Fig. 11.1 Mean creativity scores (expert judgments) as a function of city name and expectancy: Means on a scale from 1 (*not creative at all*) to 5 (*very creative*)

Results

The mean creativity ratings are shown in Fig. 11.1. Analysis showed no main effects for city and no interaction effect ($F < 1$). However, the predicted main effect of expectancy was highly significant (F (1,46) = 7.47, $p < .01$). Having been primed with a city, participants who generally thought of that city as being relatively creative generated a qualitatively more creative solution to the cartoon of the dog sleeping on the couch (average creativity score: $M = 3.0$ across City conditions) than did participants primed with a city that they generally thought was not more creative than the other cities ($M = 2.3$).

Discussion

The results show that beliefs about the creativity of a given city led to an unconscious activation of processes that bolstered creative thinking, thereby enhancing creative generation relative to situations in which no such belief existed. Before far-reaching conclusions can be formulated, though, the experiment by my team and me obviously needs to be replicated with different participant samples and different creativity tasks. Ordinarily, experimental research by social psychologists examining the feelings, thinking, and behavior of *average* people centers on rather mundane kinds of creativity, such as finding unusual uses for a brick or creating titles for objects and cartoons. Because that research does not take into account more extreme expressions of creativity, it is a problematic basis on which to make generalizations to creative geniuses.

However, our experiment does provide initial evidence that cities can be mentally associated with creativity and that this association can increase creative generation processes. Interestingly, none of the cities we used as primes was specifically attributable to increased creativity. For some participants London was the most creative city, whereas for others it was Cologne, Amsterdam, or New York. This finding may reflect our participants' individual differences with respect

to associations with these cities. Thus, replications in other labs should take into account that their population may associate creativity with rather different cities. We can conclude, though, that merely being reminded of a creative place enhanced participants' creative thought. The preceding experiment adds to research in social psychology by showing how environmental cues can change creative performance. If creativity were only a talent or personality trait, one would not be able to explain why situational manipulations as used in our study led to higher creativity for some participants than for others. We can also conclude that city names and other reminders of creativity can unconsciously trigger processes of creative thinking if a link between those reminders and creativity exists in peoples' long-term memory.

The following paragraphs address some of the issues that may arise from the results we have reported. I first discuss whether the notion of unconscious processes interferes with the notion of free will. I also explore the question of which factors can intensify or change the relation between cities and creativity and then examine some of the implications that these considerations have for real life.

Controlling Behavior by Priming: Myth or Reality?

The idea that priming may change a person's behavior and even such important processes as creative thinking is profound and unsettling. The possibility of altering behavior by using subliminal priming is even frightening. But even though the research community no longer doubts that such effects can occur in real life (Hassin et al., 2005; Wyer, 2008), there are important limitations on them.

The first is the factor of awareness. As used in the study presented above, subliminal primes preclude conscious correction because people are not aware of the prime. But people who do know that such influences are occurring can counteract them. To the best of my knowledge, there is no research on how people control their automatically elicited thinking styles, but investigations on priming related to evaluations show that correction for this influence may well occur. When participants in experiments were made aware that they were primed with the African-American stereotype, for instance, they showed no influence of the primes and had thus corrected for it (Devine, 1989).

The second important limitation on the effects of subliminal priming is the motivation and the time to correct it. A person who lives in a "creative city" and does not want to think creatively because he or she needs to concentrate on analytic tasks instead can consciously focus on the details rather than permit distraction by excessively global, heuristic processes that interfere with goal pursuit. The question is whether he or she wishes to correct for undesired known influences. Such a desire is unlikely in the case of creative thinking because in modern societies creative thinking is a highly desirable skill most people want to improve. In our study, however, we did not include cities that are associated with *lack* of creativity. Those cities might impede creative thinking, so a person who becomes aware of such a detrimental influence may start to counteract it. Correction processes that need

cognitive resources also need time to overcome the automatic influence. Thus even though one may have the intention to correct for an unconscious influence, one may not have the time to correct. More research is needed to test these hypotheses derived from priming research (see Förster & Liberman, 2007).

As implied by the first two limitations on the effects of subliminal priming, the third one is the direction of the influence (see Strack, 1992; Strack & Hannover, 1996; for a recent review see Förster & Liberman, 2007). Knowing the direction of influences is important because people may have incorrect lay theories about what increases or decreases their creative thinking processes. For example, research on whether positive mood enhances creativity contradicts the typical stereotype that creative processes need to be based on depression, suffering, and the like. Thus, if a person thinks positive mood decreases creativity, a correction process may fail because of this incorrect theory.

Aside from limitations on effects, another aspect of subliminal priming is the question of whether manipulations by, say, the media can enhance or decrease thinking. Although there are no studies showing such influences on creativity, research in the domain of consumer research suggests that manipulations are possible. In a series of experiments, Strahan, Spencer, and Zanna (2002) demonstrated that priming people with thirst-related cues such as pictures of soft drinks made them consume more beverages. In these studies, the primes (cans of soft drinks) were presented subliminally in a film, showing that exposure to drink-related stimuli intensified experienced thirst. However, the study also showed an important limitation of such automatic effects, namely, the fact that they were found only for people who came to the lab thirsty. They experienced increased thirst after exposure to the flashed images of soda cans. Thus, a preexisting motive to pursue the goal (in this case, to drink) seems to be necessary for priming to have an effect on behavior.

Other studies, too, have found that priming affects behavior only if it is consistent with an already existing motivation. For example, alternative focal goals may block the effects of priming on behavior. Macrae and Johnston (1998) found that participants who had been primed with helpfulness but who were in a hurry to get to the next experimental session did *not* stop to help a confederate pick up his pens (scattered on the floor). By contrast, participants who had no conflicting goal did give help after helpfulness priming. Concurrent activation of incompatible goals might also explain the fact that people do not get up in the movie theatre to buy soft drinks when they are subliminally primed with these refreshments during the film: Even though some of these people may be thirsty, as demonstrated in Strahan et al. (2002), they have the focal goal of watching the movie and therefore do not get up to buy a soft drink (see Bargh et al., 1996).

Moreover, the same primed concepts can have different behavioral implications, depending on the situation in which the behavior is relevant. New York, for instance, may prime creativity when a person is watching a family blockbuster movie, but it may prime fear when a person is reminded of 9/11—the aerial terrorist attack that destroyed the city's twin towers, killing thousands of people on September 11, 2001 (see Wyer, 2004).

Further research is needed to examine similar effects in the domain of creativity priming. It seems reasonable to suggest that these kinds of influence can be found and produced, though it is beyond my expertise to judge how strong they are. This conjecture may be seen as bad news for the idea of humans as rational thinkers who decide according to their free will what they think and do. On the other hand, the rational thinker may acknowledge the fact of being able to shape the environment and the associations of a society actively. If one no longer wants New York to be associated with 9/11, one may well replace the association by calling attention to other features of this city.

Factors Enhancing the Impact of Cities on Creativity

From the research summarized in this chapter, one may conclude that a city's name is not the only factor with an impact on creativity, that many natural aspects of certain cities stimulate creative thinking as well. It is important to note that experimental studies like the one described above do not reflect reality but rather test a theory, in this case whether mere reminders of creative cities are able to increase creative performance. The study indicates that images, media reports, narratives, or any other reminders of creative cities may have a similar influence. In real life, however, a variety of factors may independently influence how and what people think when they are in or reminded of certain places.

As research on mood and creativity shows (see Isen, 2000), in cities that enhance mood it is likely that creativity is also enhanced. Thus, all the factors involving art festivals, music, ballet, funny parties, mood enhancing colors, architecture, and landscaping, to name only a few, may improve creativity. This connection does not mean that it is necessary to promote all places, occasions, and endeavors to create a "fun" society. At memorials, of course, one wants exactly the opposite of fun and comic humor. In this regard, city planners seeking to shape a creative milieu may wish to keep in mind the insights from research in social psychology.

Similarly, research shows that deviancy (see Förster et al., 2005) may increase creativity. Exposure to deviancy may, of course, occur in cities that allow for and even attract diverse individuals and groups. For example, neighborhoods with mixed ethnic backgrounds may increase the likelihood of encountering uncommon and dissimilar opinions, behaviors, and people, and such exposure can stimulate creative thinking. Research on multicultural work teams shows their superiority to relatively uniform work teams when it comes to creative production (see Crosby et al., 2003). Likewise, diverse architecture and cultural events from diverse backgrounds may create a challenging environment. I hasten to add, though, that exposure to exotic events needs to occur in a nonthreatening way. People are usually afraid of uncommon events (Berlyne, 1974), so diversity needs to be experienced as pleasant rather than frightening, as when people are educated for diversity or when novelty is introduced in a friendly and nonoffensive way.

Emphasizing ideals rather than security should promote creative behavior (Friedman & Förster, 2008; Higgins, 1997) because that sort of focus opens processing up to new, but risky, events and triggers holistic processing that bolsters creative thought (Förster & Higgins, 2005). It might be instructive to examine whether police guards, fences, multiple warning signs, and other constant reminders of security (or lack thereof) decrease creativity in certain places. Historical events such as 9/11 or sudden economic slumps endangering employment and wealth may also immediately change the creative milieu by inducing fear and stressing security and shelter.

Lastly, encouraging environments should promote creativity, as Seibt and Förster's (2004) study shows. People such as caretakers, leaders of organizations and institutions, and politicians can mentally shape the creative atmosphere of a city or other place. If they want a creatively rather than analytically thinking society, they should focus on the positive aspects of performances and should encourage activities, sometimes even risky ones, rather than try to prevent them.

Although these implications are truly speculative, they may inspire further research. All the predictions I have made are based on well-established theories in social psychology that have been confirmed in the laboratory. It is now time to test the implications of these findings in natural and more complex environments.

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