When Self-Destructive Thoughts Flash Through the Mind:
Failure to Meet Standards Affects the Accessibility of Suicide-Related Thoughts

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When individuals realize that they fail to attain important standards or expectations, they may be motivated to escape the self, which could lead thoughts of suicide to become more accessible. Six studies examined this hypothesis, mainly derived from escape theory (Baumeister, 1990). The results indicated that whenever individuals realize that they fail to attain an important standard, they experience increased accessibility of suicide-related thoughts (Studies 1–6). In line with the idea that such effects reflect motivations to escape from negative self-awareness, they were especially pronounced when associated with high levels of self-consciousness and escapist motivations (Study 1) and with a large discrepancy between self and standards (Studies 2–4). Moreover, failure to attain standards increased suicide-thought accessibility along with the desire for an altered state of consciousness (Study 5). Finally, increases in suicide-thought accessibility after failure were associated with simultaneous increases in accessibility of general concepts related to escape (Study 6). Implications of these findings for escape and terror management theories are discussed.

Keywords: escape theory, self-awareness, standards, failure, accessibility of suicide-related thoughts

My paper has been rejected. I'm going to throw myself into the lake.
—Anonymous student

Like the student quoted here, most of us have experienced major failures or setbacks. Fortunately, we are somewhat resilient to failure and do not attempt to end our lives each time we fail to meet important standards or expectations. However, this anecdote suggests that there may be a direct causal link between failure and self-destructive thoughts. That is, when individuals realize that they fall short of standards, they could experience increased accessibility of suicide-related thoughts. The present research examines this intriguing possibility. As we show, even if this hypothesis has never been proposed before, a review of the literature suggests that it is plausible. In particular, it is consistent with an analysis of suicide in terms of motivation to escape the self (Baumeister, 1990, 1991a). The main hypothesis examined here is important, we believe, because it can shed light on some relatively simple but essential issues: When do normal, mentally healthy individuals come to think of suicide? And what kind of situations can trigger self-destructive thoughts?

The Problem of Suicide in Psychology

According to the World Health Organization (2009), almost one million people die by suicide every year. Suicide accounts for more than all deaths from wars and homicides combined. In the past 45 years, suicide rates have increased by 60% worldwide. The prescription of new medications, such as antidepressants, has failed to reduce suicide rates (van Praag, 2002). Furthermore, and rather alarmingly, suicide rates tend to increase in times of economic crisis (Baudelot & Establet, 2006). The psychological causes and antecedents of suicidal behavior thus deserve immediate attention.

Important scientific advances in understanding suicidal behavior have been made. For example, many researchers now consider that suicidal thoughts (i.e., cognitions) are the primary antecedents of suicidal behaviors (e.g., Nock et al., 2008). Many researchers thus believe that by understanding the origin of suicidal thoughts, we can better understand, predict, and treat suicidal behavior (e.g., Wenzel, Brown, & Beck, 2009). In spite of this consensus, however, researchers have not been particularly successful in predicting and preventing suicide (O'Connor, 2003; O'Connor & Sheehy, 2000; Wenzel & Beck, 2008). There are many reasons for this, but part of the problem is the lack of comprehensive models and theoretical frameworks within which specific hypotheses might be developed and tested (Cornette, Abramson, & Bardone, 2000; O'Connor, 2003; Wenzel & Beck, 2008). A related issue is that most research conducted so far has relied on correlational designs (O'Connor, 2003; Wenzel & Beck, 2008), which are limited in their ability to reveal causal relations. Finally, as Nock and Banaji (2007) recently noticed, previous research has relied almost exclusively on individuals' self-reports to assess suicidal thoughts.

This can be problematic, they argued, because individuals may be unwilling or unable to accurately report their own thoughts. A number of researchers have hence suggested that progress may now come from efforts to explore suicidal thoughts through implicit measures (for a distinction between implicit and explicit measures, see De Houwer, Teige-Mocigemba, Spruyt, & Moors, 2009). Nock and Banaji (2007) suggested that implicit measures could provide important information on the associations between the self and concepts related to suicide as well as on the factors that affect the cognitive accessibility of suicide-related thoughts (see also Cornette et al., 2000).

In summary, research should be more integrated into comprehensive theories, should be less correlational in its methodology, and should rely more on implicit measures of suicidal thoughts. These three goals served as guidelines for the present research. We were mainly interested here in the cognitive accessibility of suicide-related thoughts.

The Role of Suicide-Thought Accessibility

Social cognition researchers have long argued that construct accessibility contributes to orienting, shaping, and directing human behaviors (Bargh & Pratto, 1986; Dodgson & Wood, 1998; Greenwald & Banaji, 1995; Higgins, Bond, Klein, & Strauman, 1986; Higgins, King, & Mavin, 1982; Strauman & Higgins, 1987). In the same way, most theories of suicide assume that repeated increases in suicide-thought accessibility play a role in the suicidal process. Consider, for example, the characterization of the processes that precede suicide proposed by Shneidman (1996), a widely acknowledged expert in this domain:

> Suicide is the result of an interior dialogue. The mind scans its options; the topic of suicide comes up, the mind rejects it, scans again; there is suicide, it is rejected again, and then finally the mind accepts suicide as a solution, then plans it, and fixes it as the only answer. (p. 15)

From this viewpoint, suicide-related thoughts can be and are repeatedly rejected when they first come to mind, and a suicide attempt occurs only when this is no longer the case. In a similar vein, several authors have argued that automatic activation of suicide-related thoughts is a phenomenon that needs to be considered in research on suicide (see, e.g., Abramson, Metalsky, & Alloy, 1989; Cornette et al., 2000; Wenzel et al., 2009; Williams & Pollock, 2001). However, to our knowledge, only two groups of researchers have examined cognitive accessibility of concepts related to suicide.

Becker, Strohbach, and Rinck (1999) used a modified Stroop task. Participants were presented with single words in various ink colors and instructed to name the ink color as quickly as possible, regardless of the word's meaning (for a similar procedure, see Williams & Broadbent, 1986). Some words were suicide-related (e.g., *hang*), some suicide-unrelated but negative (e.g., *envy*), some positive (e.g., *talent*), and some neutral (e.g., *square*). If suicide-related concepts are particularly accessible, then recognition of words' meanings should be likely to interfere with recognition of words' colors. In this case, more time would be necessary to name the color of suicide-related words than to name the color of neutral, positive, and negative words. Such attentional bias was demonstrated among individuals who had recently attempted suicide but not in a control group. This bias was not associated with an increase in the accessibility of negative emotional content, but was positively correlated with self-reported suicidal ideation.

Similarly, Nock and Banaji (2007) recently developed the Self-Injury Implicit Association Test to measure how strongly individuals associate self-injury with themselves. The strength of this association is measured through reaction times on a computerized test (for a detailed description of the procedure for this test, see Greenwald, McGhee, & Schwartz, 1998). The results indicated that adolescents who had recently engaged in self-injury showed a positive association between self-injurious concepts (e.g., *cutting*) and self-referent words (e.g., *me*), whereas adolescents who were not self-injurious showed a negative association. In addition, scores on the Self-Injury Implicit Association Test significantly predicted recent suicidal ideation and attempts, as well as suicidal ideation at a 6-month follow-up. These findings suggest that there are individual differences in how individuals process suicide-relevant information, reflecting personal history of suicidal behavior.

In the present research, we used experimental designs to study suicide-thought accessibility in a theoretically integrated manner. In so doing, we relied primarily on escape theory (Baumeister, 1990, 1991a), an important theory of suicidal behavior, but we also integrated insights from several other relevant theories.

Escape Theory

Escape theory is an integrative framework proposing a causal chain that leads to suicide. Influenced by the work of French sociologists Durkheim (1897), Halbwachs (1930), and Baechler (1975), escape theory integrates important notions from personality and social psychology, such as self-discrepancy, self-awareness, and attribution, among others. Its main assumption is that individuals do not attempt suicide because they desire death but rather because they are motivated to escape from self. If they could be someone else, be somewhere else, have another life, not be tormented by existential problems, they would not attempt to end their lives. Thus, escape theory suggests that suicide is best conceptualized as being motivated by the desire to escape the self.

In this framework, suicide involves an orderly progression through six distinct stages, and a suicide attempt is expected if alternative means to escape from the six-stage cycle are not found. The initial step is a major disappointment or failure that is due to events falling severely short of expectations or standards. This may occur because standards are too high, because events are very negative, or both. It is the discrepancy between the standard and reality that is crucial (see also Higgins, 1987). The second stage involves self-blame: Responsibility for failure is attributed to the self. The following steps successively involve high self-awareness, negative feelings and affect, a state of cognitive deconstruction, and finally several consequences of cognitive deconstruction that may increase the appeal of suicide, such as a lack of inhibitions, rejection of meaning, and irrationality.

A variety of indirect evidence provides support for escape theory (for a comprehensive review, see Baumeister, 1990). In particular, different observations tend to corroborate the view that a major disappointment or defeat in attaining important standards plays a major role in precipitating suicidal behavior (see also Williams, 1997, 2001; Williams & Pollock, 2001). Baumeister and his colleagues also found evidence for some specific mechanisms

(Twenge, Catanese, & Baumeister, 2002, 2003) and applied escape theory to a number of other self-destructive behaviors, including alcoholism, masochism, and binge eating (Baumeister, 1988; Heatherton & Baumeister, 1991). Escape theory is a prominent theory of suicidal behavior (e.g., Cornette et al., 2000; O'Connor, 2003). However, because of the difficulty of studying self-destructive behavior, direct evidence for the theory is rather limited.

In the present research, we aimed to contribute to escape theory by specifying when suicidal thoughts emerge in the six-stage cycle, an issue insufficiently addressed by the theory. In the initial formulation of escape theory, suicidal thoughts are assumed to emerge in the final stages of the suicidal cycle, in a state of irrationality and disinhibition that makes drastic measures seem more acceptable. As illustrated by our introductory quotation, however, the relation between failure and suicidal thoughts could be much more direct and straightforward than previously expected.

Escape Theory Revisited

Our theoretical proposition can be considered as an elaboration on escape theory. Baumeister (1990) predicted that individuals *attempt suicide* when they fail to attain important standards. Transposing this reasoning from behavior to cognition, we argue that individuals come to *think of suicide* when they realize that they fail to attain important standards. Indeed, our proposition can be summarized in three main points: (a) failure to attain standards increases motivation to escape from negative self-awareness; (b) when individuals are motivated to escape the self, the means to reach that goal are activated; and (c) suicide is a very efficient means of escaping from self. These three points are briefly developed next.

According to Duval and Wicklund (1972), self-awareness is a state of self-focused attention in which individuals mentally compare their current self-perception (the real self) with the person they ultimately want to become (personal standards, or the ideal self). When comparisons with standards yield undesirable results, self-awareness is postulated to motivate either discrepancy reduction (a fight response) or avoidance of the self-aware state (a flight response). The adopted behavioral response depends on a number of factors, such as importance and permanence of the discrepancy (for a review, see Silvia & Duval, 2001; see also Morin, 2002, 2003). Generally speaking, a large discrepancy that cannot be quickly reduced is most conducive to escapist behaviors.

In the 1970s, researchers used mirrors and cameras to explore motivations to escape negative self-awareness. In some experiments, participants were quicker to leave a room after receiving a negative (rather than positive) evaluation, especially if there was a mirror in the room (Duval & Wicklund, 1972). Similarly, participants were particularly inclined to escape self-awareness (again, this meant leaving a room with a mirror) when they were led to believe, after a negative evaluation, that their failure would be permanent (Steenbarger & Aderman, 1979). In another study, male participants showed a desire to avoid self-related cues after being negatively evaluated by an attractive woman (Gibbons & Wicklund, 1982). In summary, prior research has indicated that negative comparisons between self and standards often induce motivation to escape negative self-awareness.

With regard to the second point, the idea that motivation to escape the self can trigger means to escape is consistent with goal systems theory (Kruglanski et al., 2002). In this framework, motivation and cognition work together rather than as separate entities such that when a goal is activated, means to that goal become automatically accessible. Research tends to confirm this central assumption (see Kruglanski et al., 2002). Moreover, it suggests that the means with the greatest utility to reach the desired goal is the most likely to be activated, even if the presence of competing goals can hinder this activation (Shah & Kruglanski, 2002). Thus, research on goal systems theory suggests that the motivation to escape from self-awareness can trigger the means to attain this specific goal.

Third, suicide has long been considered as a means of escape from aversive self-awareness (for a review, see Baumeister, 1990). Among different means of escape (television, spirituality, alcoholism, etc.), it is certainly not the most pleasant one, but it can be considered as the most radical. In effect, with suicide, one no longer needs to face reality, reduce the discrepancy, or attain unattainable goals or standards. The problem of negative self-awareness is definitely eliminated. Thus, from a purely rational viewpoint (Baechler, 1975), suicide is a perfectly efficient way to attain the goal of escape. In the perspective of goal systems theory (Kruglanski et al., 2002), the means of suicide has great utility in reaching the goal of escape.

These three main points suggest that when individuals realize that they fail to attain an important standard, they may be motivated to escape negative self-awareness, which could lead thoughts of suicide to become particularly accessible.

Death- and Suicide-Thought Accessibility

Because death and suicide are semantically related, an increase in the accessibility of suicide-related thoughts can also generate a parallel increase in death-thought accessibility (through spreading of activation). However, our reasoning based on escape theory suggests that when individuals fail to attain standards, they would think about suicide as a means of escape, rather than as something terrifying (i.e., associated with death). Thus, failure would affect suicide-thought accessibility first. In other words, the spreading of activation would go from suicide- to death-related thoughts rather than the other way around. This suggests that failure would affect suicide- more than death-thought accessibility immediately after confrontation with failure, and possible effects of failure on suicide-thought accessibility would not be accounted for by death-thought accessibility.

Different predictions can be drawn from terror management theory (TMT; Solomon, Greenberg, & Pyszczynski, 1991). TMT is not a theory of suicidal behavior, but it is a comprehensive framework that seeks to understand, explain, and predict how people manage the fear of death. It posits that psychological responses to reminders of death (mortality salience) involve proximal and distal defensive mechanisms (Pyszczynski, Greenberg, & Solomon, 1999). Proximal defenses are initiated when the idea of death is in focal attention and entail denial and suppression of death-related thoughts. Distal defenses emerge when death-related thoughts are highly accessible but are not in focal attention (i.e., after a delay) and entail a tripartite security system consisting of cultural worldviews, self-esteem, and close relationships (Hart,

Shaver, & Goldenberg, 2005). According to TMT, these psychological structures serve as buffers against death anxiety by providing feelings of continuity, stability, permanence, and literal or symbolic immortality.

Considerable research supports the basic tenets of TMT (for a review, see Pyszczynski, Greenberg, Solomon, Arndt, & Schimel, 2004). In particular, studies have indicated that mortality salience, as compared with control conditions, elicits proximal reactions, such as suppression of death-related thoughts, but also elicits distal reactions, such as worldview defense and self-esteem striving. More recently, studies have also suggested that death-related thoughts tend to become more accessible when cultural worldviews, self-esteem, or close relationships are threatened. For example, in some experiments, individuals who identified highly with their nation showed increased accessibility of death-related thoughts after reading an essay that criticized their nation (Schimel, Hayes, Williams, & Jahrig, 2007). In the same way, negative feedback on students' intelligence increased death-thought accessibility among students for whom intelligence was an important source of self-esteem (Hayes, Schimel, Faucher, & Williams, 2008). The mere imagination of a separation with a closely related person increased death-thought accessibility among individuals with an insecure attachment style (Mikulincer, Florian, Birnbaum, & Malishkevich, 2002). In the TMT literature, increases in death-thought accessibility are interpreted as indicating a relatively unconscious fear of one's death (see Hayes, Schimel, Arndt, & Faucher, 2010).

TMT suggests that failure to attain an important standard can undermine the existential protection that self-esteem confers, thus leading to increases in death-thought accessibility (reflecting fear of death). However, because suicide is clearly not compatible with the fear of death (e.g., Heine, Proulx, & Vohs, 2006; Muraven & Baumeister, 1997), TMT would not predict increases in suicide-thought accessibility after failure (even if death and suicide are semantically related). Indeed, such effects would be clearly incompatible with the notion of fear of death, central in TMT. Thus, escape theory and TMT lead us to formulate different predictions. TMT suggests that failure to attain an important standard would increase death- but not suicide-thought accessibility, whereas escape theory suggests that failure would increase suicide- more than death-thought accessibility. Because suicide-thought accessibility has never been assessed in previous TMT studies, it remains to be seen which of these two predictions (if any) is supported by experimental evidence.

The Present Research

In the current research, we were mainly interested in the cognitive accessibility of suicide-related thoughts (an understudied issue), but death-thought accessibility was also assessed in most of our studies to disentangle effects of failure on these two kinds of thoughts. We tested the hypothesis derived from escape theory that failure (i.e., negative comparisons between self and standards) can lead to increases in suicide-thought accessibility.[1] We expected this effect to reflect motivations to escape from negative self-awareness, rather than the fear of death. Thus, it should be moderated by escapist motivations and self-consciousness, such that it should be especially pronounced when associated with high levels of these constructs. It should also depend on the discrepancy

between self and standards, a large discrepancy being the most conducive to suicide-thought accessibility after failure. In addition, this effect should be accompanied by increased accessibility of more general concepts related to escape. It should not, however, be accompanied by increased death-thought accessibility (the fear of death), and priming the idea of death should not increase suicide-thought accessibility. Six studies were conducted to examine these predictions.

In Study 1, we examined whether priming failure could increase suicide-thought accessibility compared with different control conditions, including a death-related prime condition. We also explored whether individual differences in self-consciousness and escapist motivations moderate effects of failure on suicide-thought accessibility. In Studies 2 through 4, we examined the assumption that the discrepancy between self and standards moderates effects of failure on suicide-thought accessibility. In Study 5, priming failure was expected to increase both suicide-thought accessibility and the desire for an altered state of consciousness. Finally, in Study 6, we examined whether failure to attain an unattainable standard might increase suicide-thought accessibility, and whether this effect is accompanied by a parallel increase in accessibility of more general concepts related to escape.

Study 1: Self-Consciousness, Escapist Motivations, and Suicide-Thought Accessibility

In Study 1, we tested the hypothesis that failure to attain an important standard can cause thoughts of suicide to become more accessible, compared with conditions involving no prime or a death-related prime (Hypothesis 1). In this study, we also attempted to identify individual factors and motivations associated with increased accessibility of suicide-related thoughts after failure. Our theoretical reasoning entails that this effect would reflect motivations to escape from negative self-awareness. Hence, this effect should be especially pronounced among participants with relatively high levels of escapist motivations and high levels of self-consciousness (Hypothesis 2). Such moderation by self-consciousness (or chronic self-awareness) and escapist motivations would be very consistent with our theoretical reasoning.

Previous terror management research has shown that following mortality salience, there is an effortful suppression of death-related thoughts, reducing death-thought accessibility (Greenberg, Arndt, Schimel, Pyszczynski, & Solomon, 2001). Research also suggests that this basic defensive strategy is especially pronounced when it is associated with high levels of self-awareness (Arndt, Greenberg, Simon, Pyszczynski, & Solomon, 1998). Thus, in line with TMT, we predicted that a death-related prime, compared with a control condition, would reduce death-thought accessibility among participants high in self-consciousness (Hypothesis 3). A death-related prime should increase death-thought accessibility only among participants with low levels of self-consciousness. Such moderation by self-consciousness would be consistent with terror management theorizing and research.

In summary, we expected that different conditions and motivations would lead to increases (or decreases) in death- and suicide-

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thought accessibility. In line with TMT, we expected a death-related prime (compared with a control condition involving no prime) to provoke typical proximal reactions predicted by and documented in the terror management literature (i.e., a suppression of death-related thoughts), especially among participants high in self-consciousness. In line with our predictions derived from escape theory, we also expected that priming failure (compared with a control condition involving no prime and a condition involving a death-related prime) would lead to increased accessibility of suicide-related thoughts, especially among participants high in both self-consciousness and escapist motivations.

Methods

Participants. Eighty-four students (42 female, 40 male, and two gender-unspecified participants) from the University of Geneva took part in this study (M_{age} = 26.12 years, SD = 6.37).

Procedure and materials. Participants were tested individually by a research assistant. They received a booklet (in French) including all the materials. They first completed measures of self-consciousness, escapist motivations, and desirability of control. This last measure was included to test a hypothesis alternative to our predictions. According to this hypothesis, increased accessibility of suicide-related thoughts after failure would reflect motivations to restore a sense of control, rather than motivations to escape negative self-awareness. This possibility was suggested by recent research indicating that the desire to restore a generalized perception of control plays a major role in how people respond to existential threats (Fritsche, Jonas, & Fankhänel, 2008). Next, participants were randomly assigned to one of three conditions: a control condition including no prime, a death-related prime condition, and a failure-related prime condition. Finally, participants completed a word completion task assessing death- and suicide-thought accessibility.

Self-consciousness. Individual differences in private self-consciousness (nine items; e.g., "I'm always trying to figure myself out") and public self-consciousness (seven items; e.g., "I'm usually aware of my appearance") were assessed using Scheier and Carver's (1985) Self-Consciousness Scale (French version by Pelletier & Vallerand, 1990). Participants responded to each statement on a 4-point scale (0 = *not like me at all*, 3 = *a lot like me*). We averaged private and public self-consciousness scores to indicate global self-consciousness, α = .81. High scores on this measure indicate high self-consciousness (or chronic self-awareness).

Escapist motivations. We used nine items of the COPE Inventory (Carver, Scheier, & Weintraub, 1989) reflecting escapist tendencies in the face of stress. Participants were asked to indicate how they deal with negative and stressful life events in general by rating a number of possible strategies on 4-point Likert scales (1 = *I usually don't do this at all*, 4 = *I usually do this a lot*). We selected items assessing renouncement or disengagement (four items: "I admit to myself that I can't deal with it, and quit trying"; "I just give up trying to reach my goal"; "I give up the attempt to get what I want"; "I reduce the amount of effort I'm putting into solving the problem"), mental avoidance or escape (four items: "I turn to work or other substitute activities to take my mind off things"; "I daydream about things other than this"; "I sleep more than usual"; "I go to movies or watch TV to think about it less"), and alcohol/drug substance use (one item: "I drink alcohol or take

drugs in order to think about it less"). These items showed good interitem correlations and satisfactory internal reliability, α = .70. They were thus averaged to form a global score of escapist motivations. Participants scoring high on this measure show a high inclination to escape when confronted with negative and stressful life events.

Desirability of control. Individual differences in motivation to control the events in one's life were assessed with the Desirability of Control Scale (Burger & Cooper, 1979). Representative items of this 20-item instrument are as follows: "I prefer a job where I have a lot of control over what I do and when I do it" and "I try to avoid situations where someone else tells me what to do." Participants responded to each statement on a 7-point scale (1 = *this statement doesn't apply to me at all*, 7 = *this statement always applies to me*). This scale showed good internal reliability, α = .72 (three items were excluded because of low interitem correlations). High scores indicate high motivation to exert control in one's life.

Experimental conditions. In the death-related prime condition, participants were asked to describe, as precisely as possible, the emotions and feelings that the idea of living during war elicited in them. They also indicated what they would do if they were confronted with such a situation one day. In the failure-related prime condition, participants were asked to describe, as precisely as possible, the emotions and feelings that the idea of failing to find a job after college (and becoming poor as a consequence) elicited in them. They also indicated what they would do if they were confronted with such a situation one day. Participants in the priming conditions were given 3 min to complete the task. In the control condition, participants did not complete any tasks.

Construct accessibility. Participants next completed a word completion task, adapted from previous TMT studies (see Hayes et al., 2010), to assess accessibility of concepts related to death and suicide. Participants were asked to complete 24 word fragments (e.g., $L I \_\_\_$), presented in the same order to all participants, such as to form a word (e.g., $L I V R E$, which means "book" in French). Intertwined in the list were four fragments that could be completed either as neutral or as death-related (target words were *tombeau* [grave], *mort* [dead/death], *cercueil* [coffin], and *décès* [decease]), and four fragments that could be completed as neutral or as suicide-related (target words were *suicide* [suicide], *pendre* [to hang], *corde* [rope], and *veine* [wrist]). The words meaning rope, to hang, and wrist were used because they refer to the most common methods of suicide in Europe (Värnik et al., 2009). As in previous research (e.g., Maxfield et al., 2007), to control for individual differences in the number of word fragments completed, we computed percentages of death- and suicide-related completions by dividing the number of death- and suicide-related words completed by the total number of word fragments completed and multiplying the result by 100. After the experiment, participants were thanked and debriefed.

Results

Data were screened for outliers (following McClelland, 2000), but no atypical observations were found in this study (for descriptive statistics, see Table 1). Table 2 presents means and standard deviations for the proportions of death- and suicide-related completions within each condition.

To test Hypotheses 1 and 2, we conducted a regression analysis on the proportion of suicide-related completions. We created two contrast-coded variables: one contrasting the failure condition with the other two conditions (no prime and death-related prime conditions) and the other contrasting the no prime condition with the death-related prime condition. We next examined main effects of the two contrast-coded variables, of self-consciousness, and of escapist motivations, as well as all two-way and three-way interactions (product terms) among these variables.

Regressions conducted on suicide-thought accessibility revealed a main effect of the contrast opposing the failure condition and the other two conditions after controlling for all other variables, $\beta = .24$, $t(69) = 2.30$, $p < .05$. The contrast opposing the no prime condition and the death-related prime condition was not significant, $\beta = -.05$, $t(69) = -.47$, ns. Similarly, there were no main effects for self-consciousness, $\beta = .18$, $t(69) = 1.55$, ns, or escapist motivations, $\beta = .18$, $t(69) = 1.65$, ns. There were no significant two-way interactions ($ps > .10$), but there was a significant three-way interaction involving the contrast opposing the failure condition and the other two conditions, self-consciousness, and escapist motivations, $\beta = .25$, $t(69) = 2.09$, $p < .05$.

To decompose this interaction, we computed the effect of the contrast opposing the failure condition and the other two conditions at plus or minus one standard deviation from the means of self-consciousness and escapist motivations (following Aiken & West, 1991). These analyses revealed that the difference between the failure condition and the other two conditions was most pronounced at high levels of both self-consciousness and escapist motivations, $\beta = .59$, $t(69) = 2.90$, $p < .01$. This difference was not significant at low levels of self-consciousness and/or escapist motivations ($ps > .10$). Thus, in line with Hypotheses 1 and 2, the failure prime increased suicide-thought accessibility compared with the other two conditions, and this effect was the most pronounced among persons scoring high in both self-consciousness and escapist motivations.

In examining Hypothesis 3, we ran the same regression analysis on the proportion of death-related completions. In this analysis, only the two-way interaction between self-consciousness and the contrast opposing the no prime condition and the death-related prime condition reached significance, $\beta = -.39$, $t(69) = -3.59$, $p < .001$. This interaction indicated that the death-related prime condition, compared with the no prime condition, increased death-related completions among participants scoring low in self-consciousness (computed at -1 SD), $\beta = .47$, $t(69) = 2.91$, $p < .01$, but decreased death-related completions among participants scoring high in self-consciousness (computed at 1 SD), $\beta = -.37$, $t(69) = -2.41$, $p < .05$. These findings fit Hypothesis 3. A death-related prime reduced death-thought accessibility among participants high in self-consciousness (in line with the notion of suppression).

The significant three-way interaction found on suicide-related completions remained statistically significant, $\beta = .24$, $t(69) = 2.01$, $p < .05$, after controlling for death-related completions. In the same way, the significant two-way interaction found on death-related completions remained statistically significant, $\beta = -.42$, $t(69) = -3.86$, $p < .001$, after controlling for suicide-related completions. Thus, effects found on suicide-related completions were not mediated by death-thought accessibility, and vice versa.

A regression analysis on the difference between death- and suicide-thought accessibility was conducted to test whether the effects obtained on these two kinds of thought differed. Two significant interactions were revealed. There was a two-way interaction between self-consciousness and the contrast opposing the no prime and the death-related prime condition, $\beta = .39$, $t(69) = 3.52$, $p < .001$. There was also a three-way interaction involving self-consciousness, escapist motivations, and the contrast opposing the failure condition and the other two conditions, $\beta = .27$, $t(69) = 2.30$, $p < .05$. Thus, effects found on death-thought accessibility were specific to death-related thoughts, and effects found on suicide-thought accessibility were specific to suicide-related thoughts.

Table 2
Means and Standard Deviations for Death- and Suicide-Related Completions in Study 1

	Condition		
Completions	No prime	Failure prime	Death-related prime
Suicide-related	4.18 (4.11)	6.25 (4.75)	3.54 (3.00)
Death-related	5.19 (5.21)	6.32 (4.24)	5.12 (5.07)

Note. Standard deviations are in parentheses. In an analysis of variance, the effect of condition was significant on suicide-related completions, $F(2, 78) = 3.14$, $p < .05$, $\eta^2 = .07$, but not on death-related completions, $F(2, 78) < 1$, ns, $\eta^2 = .01$.

Table 1
Descriptive Statistics in Study 1

		Correlation				
Variable	*M* (*SD*)	Self-consciousness	Escapist motivations	Control motivations	Death-related completions	Suicide-related completions
Self-consciousness	2.11 (0.37)	—	.18[†]	.17[†]	.09	.16
Escapist motivations	1.96 (0.52)		—	.01	.11	.15
Control motivations	4.96 (0.70)			—	−.05	−.06
Death-related completions	5.56 (4.82)				—	.16
Suicide-related completions	4.72 (4.20)					—

[†] *p* < .10.

Finally, we examined whether control motivations moderated the effect of our contrast-coded variables on death- and suicide-related completions. Death-thought accessibility was regressed on the two contrast-coded variables, control motivations, and the product terms between each contrast-coded variable and control motivations. In this analysis, we found no significant effects ($ps >$ .10). On suicide-thought accessibility, we found only a significant effect of the contrast opposing the failure condition and the other two conditions, $\beta = .26$, $t(75) = 2.26$, $p < .05$. Thus, control motivations did not moderate the effect of experimental condition on death- and suicide-thought accessibility.

Discussion

The results of Study 1 were in line with our predictions derived from escape theory. Overall, priming failure increased suicide-thought accessibility compared with control conditions involving no prime or a death-related prime. Consistent with the idea that this effect reflects a desire to escape from self, it was the most pronounced among participants scoring high in both self-consciousness and escapist motivations. In addition, in line with the idea that failure affects suicide-thought accessibility first, these effects were more pronounced on suicide- than on death-thought accessibility. Indeed, they were specific to suicide-thought accessibility. In this study, we found no evidence for the prediction derived from TMT that failure increases death-thought accessibility. However, in line with TMT, priming the idea of war (vs. no prime) reduced death-thought accessibility among participants scoring high in self-consciousness. It seems that when these individuals are confronted with the idea of war, they reflect on themselves, which induces typical defensive reactions predicted by TMT (i.e., a suppression of death-related thoughts). In contrast, priming the idea of war (vs. no prime) increased death-thought accessibility among participants low in self-consciousness. Finally, Study 1 results did not support the view that increased accessibility of suicide-related thoughts after failure reflects a desire to restore a sense of control.

Study 2: The Dark Side of High Cultural Standards

Study 1 provided experimental evidence in favor of our predictions that failure to meet standards is associated with increased accessibility of suicide-related thoughts and that this effect reflects a desire to escape negative self-awareness. To further substantiate this claim, in Studies 2 through 4, we examined whether the discrepancy between self and standards moderates effects of failure on suicide-thought accessibility. According to escape theory, when the discrepancy between self and standards becomes larger, the desire to escape the self becomes stronger. This suggests that failure would increase suicide-thought accessibility more when it is associated with a high rather than a low discrepancy between self and standards.

In line with this idea, in Study 2 we tested the hypothesis that the same failure (unemployment and poverty) would have different implications in a country with high standards of living (high gross domestic product, high employment rates, etc.) than in a country with lower standards. The discrepancy between self and standards is larger when individuals fail to reach high rather than low standards. The ideas of unemployment and poverty may thus provoke a greater increase in suicide-thought accessibility in a country with high standards of living, where almost everyone is employed, than in a country with lower standards of living, where unemployment and poverty are rather common.

To test this hypothesis, we conducted a study with students from Switzerland and Côte d'Ivoire. These two countries strongly differ on a number of relevant economic indicators. For instance, the gross domestic product per capita in 2008 was estimated at $40,900 in Switzerland and at $1,700 in Côte d'Ivoire (Central Intelligence Agency, 2009). The same year, the unemployment rate in Switzerland was estimated at 3% and at 40% to 50% in Côte d'Ivoire (Central Intelligence Agency, 2009). Given these differences, and somewhat counterintuitively, we expected ideas of unemployment and poverty to provoke a stronger increase in suicide-thought accessibility among Swiss than among Ivorian students.

Methods

Participants. Participants were 44 students from the University of Geneva, Switzerland, and 60 students from the University of Abidjan, Côte d'Ivoire. There were 22 male and 22 female students in Switzerland ($M_{age} = 24.41$, $SD = 4.39$) and 50 male and 10 female students in Côte d'Ivoire ($M_{age} = 25.86$, $SD = 3.21$).

Procedure and materials. The Swiss sample was recruited by a research assistant on the campus of the University of Geneva. The sample from Côte d'Ivoire was recruited by a research assistant on the campus of the University of Abidjan. Participants received a booklet (in French) containing all the necessary materials and instructions for the experiment. They rated the national standards of their country before being primed or not with unemployment/poverty. Finally, they completed a thought accessibility measure, similar to the one used in Study 1.

National standards. Participants were provided with a list of 10 propositions concerning standards of living in their countries, for example, "Standards of living are high in Switzerland (vs. Côte d'Ivoire)"; "Switzerland (vs. Côte d'Ivoire) is a wealthy country"; "It is easy to find a job in Switzerland (vs. Côte d'Ivoire)." They indicated their agreement with each statement on a 7-point Likert scale (1 = *completely disagree*, 7 = *completely agree*). Scale reliability was judged satisfactory in Switzerland ($\alpha = .72$) and in Côte d'Ivoire ($\alpha = .70$).

Experimental conditions. Participants were randomly assigned to one of two conditions, similar to the no prime and the failure condition used in Study 1. In the failure prime condition, participants were asked to respond to the following statements: "Please describe, in a few words, the feelings and thoughts that the idea of failing to find a job after University arises in you" and "Imagine and describe, as precisely as possible, what would happen to you if you became poor in the long term." For each question, a blank space for answers was provided. In the no prime condition, this task was simply omitted.

Construct accessibility. Next, participants completed a word completion task similar to the one used in Study 1. There were four fragments that could be completed either as neutral or as death-related (target words were *grave, dead/death, coffin,* and *decease*) and four fragments that could be completed either as neutral or as suicide-related (target words were *suicide, to hang, rope,* and

wrist). To control for possible effects of experimental condition on negatively valenced thoughts, in this study we also included four fragments that could be completed as neutral or as sadness-related (targets words were *échec* [failure], *déprime* [depression], *triste* [sad], and *chagrin* [grief]). Finally, 12 fragments could be completed only as neutral. Proportions of death-, suicide-, and sadness-related completions were calculated as in Study 1. After the experiment, participants were thanked and debriefed.

Results

The death- and sadness-thought accessibility scores contained one atypical observation each (with a *z* score greater than 3 *SD*); these observations were excluded from the analyses. As expected, cultural standards were perceived as being higher in Switzerland ($M = 4.98$, $SD = 0.70$) than in Côte d'Ivoire ($M = 3.30$, $SD = 0.89$), $F(1, 102) = 106.28$, $p < .001$, $\eta^2 = .51$. Thus, participants were quite aware of the low or high cultural standards of their countries.

To test our hypothesis, we conducted a 2 (country: Switzerland vs. Côte d'Ivoire) × 2 (condition: prime vs. no prime) × 3 (word fragments: death vs. sadness vs. suicide) analysis of variance (ANOVA) on the proportion of word fragments completed, with repeated measures on the last variable. In this analysis, there was a main effect of the repeated variable, $F(2, 96) = 9.65$, $p < .001$, $\eta^2 = .09$. Overall, participants completed more fragments as related to death ($M = 7.55$, $SD = 4.96$) and suicide ($M = 7.51$, $SD = 4.88$) than as related to sadness ($M = 5.14$, $SD = 4.06$). There was also a significant three-way interaction, $F(2, 96) = 3.38$, $p < .04$, $\eta^2 = .03$ (see Table 3 for the means). To examine the nature of this interaction, we performed separate ANOVAs on death-, sadness-, and suicide-related completions.

Country had a significant effect on the proportion of death-related completions, $F(1, 98) = 8.41$, $p < .01$, $\eta^2 = .08$, indicating that participants from Côte d'Ivoire ($M = 8.73$, $SD = 4.46$) had more death-related completions than participants from Switzerland ($M = 5.93$, $SD = 5.14$). There was no effect of prime, $F(1, 98) < 1$, *ns*, and no interaction, $F(1, 98) = 1.23$, *ns*.

There were no significant effects of condition, $F(1, 98) < 1$, *ns*, or of country, $F(1, 98) = 1.56$, *ns*, on the proportion of sadness-related completions, and there was no significant interaction, $F(1, 98) < 1$, *ns*.

There were no main effects of country, $F(1, 99) < 1$, *ns*, or of prime, $F(1, 99) = 2.50$, $p = .11$, $\eta^2 = .02$, on the proportion of suicide-related completions. However, there was a significant interaction between country and prime, $F(1, 99) = 5.61$, $p < .02$, $\eta^2 = .05$ (see Table 3). Planned comparisons indicated that, as expected, Swiss participants provided more suicide-related completions when primed with unemployment/poverty than in the no prime condition, $t(99) = 2.61$, $p < .02$. In contrast, the prime had no effect on participants from Côte d'Ivoire, $t(99) = -0.60$, *ns*. There were no other significant differences ($ps > .05$).

In an analysis of covariance, the interaction between country and condition on suicide-related completions remained statistically significant, $F(1, 95) = 6.75$, $p < .02$, $\eta^2 = .06$, after controlling for death- and sadness-related completions.

Discussion

The results of Study 2 were consistent with our expectations. Unemployment and poverty seem to have different psychological implications for people from countries with high and low standards of living. Participants from Switzerland, a country in which unemployment and poverty are relatively rare, showed greater accessibility of suicide-related concepts when primed with unemployment and poverty than when they were not primed (replicating thereby the results found in Study 1). In contrast, participants from Côte d'Ivoire, a country in which unemployment and poverty are much more common, were unaffected by the prime. These findings are in line with the contention that high cultural standards at the national level may have a dark side. In line with escape theory, high standards seem to create a burden on the self and a high inclination to escape in case of failure.

As in Study 1, failure had only small effects on death-related completions, and effects of failure were specific to suicide-related completions. Participants from Côte d'Ivoire showed greater accessibility of death-related thoughts than participants from Switzerland, but this effect was not qualified by a significant interaction with the condition. The recent civil war in Côte d'Ivoire may account for this difference. Whatever the reason, these findings provided initial support for our hypothesis that the discrepancy between self and standards moderates effects of failure on suicide-thought accessibility. We further examined this hypothesis in Study 3.

Study 3: One Man's Meat Is Another Man's Poison

In Study 3, we examined the idea that it is the discrepancy between self and standards, rather than the negativity of the prime per se, that is crucial in increasing suicide-thought accessibility after failure. In previous studies, we used only negative primes to induce failure. Thus, it is possible that only such primes lead to increases in suicide-thought accessibility. Our reasoning based on escape theory suggests, however, that even a positive prime could increase suicide-thought accessibility to the extent that it renders salient a discrepancy from an important standard. To examine this possibility, we confronted Swiss participants with their country's very high standard for life satisfaction. In the experimental condition, participants read an essay indicating that more than 90% of Swiss citizens are satisfied with their living conditions. This essay, which reported only positive information (i.e., high levels of

Table 3
Means and Standard Deviations for the Proportion of Death-, Sadness-, and Suicide-Related Completions in Study 2

Completions	Switzerland		Côte d'Ivoire	
	No prime	Failure prime	No prime	Failure prime
Death-related	5.44 (5.22)	6.48 (5.26)	9.26 (3.97)	8.20 (4.91)
Sadness-related	4.84 (4.84)	4.32 (4.21)	5.22 (3.82)	5.89 (3.57)
Suicide-related	5.39 (5.12)	9.60 (4.07)	8.11 (4.89)	7.02 (4.53)

Note. Standard deviations are in parentheses. An analysis of variance revealed a significant interaction between country and condition on suicide-related completions but not on death- or sadness-related completions (see text).

satisfaction in various domains), was not included in the control condition. Even if the general tenor of the essay was positive, it represented a failure for participants who did not feel particularly happy. When these individuals realize their failure to attain their country's high national standard for life satisfaction, they may be motivated to escape the self, which could cause thoughts of suicide to become more accessible. We thus expected confrontation with the high national standard to induce an increase in suicide-thought accessibility among Swiss participants relatively low (vs. high) in subjective happiness.

Methods

Participants. Participants were 80 University of Geneva undergraduates (M_{age} = 22.64, SD = 5.51; 69 female and 11 males; all Swiss native), who took part in the study collectively at an educational science course.

Procedure and materials. Participants first completed a measure of subjective happiness. Next, they read (or not) an essay reporting levels of life satisfaction in their country and completed a construct accessibility measure.

Subjective happiness. We assessed subjective happiness with the scale developed and validated by Lyubomirsky and Lepper (1999). This measure consists of four items (α = .77), and the associated 7-point Likert response scales vary in their anchoring point labels. An illustrative item is "In general, I consider myself . . ." with the associated response scale anchored 1 = *not a very happy person* and 7 = *a very happy person*. High scores indicate high subjective happiness (M = 4.76, SD = 1.12).

Experimental condition. Next, participants in the experimental condition were exposed to an essay entitled, "Life Conditions in Switzerland: More Than 90% Satisfied." This essay reported the results of a survey indicating that more than 90% of Swiss citizens were highly satisfied with their working conditions, their balance between professional and private life, and their housing conditions. Inspired by a real newspaper article, the essay concluded that "Swiss citizens have all good reasons to be happy." In the control condition, the essay was omitted. Participants were randomly assigned to one of the two conditions.

Construct accessibility. The accessibility of suicide-, death-, and sadness-related concepts was assessed and calculated as in Study 2. After the experiment, participants were thanked and debriefed.

Results

Suicide-thought accessibility scores contained one atypical observation (with a z score greater than 3 SD), which was excluded from the analyses. To test our hypotheses, we ran regression analyses to predict our dependent variables from condition (control coded −1 and experimental coded 1), subjective happiness (continuous variable, centered), and their product term.

For the proportion of sadness-related completions, there was only a significant effect of happiness, β = −.26, $t(76)$ = −2.33, p < .03. As might have been expected, the happier the participants were, the fewer fragments they completed as sadness-related.

For the proportion of death-related completions, there were no significant effects of condition, β = .08, $t(76)$ = 0.70, *ns*, of happiness, β = .03, $t(76)$ = .29, *ns*, or of their product term, β = .04, $t(76)$ = 0.36, *ns*.

For the proportion of suicide-related completions, there were no effects of condition, β = .15, $t(75)$ = 1.39, *ns*, or of happiness, β = −.13, $t(75)$ = −1.13, *ns*. However, the interaction was significant, β = −.24, $t(75)$ = −2.16, p < .04 (Figure 1). Simple slope tests indicated that, as expected, the effect of prime was significant among relatively unhappy participants (computed at −1 SD), β = .40, $t(75)$ = 2.49, p < .02, but not among relatively happy participants (computed at 1 SD), β = −.09, $t(75)$ = −0.59, *ns*. Viewed differently, happiness and the proportion of suicide-related completions were unrelated in the control condition, β = .11, $t(75)$ = 0.78, *ns*, but were negatively related in the priming condition, β = −.37, $t(75)$ = −2.17, p < .04.

The interaction between condition and subjective happiness on suicide-related completions remained statistically significant, β = −.24, $t(73)$ = −2.14, p < .04, after controlling for sadness- and death-related completions. In the same way, a regression analysis was run to predict scores of difference between death- and suicide-related completions from our key variables, to verify whether effects on these two indicators of thought accessibility were different. In this analysis, we found a nearly significant interaction between condition and subjective happiness, β = −.19, $t(75)$ = −1.71, p < .10, indicating that our variables had a greater impact on suicide- than on death-related completions.

Discussion

Results of this study confirmed that relatively unhappy Swiss citizens show increased suicide-thought accessibility when confronted with the high national standard of their country in terms of life satisfaction. In contrast, exposure to this standard did not affect relatively happy individuals. These findings provide a scientific account of the familiar contention that "one man's meat is another man's poison."

The present findings were also consistent with the idea that even a positive prime can trigger suicide-related thoughts to the extent that it renders salient a discrepancy between self and standards. These findings could not be accounted for by increased accessi-
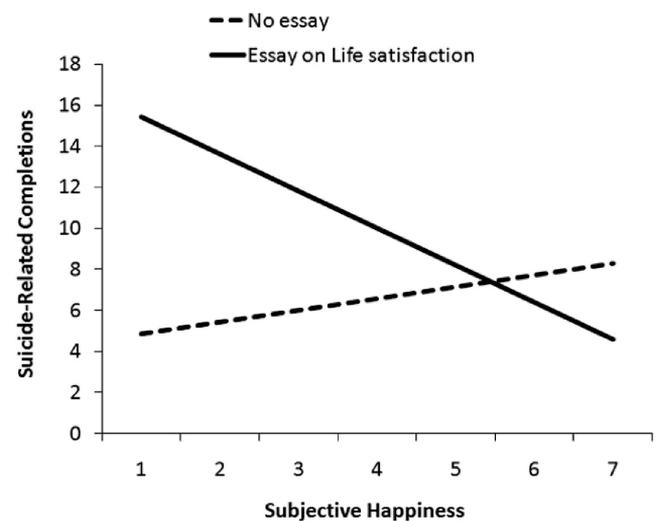
Figure 1. Suicide-related completions as a function of subjective happiness and essay on life satisfaction (Study 3).

bility of death- and sadness-related thoughts, and they were quite specific to suicide-related thoughts. We found no significant effects on death-thought accessibility and found only a main effect of subjective happiness on sadness-thought accessibility. In Study 4, we set out to conceptually replicate these effects in a different culture.

Study 4: Disappointment With Capitalism and Suicide-Thought Accessibility

Study 4 was conducted in the Czech Republic, a country that has recently undergone substantial and successful changes in its transition from communism to capitalism (Pehe, 1994). The Czech Republic is often depicted in the media as a model of successful transition. Of course, the transition generated high expectations for improvement in life conditions. However, because transition could not bring equal improvement to everyone, some individuals are disappointed by the new capitalist system. In line with our theoretical reasoning, when those individuals are confronted with the idea that the transition is a success (a positive prime), they should become highly aware of the fact that events fell short of their expectations and should therefore experience increased suicide-thought accessibility. This effect should not appear among those not disappointed with capitalism, as transition brought them the improvement that they had expected.

In summary, this study could provide converging evidence from a country with a different cultural background and in a different language that a positive prime can lead to increases in suicide-thought accessibility when it renders salient a discrepancy between self (personal attitude toward capitalism) and an important standard (the success of the transition).

Methods

Participants. This study was conducted on a heterogeneous sample of adults ($N = 65$). Participants were Czech (27 men, 37 women, and one gender-unspecified participant). Their mean age was 54.19 ($SD = 7.78$).

Procedure and materials. Participants were recruited by a research student who contacted her family members, acquaintances, neighbors, and her parents' social network. Participants were all over 40 years old and had thus known both communist and capitalist systems. They were given a booklet (in Czech) containing all the necessary materials and instructions for the study. Participants rated their disappointment in the capitalist system, before being exposed (vs. not) to a procapitalist essay stressing the positive consequences of the transition. Finally, they completed a construct accessibility measure similar to the one used in previous experiments.

Disappointment by capitalism. Participants were provided with a list of propositions concerning the transition from communism to capitalism. They indicated their agreement with each proposition on a 7-point Likert scale (1 = *completely disagree*, 7 = *completely agree*). Embedded in this list were three propositions tapping disappointment with capitalism: "I had high expectations for capitalism, but today I'm disappointed"; "Today, I'm disappointed because capitalism did not keep its promises"; "I've grown disillusioned with capitalism." Responses on these items were averaged to form a global score of disappointment with capitalism ($\alpha = .79$, $M = 2.90$, $SD = 1.37$).

Experimental conditions. In the priming condition, participants were exposed to an essay, inspired by articles published in Czech magazines or on the Internet, entitled "For a New Czech Republic" and ostensibly written by a historian. This essay stressed the positive consequences of the transition. Participants read the following:

> Since the first hours of its independence, our country has undergone a major national construction. We have broken all links to the communist history. This was not easy. We have suffered instability, political and economic crises, and many forms of conflicts. However, we have successfully faced all these difficulties. We have successfully changed from communism to capitalism. Nowadays, the Czech Republic is one of the most successful transition economies. Since March 2004, we are members of the European Union, and we will soon be part of the Euro zone. Henceforth, we make important advances in all aspects of life (economic, political, social, etc.).

In the control condition, the essay was omitted. Participants were randomly assigned to one of the two conditions.

Construct accessibility. Participants were presented with 20 word fragments. Six could be completed either as neutral or as suicide-related, and five could be completed as neutral or as death-related. The possible suicide-related words were *sebevražda* [suicide], *povesit se* [to hang oneself], *provaz* [rope], *žila* [wrist], *zastřelit se* [to shoot oneself], and *otràvit se* [to poison oneself]. The possible death-related words were *smrt* [death], *mrtvi* [dead], *hrob* [grave], *rakev* [coffin], and *hrbitov* [cemetery]. Other fragments could be completed only as neutral. The proportions of suicide- and death-related completions were calculated as in previous studies. After the experiment, participants were thanked and debriefed.

Results

To test our hypothesis, we ran regression analyses to predict death- and suicide-related completions from condition (essay coded 1 and no essay coded –1), disappointment with capitalism (continuous variable, mean centered), and their product term.

On death-related completions, the regression analysis revealed no significant effects of condition, $\beta = .02$, $t(61) = 0.16$, *ns*, of disappointment with capitalism, $\beta = .08$, $t(61) = 0.66$, *ns*, or of the interaction term, $\beta = -.02$, $t(61) = -0.16$, *ns*.

On the proportion of suicide-related completions, the effect of condition was significant, $\beta = .36$, $t(61) = 2.94$, $p < .01$. Overall, participants completed a greater proportion of fragments as suicide-related when they were exposed to the essay ($M = 9.68$, $SD = 5.84$) than when they were not ($M = 7.06$, $SD = 4.53$). In addition, disappointment with capitalism was positively related to the proportion of suicide-related completions, $\beta = .34$, $t(61) = 2.67$, $p < .02$. These main effects were qualified by a significant interaction, $\beta = .31$, $t(61) = 2.55$, $p < .02$ (Figure 2). Consistent with our reasoning, simple slope tests revealed that exposure to the essay increased suicide-related completions in individuals highly disappointed with capitalism (computed at 1 *SD*), $\beta = .70$, $t(61) = 3.60$, $p < .001$, but not in those less disappointed with capitalism (computed at –1 *SD*), $\beta = .02$, $t(61) = 0.11$, *ns*. Viewed differently, disappointment with capitalism was positively related to suicide-related completions when participants read the essay, $\beta = .66$, $t(61) = 3.24$, $p < .01$, but not when they did not, $\beta = .01$, $t(61) = 0.09$, *ns*.
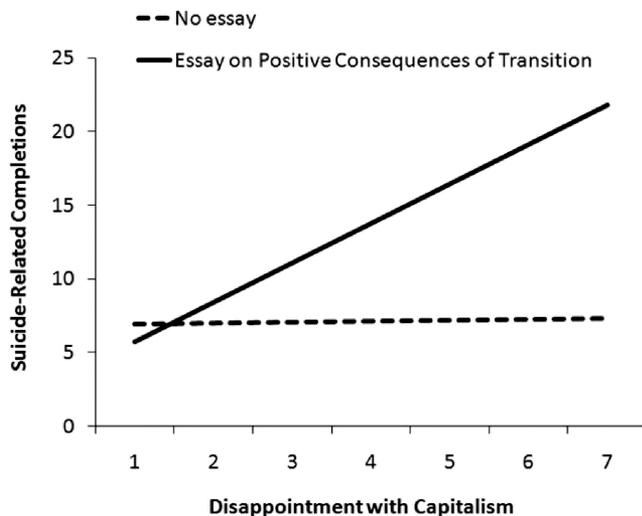
Figure 2. Suicide-related completions as a function of disappointment with capitalism and essay on positive consequences of transition (Study 4).

The interaction between disappointment with capitalism and condition on suicide-related completions remained statistically significant, $\beta = .30$, $t(61) = 2.50$, $p < .02$, after controlling for death-related completions. In the same way, there was a significant interaction between disappointment and condition on difference scores between suicide- and death-related completions, $\beta = .27$, $t(61) = 2.12$, $p < .04$, indicating that our variables had a greater impact on suicide- than on death-related completions.

Discussion

The results confirmed our expectations. Individuals highly disappointed with capitalism, compared with those less disappointed, showed greater accessibility of suicide-related thoughts when exposed to an essay stressing the success of the transition to capitalism, that is, when they were confronted with the discrepancy between their disappointment and the cultural success of the transition. Once again, reminding participants of a globally positive outcome (i.e., the success of the transition in their country) led to an increase in suicide-thought accessibility in some participants. This counterintuitive finding is consistent with escape theory. The current results provided evidence for our reasoning in a different culture, on an older population, and in a different language.

Taken together, the findings of Studies 2 through 4 were consistent with the idea that suicide-thought accessibility is especially pronounced when individuals perceive a large discrepancy between self and standards. In Study 5, we examined whether failure, compared with another aversive condition, could increase suicide-thought accessibility and the desire for an altered state of consciousness. To achieve this aim, we studied a small sample of marijuana smokers.

Study 5: Failure and the Desire for an Altered State of Consciousness

People use marijuana or cannabis for several reasons: Some seem to take pleasure from it, some use it as a medicine for physical or psychological pains, some smoke to stimulate their creativity, and so forth. Researchers have argued that some drugs (e.g., alcohol) can reduce negative self-awareness (Hull, 1981), but there is no evidence that marijuana can serve such a function. Thus, in this study, we do not assume that marijuana serves the purpose of escaping self-awareness. However, smoking marijuana causes an alteration of brain activity, resulting in an altered state of consciousness (altered perceptions, judgments, movement coordination, etc.). Research suggests that the quest for an altered state of consciousness can be considered as a coping strategy. For example, the COPE Inventory (Carver et al., 1989), used in Study 1, includes one factor called substance use (e.g., "I've been using alcohol or other drugs to think about it less"). Responses on this item are strongly related to responses on other items that nonambiguously assess escapist behaviors (e.g., "I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping"). Thus, even if marijuana use is not necessarily motivated by the desire to escape from negative self-awareness, there are reasons to believe that sometimes individuals desire smoking marijuana to avoid dealing with their problem.

In Study 5, we considered the desire to smoke marijuana broadly as an indication of the desire for an altered state of consciousness. We expected that priming failure (vs. anger) among a sample of marijuana smokers would increase both the desire to escape the self (suicide-thought accessibility) and the desire for an altered state of consciousness (the behavioral intention to smoke marijuana). In other words, we expected priming failure to elicit more escapist reactions than priming anger. Such findings could provide evidence that failure to attain important standards affects not only accessibility of suicide-related concepts but also relevant behavioral intentions.

Methods

Participants. Participants in this study were 29 members of an Internet forum related to marijuana use and growing (one woman and 28 men), who volunteered to complete a questionnaire in English. Their age ranged from 22 to 52 ($M = 33.2$ years, $SD = 7.3$), and they were all regular marijuana smokers, of various nationalities and professions. They were recruited by posts on the forum, inviting them to complete an anonymous questionnaire.

Procedure and materials. After reading instructions for the study, participants were primed either with the idea of anger or with the idea of failure. Next, they completed a construct accessibility measure, an explicit measure of affect, and a measure of the intention to smoke marijuana.

Experimental condition. In the control condition, participants were asked to recall the occasion in which they had experienced the greatest anger in their lives. In this way, the control condition pertained to a negative and stressful experience but one that was unrelated to failure. In the failure condition, participants recalled their greatest personal failure. In the two conditions, participants were asked to describe the negative event in a few statements and to indicate the repercussions that it has had on their lives.

Construct accessibility. Participants completed a word completion task similar to those used in previous studies. The word completion task, containing 30 word fragments, was called Creative Task. Among the fragments, six could be completed as

neutral or as death-related (target words were *coffin*, *dead*, *killed*, *grave*, *skull*, and *buried*), and five could be completed as neutral or suicide-related (target words were *attempt*, *hang/hung*, *rope*, *suicide*, and *wrist*). The remaining 19 fragments could be completed only as neutral. Death- and suicide-thought accessibility were assessed as in previous studies.

Affect. To examine possible effects of our conditions on affect, participants completed the 10-item form of the Positive and Negative Affect Schedule (Kercher, 1992; for the original scale see Watson, Clark, & Tellegen, 1988). They indicated how inspired, scared, alert, excited, upset, nervous, enthusiastic, determined, afraid, and distressed they felt on 7-point Likert scales (1 = *completely disagree*, 7 = *completely agree*). We computed average positive (α = .86) and negative emotions (α = .97).

Intention to smoke marijuana. Participants reported the amount of time that they thought would pass before they smoked marijuana the next time (in minutes). Low scores on this measure indicated high intentions to smoke marijuana.

Results

Five observations were detected as outliers on the measure of intention to smoke marijuana (with z scores greater than 3 SD). To avoid excluding too many observations, we recoded these observations to 15 min (i.e., the highest value with an acceptable Cook's distance). The results were very close when the five extreme observations were excluded rather than recoded. To avoid redundancy, we report hereinafter only findings observed with the transformed scores.

A 2 (condition: anger vs. failure) $\times$ 2 (type of thoughts: suicide vs. death) ANOVA on construct accessibility, with repeated measures on the last variable, revealed only a significant effect of the type of thoughts, $F(1, 26) = 4.88$, $p < .04$, $\eta^2 = .16$. Overall, participants showed greater accessibility of suicide- than of death-related thoughts. However, this effect was qualified by a marginal interaction with the condition, $F(1, 26) = 4.01$, $p < .06$, $\eta^2 = .13$, indicating that experimental condition did not have the same effect on death- and suicide-thought accessibility. Death-related completions were not statistically different in the failure condition (M = 5.39, SD = 4.28) than in the anger condition (M = 5.75, SD = 5.19), $F(1, 26) < 1$, *ns*, $\eta^2 = .00$. However, as expected, suicide-related completions were significantly more frequent in the failure (M = 11.28, SD = 7.41) than in the anger condition (M = 6.03, SD = 5.21), $F(1, 26) = 4.69$, $p < .04$, $\eta^2 = .15$.

A 2 (condition: anger vs. failure) $\times$ 2 (affect: positive vs. negative) ANOVA on affect, with repeated measures on the last variable, revealed only a significant effect of the repeated variable, $F(1, 26) = 17.73$, $p < .001$, $\eta^2 = .47$. Overall, participants reported more positive than negative affect (M = 3.62, SD = 1.14, and M = 2.06, SD = 1.26, respectively), but this effect was not qualified by a significant interaction with the condition, $F(1, 26) = 1.15$, *ns*, $\eta^2 = .05$.

An ANOVA on the intention to smoke marijuana revealed a strong effect of condition, $F(1, 27) = 20.97$, $p < .001$, $\eta^2 = .44$. In the anger condition, participants intended to smoke marijuana in about 10 min (M = 10.73, SD = 5.49). Those in the failure condition expected to smoke in 2.50 min on average (SD = 4.01).

Discussion

Results of this study were consistent with our expectations. In line with the idea that individuals are particularly motivated to escape the self when they fail to attain important standards, suicide-related thoughts were more accessible and desire to smoke marijuana was more urgent when participants were reminded of their greatest personal failure rather than of their greatest anger. Priming failure did not seem to induce more negative emotions than priming anger. However, priming failure, rather than anger, considerably increased intention to smoke marijuana. This is consistent with the idea that consciousness is problematic after failure and that individuals can desire smoking marijuana in order to avoid (at least momentarily) dealing with their failure.

In Study 6, we set out to extend previous findings by testing the hypothesis that failure to attain important standards increases not only suicide-thought accessibility but also the accessibility of more general concepts related to escape and relief.

Study 6: The Thin-Ideal Body or When Standards Are Unattainable

Western societies impose very high and often unattainable standards of beauty for women. In Study 6, we tested whether failure to attain the thin-ideal body standard (compared with larger models) might cause thoughts of suicide to become more accessible. Research supports the sociocultural perspective that mass media promulgates criteria for slenderness that elicit body dissatisfaction in women (for a review, see Groesz, Levine, & Murnen, 2002). Brief exposure to media images depicting the thin-ideal body (compared with larger models) has been linked to women's body dissatisfaction, internalization of the thin ideal, and eating disorders (for a recent meta-analysis of more than 70 studies, see Grabe, Ward, & Hyde, 2008). This prompted an examination of the links between exposure to the cultural standard of the thin-ideal body and suicide-thought accessibility. In line with our theoretical reasoning, we expected women who did not feel particularly satisfied with their body (i.e., who felt that they did not meet the cultural standard of thinness) to show increased suicide-thought accessibility after brief exposure to images of the thin-ideal body. We did not expect this effect to appear (or expected it to be reduced) among women who were relatively satisfied with their body.

In Study 6, we also explored whether increased accessibility of suicide-related thoughts after failure to attain cultural standards is associated with a simultaneous increase in the accessibility of more general concepts related to escape. In Studies 2 and 3, we found no effects of our manipulations on accessibility of negatively valenced thoughts (sadness, depression, etc.), suggesting that failure to attain standards does not affect negative/positive thoughts in general. Our theoretical reasoning suggests, however, that failure to attain important standards would increase not only suicide-thought accessibility but also the accessibility of more general concepts related to escape. Such a pattern of findings would be consistent with the logic of goal system theory that activation of a goal (escape) automatically triggers means to that goal (suicide).

We did not assess death-thought accessibility in this study, in part because it became clear from our previous studies that failure to attain standards has only small effects on this kind of thought

(this issue is taken up further in the General Discussion section), and in part because we wanted to ensure that failure to attain standards affects suicide-thought accessibility even when accessibility of death-related thoughts is not simultaneously assessed.

To provide converging evidence for our reasoning using a different method, we used a lexical decision task, rather than a word completion task, to assess accessibility of concepts related to suicide and escape. We thus predicted that images of the thin-ideal body (vs. images of larger models) would facilitate identification of suicide- and escape-related words in a lexical decision task and that this effect would be moderated by participants' body dissatisfaction.

Methods

Participants.   Participants were 43 female students (M_{age} = 24.41 years, SD = 7.40) from the University of Geneva who took part in an experiment on personality and body image.

Procedure and materials.   The experiment was implemented on a computer using E-prime software. Participants first completed measures of body mass index and body dissatisfaction. Next, they were exposed to a thin-ideal body model or to a larger model. Finally, they completed a lexical decision task to assess construct accessibility.

Body mass index and body dissatisfaction.   Participants were first asked to indicate their height and weight. This allowed us to compute their body mass index. According to this objective indicator (M = 21.53, SD = 2.91), 83.3% of participants had normal weight, 9.5% were underweight, 4.8% were overweight, and only 2.4% were obese. Research has indicated that women's subjective perceptions of their bodies are often better predictors of their behavior than the body mass index. Thus, participants were also asked to complete the Body Dissatisfaction Scale (Garner, Olmsted, & Polivy, 1983). They indicated their agreement with nine propositions (e.g., "I think that my thighs are too large"; "I like the shape of my buttocks"; "I think that my hips are too big"), using 7-point Likert scales (1 = *completely disagree*, 7 = *completely agree*). High scores on this measure (α = .84) indicate feelings of dissatisfaction with one's weight and one's body. Body mass index and body dissatisfaction scores were strongly positively related, $r(42)$ = .70, p < .001.

Experimental condition.   Participants were randomly exposed to one of six media images depicting a female top model and were asked to form an impression of this person. All images represented the same model (in different positions and wearing different sets of underwear). However, the images were slightly modified in Photoshop, such that the model looked underweight (in the thin-ideal condition) or overweight (in the large model condition).[2] The only difference between conditions was the underweight versus overweight appearance of the model.

Construct accessibility.   Participants completed a lexical decision task, which involved distinguishing between words and nonwords presented on the computer screen. They were instructed to press a key labeled *word* if they saw a word and a key labeled *nonword* if they saw a nonword. The task was composed of 48 trials, presented in a computerized totally random order to each participant. There were 32 nonwords and 16 words (eight neutral words, four suicide-related words, and four escape-related words). The suicide-related words were the same as those used in our previous studies: *suicide* [suicide], *pendre* [to hang], *corde* [rope], and *veine* [wrist]. The escape-related words were *échapper* [to

escape], *calme* [quiet], *paix* [peace], and *sereine* [serene]. The neutral words were *vent* [wind], *souvent* [often], *ballon* [ball], *livre* [book], *bonsoir* [good evening], *train* [train], *haie* [hedge], and *poche* [pocket]. Participants were instructed to proceed as quickly as possible, while trying to answer each trial correctly. Unbeknownst to participants, the computer recorded the speed with which they responded to each of the 48 trials (in milliseconds). At the end of the study, participants were probed for suspicion and fully debriefed.

Results

In line with recommended procedures for this type of data, we first conducted some minor transformations on our reaction time data (Bargh & Chartrand, 2000). Incorrect responses (fewer than 1%) were excluded from the analysis, and responses greater than 2,000 ms (about 3%) were recoded to 2,000 ms. In addition, one participant was excluded because she was detected as an outlier (with z scores on reaction time data greater than 3 SD). After these transformations, the assumptions for data analysis were acceptably met. We thus computed mean reaction times for suicide, escape, and neutral words for each participant.

To test our main hypothesis, we regressed reaction time for each kind of words on condition (large model coded -1 and thin-ideal model coded 1), body dissatisfaction scores (continuous variable, mean centered), and the interaction term.

For reaction time for neutral words, the analysis revealed no effect of condition, β = $-.20$, $t(38)$ = -1.25, *ns*, no effect of body dissatisfaction, β = $-.08$, $t(38)$ = -0.48, *ns*, and no interaction, β = $-.02$, $t(38)$ = -0.12, *ns*.

The results were quite different on reaction time for suicide-related words. There was a nearly significant effect of condition, β = $-.26$, $t(38)$ = -1.84, p < .08. Reaction time for suicide-related words were somewhat lower in the thin-ideal condition (M = 761.96, SD = 224.26) than in the large model condition (M = 903.95, SD = 295.88). There was no main effect of body dissatisfaction, β = $-.14$, $t(38)$ = -0.97, *ns*. However, the predicted interaction was significant, β = $-.35$, $t(38)$ = -2.42, p < .02 (see Figure 3). An analysis of simple slopes revealed that, as expected, participants relatively high in body dissatisfaction (computed at 1 SD from the mean) showed lower reaction times for suicide-related words in the thin-ideal condition than in the large model condition, β = $-.60$, $t(38)$ = -3.09, p < .005. This difference was not significant among participants relatively low in body dissatisfaction (computed at -1 SD from the mean), β = .07, $t(38)$ = 0.35, *ns*. Indeed, body dissatisfaction scores were not significantly related to reaction times for suicide-related words in the large model condition, β = .21, $t(38)$ = 0.98, *ns*, but body dissatisfaction scores were negatively related to reaction times for suicide-related words in the thin-ideal condition, β = $-.49$, $t(38)$ = -2.50, p < .02.

The interaction between body dissatisfaction scores and condition on reaction times for suicide-related words remained statistically significant, β = $-.33$, $t(38)$ = -3.20, p < .005, after controlling for reaction times for neutral words. In the same way, there was a significant interaction between body dissatisfaction scores and condition on difference scores between reaction times for

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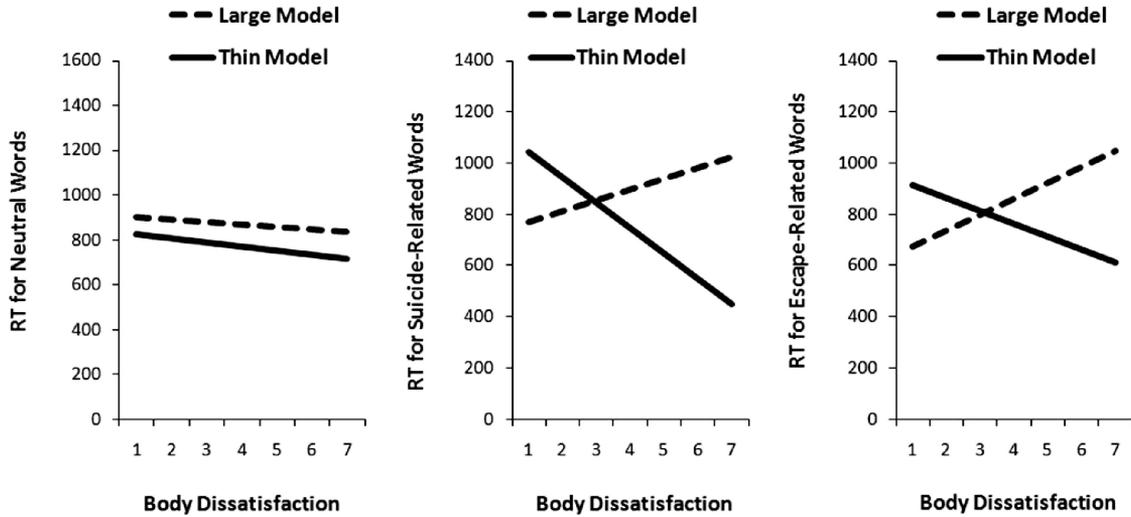[2] Stimulus materials are available on request from Armand Chatard.

Figure 3. Reaction time for neutral, suicide-related, and escape-related words as a function of body dissatisfaction and the model to which participants were exposed (Study 6). RT = reaction time.

suicide-related and neutral words, $\beta = -.42$, $t(38) = -2.88$, $p < .01$, indicating that our variables had a greater impact on suicide- than on neutral-related words (Figure 3).

For reaction times for escape-related words, there were no main effects of condition, $\beta = -.17$, $t(38) = -1.16$, *ns*, or of body dissatisfaction, $\beta = .03$, $t(38) = 0.19$, *ns*. However, there was a nearly significant interaction, $\beta = -.29$, $t(38) = -1.92$, $p < .07$ (Figure 3). This interaction indicated that participants relatively high in body dissatisfaction showed lower reaction times for escape-related words in the thin-ideal condition than in the large model condition, $\beta = -.46$, $t(38) = -2.23$, $p < .04$. This difference was not significant among participants relatively low in body dissatisfaction, $\beta = .10$, $t(38) = 0.48$, *ns*. Body dissatisfaction scores were not significantly related to reaction times for escape-related words in the large model condition, $\beta = .32$, $t(38) = 1.44$, *ns*, or in the thin-ideal condition, $\beta = -.26$, $t(38) = -1.27$, *ns*. Thus, the interaction on escape-related words was mainly triggered by reactions of participants with relatively high scores on body dissatisfaction. This interaction remained statistically significant, $\beta = -.28$, $t(38) = -2.46$, $p < .02$, after controlling for reaction times for neutral words.

Discussion

Study 6 results were largely consistent with our expectations. A brief exposure to the cultural standard of the thin-ideal body, compared with exposure to a larger model, increased accessibility of concepts related to suicide among women relatively dissatisfied with their body (i.e., who felt they did not meet the cultural standard). This effect was not found among women relatively satisfied with their bodies. Analyses of escape-related completions suggested that increased accessibility of suicide-related concepts after exposure to the thin-ideal body model was concomitant to increased accessibility of more general concepts related to escape and relief. Such a finding is in line with our reasoning that failure to attain important standards increases motivations to escape the self.

General Discussion

Six studies provided support for the central hypothesis of this article that suicide-related thoughts arise as a result of a motivation to escape from negative self-awareness, when individuals realize that they fail to attain an important standard. This hypothesis, consistent with escape theory, was examined on different standards, among different populations, and with different methods of measuring construct accessibility. The results suggest that when individuals realize that they fail to attain an important standard, they are often motivated to escape the self. Thereby, they experience an immediate increase in the accessibility of suicide-related thoughts. Of course, suicide-related thoughts can increase in accessibility without reaching consciousness. Even when they do, they do not necessarily reflect explicit suicidal thoughts (see our introductory quotation). However, our findings are important because an increase in suicide-thought accessibility is arguably a necessary condition for explicit suicidal thoughts and behavior to occur.

We believe that the present findings offer new insights into when, why, and how suicide-related thoughts come to mind. Our results also have important theoretical implications for escape theory and TMT. In spite of their limitations, that should be kept in mind when interpreting the results, we think that our findings offer new avenues of research for the study of factors that affect accessibility of suicide-related thoughts.

When, Why, and How Suicide-Related Thoughts Come to Mind

Our results indicate that suicide-thought accessibility tends to increase whenever individuals realize that they fail to attain an important standard. Different factors moderate this effect, but we consistently found that negative comparisons between self and standards were sufficient to lead some participants to experience an immediate increase in suicide-thought accessibility. The mere

comparison with a standard did not increase suicide-thought accessibility among participants who met the standard. In the same way, participants who were discrepant from the standard (relatively unhappy Swiss participants in Study 3) did not show increased accessibility of suicide-related thoughts unless they were confronted with the standard. Thus, it seems that it is the conjunction of the two factors that is crucial in generating increases in suicide-thought accessibility. When individuals mentally compare the self with important standards and become aware of a discrepancy, they experience a state of negative self-awareness (Duval & Wicklund, 1972), which seems to be a minimal but sufficient condition to generate increases in suicide-thought accessibility.

Our results suggest that this might occur because individuals fall severely short of standards but also because standards are too high (Studies 2 and 6). This might even occur after a positive prime because it is the discrepancy between self and standards that is crucial in precipitating suicide-related thoughts, rather than the negativity of the prime in itself (Studies 3 and 4). Our results also suggest that suicide-thought accessibility increases after failure because in such situations individuals are motivated to escape from negative self-awareness. In line with this proposal, individuals high in self-consciousness and escapist motivations appeared especially vulnerable to such effects (Study 1). Priming failure increased suicide-thought accessibility only (or mainly) when it was associated with a large discrepancy between self and standards (Studies 2–4 and 6). Finally, increased accessibility of suicide-related thoughts after failure was associated with increased accessibility of more general concepts related to escape and relief (Study 6).

Finally, our results suggest that suicide-thought accessibility increases immediately and quite spontaneously after negative comparisons between self and standards. In line with this view, failure to attain standards led to immediate increases in the proportion of word fragments completed as suicide-related rather than as neutral in a word completion task (Studies 1–5) and reduced reaction times for suicide-related words in a lexical decision task (Study 6). The fact that we found converging evidence for our hypotheses when using reaction time data is consistent with our argument that increased accessibility of suicide-related thoughts after failure is a normal, immediate, and quite spontaneous reaction.

In spite of the recognition that self-defeating behaviors are common even in normal individuals (Baumeister & Scher, 1988), to the best of our knowledge, the current research represents the first attempt to examine suicide-thought accessibility in a theoretically integrated manner relying on experimental designs. Considerable research has explored how people respond to psychological threats, especially self-esteem threats (e.g., Heine et al., 2006). Nonetheless, most of this work has focused on what might be considered fight responses, such as efforts to restore a sense of self-worth or meaning. Very little research has examined how people attempt to escape from such aversive situations (flight responses). From research on self-awareness, we know that the desire to escape the self after failure can have some behavioral implications, such as behavioral avoidance (Silvia & Duval, 2001). The present research complements this line of work by documenting some important cognitive consequences of the desire to escape the self after failure.

Escape Theory Complemented and Extended

In the present studies, we tested one implication of escape theory (Baumeister, 1990), the idea of a direct causal link between failure to attain standards and suicide-thought accessibility. Escape theory implied such a link but never tested it. The present research shows that this causal relation is well supported by experimental evidence. The concept of suicide appears to be strongly connected with the concept of failure, such that the idea of suicide often comes to mind immediately after failure. The main contribution of the present research is to specify when (implicit) thoughts of suicide emerge in the suicidal cycle proposed by escape theory. If explicit thoughts emerge at the end of the suicidal cycle, the very idea of suicide tends to increase in accessibility immediately after failure.

In the present studies, we also tested more specific predictions derived from escape theory. Of interest, the same conditions that lead to suicidal behavior, according to escape theory, also seem to lead to increases in suicide-thought accessibility, according to the present findings. For example, Baumeister (1990) argued that high standards can have a dark side, because of the high expectations that they create and the ensuing substantial stress if those expectations are not met. In line with this contention, our studies suggest that the pursuit of high standards at the national level can have a dark side for those who do not attain them, by giving rise to suicide-related thoughts (Studies 2 and 3). Escape theory also predicts that the desire to escape the self is particularly pronounced in periods of transition and incertitude (Baumeister, 1991b). Indeed, transitions often bring high expectations for a better life. If and when these expectations turn into disappointment, individuals can feel a desire to escape and thus experience an immediate increase in the accessibility of suicide-related thoughts. Study 4 results were consistent with this reasoning. They suggest that the gap between high expectations and disappointment by capitalism in former communist countries can play a role in the very high suicide rates observed in these countries.

In summary, our findings largely confirm the predictive validity of escape theory and suggest that the same conditions that lead to increased accessibility of suicide-related thoughts can also ultimately lead to suicidal behavior.

Reconciling TMT With Suicide

Our findings are at odds with predictions derived from TMT. On the one hand, we found little evidence that failure to attain standards affected death-thought accessibility. On the other hand, we consistently found that failure to attain standards increased suicide-thought accessibility, a finding not particularly compatible with TMT.

There does not seem to be a problem with our measure of death-thought accessibility, because it was affected by other manipulations (a death-related prime in Study 1) in a theoretically predictable way. Moreover, the same measure has been successfully used in many other studies to assess death-thought accessibility. Rather, we believe there are three main reasons for the lack of significant effects of failure on death-thought accessibility. First, our studies were not designed to test TMT predictions. To do this, it would have certainly been preferable to preselect only participants for whom the standard was an important source of

self-esteem (see Hayes et al., 2008). Second, it is quite possible that some of our participants responded defensively to our manipulations, such that they suppressed death-related thoughts. After all, participants often respond defensively to self-esteem threats (e.g., Bongers, Dijksterhuis, & Spears, 2009). Finally, it is possible that death-thought accessibility would have increased later. It is possible, for instance, that suicide-related thoughts are rejected when death-related thoughts become accessible (the fear of death could serve as a safeguard mechanism that prevents thoughts of suicide from influencing action). Because in this research we were interested only in reactions occurring in the immediate aftermath of the confrontation with failure, such an increase may have passed undetected. In summary, there are several possible reasons for the lack of significant effects on death-thought accessibility, and we do not see this as really problematic for TMT.

More problematic, however, is that failure to attain standards increased suicide-thought accessibility. TMT would not have predicted such effects. Clearly, suicide is not compatible with the notion of fear of death, central in TMT (Muraven & Baumeister, 1997). As Heine et al. (2006) noticed, "If people sometimes choose death over meaninglessness, it scarcely seems possible that death can be considered their greatest fear" (p. 105). TMT is a very important and promising theoretical framework that has proved very useful in predicting a variety of human behaviors. Indeed, few behaviors are inconsistent with TMT, except perhaps suicide. If our findings are not compatible with TMT in its actual formulation, we believe that it is possible to reconcile TMT with suicide and accessorily with our findings. To this end, we propose to introduce the notion of the *fear of life* in this theoretical framework.

Indeed, the existentialists have long argued that the awareness of death entails not one but two great fears: *Todesangst* [the fear of death] and *Lebensangst* [the fear of life] (e.g., Heidegger, 1962; Rank, 1952). The latter is the fear of not being who one wants to be, not meeting one's standards, not fulfilling one's aspirations in this world (see Becker, 1973). Indeed, it may be misleading to reduce all human fears to the sole fear of death (Lerner, 1997). The fact that certain persons deliberately choose to kill themselves suggests that the fear of life might sometimes surpass the fear of death. We propose that the fear of life and the fear of death coexist but that they dominate under different conditions. The fear of death would dominate when mortality is salient, whereas the fear of life would dominate when failure is salient. The fear of death leads to the typical reactions documented in the TMT literature, whereas the fear of life promotes escapist thoughts and behaviors. Our findings are consistent with this reasoning.

In summary, even if our findings are not consistent with TMT in its actual formulation, they suggest one interesting possibility for reconciling TMT with suicide.

Limitations

One potential limitation of the present studies is its exclusive emphasis on failure as a determinant of suicide-thought accessibility. In line with escape theory, many negative events (getting fired, getting a divorce, etc.) might be interpreted as a failure. However, our reasoning about the fear of life suggests that other factors than failure can provoke increases in suicide-thought accessibility. Indeed, the same factors that protect from the fear of death (self-esteem, cultural worldviews, and close relationships) may also protect from the fear of life. If self-esteem, close relationships, and cultural values protect from the fear of life, then a disruption in any of these three psychological structures may lead to increases in suicide-thought accessibility, and future research should address this question.

Our aim in the present research was not to examine all factors that could lead to increases in suicide-thought accessibility but to examine whether one factor that is supposed to play a major role in suicidal behavior (failure) affects the accessibility of suicide-related thoughts. We excluded several alternative explanations, but there are probably others that might be relevant. For example, failure to conform to cultural standards can induce fear of social exclusion. Social exclusion has been shown to foster a deconstructed state of mind characteristic of individuals likely to attempt suicide (Baumeister, 1990; Twenge et al., 2003; see also Joiner, 2005). If we agree that some of our results can be interpreted in these terms (Studies 3 and 4), we do not believe that social exclusion provides an adequate and sufficient explanation. In particular, Study 6 seems to provide results inconsistent with such an interpretation. Cultural standards are often very high and sometimes even unattainable (the thin-ideal body). Most people do not reach this standard. In this context, it seems relatively unlikely that women would fear social exclusion. However, we acknowledge that failure and social exclusion are intimately related, and future research may seek to disentangle their respective contributions to the present results.

Behavioral Implications

One final question that arises in relation to our findings concerns the potential behavioral implications of increased suicide-thought accessibility and especially its link to suicidal behavior. When the idea of suicide reaches conscious awareness, in most cases it is likely to be rejected, and individuals might not even notice it as a suicidal thought. However, we believe that the likelihood of a suicide attempt increases to the extent that individuals experience repeated increases in suicide-thought accessibility (i.e., when failure automatically activates the idea of suicide). Such repeated increases in suicide-thought accessibility can lead individuals to believe that suicide is the only available means of escape. Yet, other factors that we believe could facilitate acting out on suicide-related thoughts are self-blame (Baumeister, 1990), the importance and permanence of the discrepancy, and the perception of one's inability to reduce or eliminate the discrepancy (e.g., Silvia & Duval, 2001). In addition, the link between thought accessibility and behavior can be moderated by a censorship of potentially costly behaviors (Macrae & Johnston, 1998) or attitudes toward the behavior in question (Cesario, Plaks, & Higgins, 2006). Recent research also suggests that the interpretation of accessible constructs depends on the situational context and may or may not lead to corresponding action (Jefferis & Fazio, 2008).

Building on goals systems theory (Kruglanski et al., 2002), it could be hypothesized that availability of and reliance on other means of escape could postpone a suicide attempt. In relation to this, one of the potential behavioral consequences of suicide-thought accessibility is engagement in escape-related behaviors other than suicide, such as watching television, spirituality, working, and alcohol or drug consumption, among others. Results of

our Study 5 are consistent with this idea, because suicide-thought accessibility was related to a pressing wish to alter the state of consciousness by smoking marijuana.

Finally, protective and precipitating factors identified in relevant suicide research are to be taken into consideration. In particular, social support, marriage, and parenthood should decrease the probability of a suicide attempt, whereas impulsivity and the availability of means and occasions for suicide could precipitate it.

Concluding Thoughts

The accessibility of suicide-related thoughts is influenced and determined by a sense of failure to attain standards. The set of studies presented here, taken together, underscores a phenomenon that has rarely been examined before and provides a very consistent pattern of results that cannot be easily explained by other theoretical perspectives than the one adopted here. They have important implications for escape theory and TMT. The present research is a first but an important step toward understanding circumstances that cause increases in suicide-thought accessibility.

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