

Suppressing feelings: A double-edged sword to consumer judgment and choice

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Abstract

Consumers may suppress their feelings toward the attractive looks of products when they wish to minimize the influence of feelings on their judgments and choices. However, this research suggests that feeling suppression may result in a paradoxical reliance on feelings in product judgments and choices, especially when the product performance judgment is difficult to make. Findings from a series of experiments suggest that this paradoxical effect stems from the requisite resource input for feeling suppression and the consequent resource competition with functionality processing which then impairs product performance judgment.

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Products are often characterized by both affective aspects (e.g., aesthetics) that evoke feelings spontaneously (Bloch, 1995) and non-affective aspects (e.g., functional attributes) that provide useful information on product performance. During the process of choosing among such products, consumers may or may not wish to rely on their feelings toward the affective aspects of the products. Past research shows that when consumers wish to rely on their feelings (e.g., when they use hedonic criteria as a basis for judgment), they tend to perceive their feelings as relevant to the judgment and incorporate the feelings into the judgment (Pham, 1998, 2004). When consumers do not wish to rely on feelings, however, the impact of the non-use of feelings on product judgment as suggested from the literature is less straightforward. On one hand, there is research on affect suggesting that, when consumers do not wish to rely on their feelings (e.g., when they use utilitarian criteria), they focus on the non-affective, functional aspects of a product (Adaval, 2001, Pham, 1998, 2004), and their judgments will consequently be devoid of feeling inputs as if they have not experienced the feelings. On the other hand, research on affect regulation suggests that since these consumers have already

experienced affective response tendencies, they may have to contend with the feelings by means of suppression. As a form of self-regulation, the feeling-suppression process consumes regulatory and attentional resources (Ochsner, Bunge, Gross, & Gabrieli, 2002; Phelps, 2006; Richards & Gross, 2000; Schmeichel, Vohs, & Baumeister, 2003). Additional consideration arises when the assessment of product functional attributes also demands a significant amount of resources. Under this circumstance, feeling suppression and functional assessment may compete for the same pool of limited resources, rather than operate unobtrusively.

The abovementioned two streams of research thus seem to bear different implications to the role of feelings (both use and non-use of feelings) in consumer judgment, a consideration of which yields both theoretically and practically interesting questions. When consumers intend to make affect-free decisions based solely on product functionality, will they do so by simply considering utilitarian criteria (as the affect literature suggests)? Alternatively, under instances where a feeling-suppression process is involved, would the process deplete the resources available for a careful assessment of product functions (as the affect regulation literature suggests)? And if so, who—consumers who suppress their feelings or those who do not—would be more likely to make a decision based on the assessment of product functional performance? Our research aims to address these questions. We identify

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circumstances under which the non-use of feelings may and may not interfere with the assessment of the non-affective, functional aspects of a product, and we demonstrate that the non-use of feelings may lead to an ironically feeling-based choice when interference occurs. More specifically, when the assessment of functional attributes demands a high level of resources and, at the same time, feeling suppression impairs consumers' capability to carefully scrutinize these functional attributes, consumers who attempt to suppress their feelings will be more inclined to rely on their feelings than those who do not suppress, thereby exhibiting a paradoxical, feeling-based choice behavior.

In the following parts, we first review relevant research and develop hypothesis regarding feeling suppression and its consequence on consumer judgment and choice. We then report a series of experiments that provide support to our hypothesis.

Theoretical framework

Products in the marketplace can often trigger pleasant feelings in consumers. Such instances include when the product aesthetics is attractive (Bloch, 1995) or when consumers have special attachment to a brand (Fedorikhin, Park, & Thomson, 2008). However, they typically cannot buy everything they feel great about, or they may want to attend to the non-affective, functional aspects of a product. In these instances, consumers may contend with their feelings via suppression; for example, they may suppress their delighted feelings toward the sleek design of a camera, so that they can curb the desire to acquire the camera before conducting a careful assessment of its functionality dimensions.

Feeling suppression entails an ongoing process of monitoring and inhibiting affective response tendencies as they arise. An effective feeling-suppression process has several inseparable components (Baumeister, Schmeichel, & Vohs, 2007). In the first place, one has to constantly keep a standard (or goal) of "having no feelings" active in working memory. With this standard activated, one would monitor the current feelings experienced to detect for response tendencies which deviate from the standard. Upon detecting an affective response tendency, one then needs to inhibit this response tendency. These requisite components of feeling suppression draw on two finite resource pools. Firstly, attentional resources from the working memory are required for effective feeling suppression. Attentional resources are responsible for maintaining information in the mind for the execution and sequencing of mental operations (Baddeley, 1986). Thus, an effective feeling-suppression process, which involves keeping the goal of feeling suppression active in the working memory and monitoring feeling states continually, consumes attentional resources. Empirical evidence supporting this notion can be found in psychology and neurophysiological research, which shows that suppressing feeling expression may impair people's memory for the affect-eliciting stimuli (Richards & Gross, 2000), and that suppressing feeling response tendencies is often unsuccessful when the working memory is highly loaded (i.e., low attentional resources; Mitchell, Macrae, & Gilchrist, 2002; Wegner, Erber,

& Zanakos, 1993). Secondly, regulatory resources are also required for effective feeling suppression. These resources are responsible for performing willful behaviors, such as inhibiting feelings and thoughts, avoiding impulsive buying, doing logical reasoning, and managing impressions (Baumeister, 2002; Baumeister & Heatherton, 1996; Schmeichel et al., 2003; Vohs, Baumeister, & Ciarocco, 2005). As a willful behavior, feeling suppression requires the execution of a form of self-regulation—inhibiting feeling response tendencies under active goal guidance, and thus consumes regulatory resources as well. Note that some research suggests that different networks of brain areas are responsible for attentional and regulatory processes, whereas others argue that the distinction is not so clear because the processes are heavily dependent on each other (see Banfield, Wyland, Macrae, Munte, & Heatherton, 2004 for a review). While we acknowledge that these two processes and their corresponding resource pools are substantively different from each other (see Baumeister & Vohs, 2004 for a review), this research does not aim to disentangle the role of regulatory resources from that of attentional resources. The critical issue here is that past literature suggests both types of resources contribute in union to consumers' suppression of their affective responses to products and, therefore, influence product judgments simultaneously.

Because of its resource requirement, suppressing product-elicited feelings may have profound consequences on product judgment and choice. To examine these consequences, we first circumscribe two common bases for product judgment—(a) feelings toward a product which, for example, can be triggered integrally by product features such as aesthetic design, or externally by an advertising appeal, and (b) functional performance assessment of a product. We propose that feeling suppression may influence product choice not only via the former basis of feeling responses but also via the latter basis of functional performance assessment. In principle, feeling suppression should reduce positive feelings toward a product, and hence the assessment of functional attributes should dominate as a basis for judgment and choice. However, a careful assessment of functional attributes often involves activating product knowledge into the working memory, evaluating the importance and favorability of product attributes with reference to a preference structure, comparing this product with other competing products, and integrating the information to form overall product judgments. These cognitive operations require the maintenance of relevant information in working memory, as well as active self-guidance to process the relevant information to form a judgment. Therefore, similar to feeling suppression, a careful assessment of the functional aspects of a product should be sensitive to the availability of attentional and regulatory resources. To put it another way, the two mental processes—suppressing feelings toward the attractive look of a product and assessing its functional attributes may compete for the same pool of resources. Due to the limited nature of the resource pool, consumers may not be able to engage in both processes effectively. To the extent that suppressing feelings depletes resources that could otherwise be used for processing

functional attributes, consumers who suppress their feelings toward a product's affective aspects (vs. those who do not) would be less capable of processing its non-affective aspects.

Moreover, the impairment of processing capability due to feeling suppression is more likely to manifest in consumer choice when the resource demand for processing functional attributes is higher. In other words, resource constraint is most likely to emerge when the functionality information is complicated or difficult to process. Under this circumstance, consumers engaging in feeling suppression would be more likely to have insufficient resources for forming reliable functionality judgments than consumers with no suppression intention. With the lack of reliable functionality judgments as a basis for choice, the former group of consumers may become more likely to rely on their feelings as the primary basis for choice than the latter group (who may use both functionality judgments and feelings as bases for choice). Thus, consumers who attempt to suppress their feelings may exhibit paradoxical, feeling-based choice behaviors which contradict their initial intentions. In contrast, when the functionality information is easy to process, consumers may be capable of processing functionality information while suppressing their feelings toward the affective aspects of products. Under this circumstance, consumers who suppress their feelings may be less likely to rely on their feelings in choices than those who do not. This is because while both groups of consumers are capable of forming functionality judgments as a basis for choice, the former group would experience a lower level of feelings than the latter. Therefore, we predict that:

H1. When product functionality information is easy to process, consumers who suppress their feelings (vs. those who do not) would be less likely to rely on their feelings in making choices. However, when product functionality information is difficult to process, consumers who suppress their feelings (vs. those who do not) would be more likely to rely on their feelings in making choices.

In the following parts, we first report a field experiment (Experiment 1) which provides a marketplace demonstration of the paradoxical effect from feeling suppression. We then report Experiment 2, which adopted a design similar to that of Experiment 1 but with methodological refinements to provide conceptual replications and converging support to our hypothesis. Thereafter, we report Experiments 3a, 3b, and 4 which shed light on the process underlying the paradoxical phenomenon.

Experiment 1

Experiment 1 was aimed at demonstrating that the effect of feeling suppression—whether it would lead to a more or a less feeling-based choice—depends on how difficult it is to process product functionality information. This experiment was conducted in an actual marketplace setting. One hundred adults were intercepted outside two IT shopping malls and asked to fill out a survey, which required them to evaluate two options of home audio system. Each option was characterized by a picture

of it and a list of its attributes. The picture was intended to elicit positive feelings toward the product design and the attributes described the functions of the option. To experimentally assess the differential impact of the affective features (which trigger feelings) and functions (which influence functionality judgments) on choice, the picture and attributes were combined in a way that a more affect-laden design was matched with lower functional performance, whereas a less affect-laden design was matched with higher functional performance. A stronger preference for the former option would indicate an inclination toward relying on feelings than functionality judgments, whereas a stronger preference for the latter option would indicate an inclination toward relying on functionality judgments than feelings.

This field experiment had a 2 (tendency to suppress feelings: high tendency vs. low tendency) by 2 (processing difficulty: easy vs. difficult) design. Participants' tendencies to suppress feelings were measured by questions on their beliefs of the need for feeling suppression in the decision process, while processing difficulty was manipulated as described below.

Stimulus development

Manipulation of processing difficulty

We varied the number of attributes describing the options for manipulating processing difficulty. We compiled functional attributes for the two options in each of the two processing-difficulty conditions (see Appendix for sample attributes). In the easy-to-process condition, the two options were described by six attributes—three differing attributes and three common ones. The common attributes were added to enhance the product descriptions for realism. In the difficult-to-process condition, the two options were characterized by nine attributes—five differing ones and four common ones. The amount of information in each condition was decided based on prior research (Bettman, Luce, & Payne 1998; Campbell, 1988; Malhotra, 1982).

Manipulation of the affective aspects of the options

Two pictures of home audio systems were selected to represent the affective aspects of the options. In the pretest, 30 participants saw the two pictures sequentially (presentation order counterbalanced), and then indicated their feelings toward each of the options on three seven-point scales (1 = negative/bad/unhappy to 7 = positive/good/happy). The responses were averaged (Cronbach's $\alpha = .90$ and $.88$ for the non-affect-laden and the affect-laden options, respectively) and the results showed that participants had greater positive feelings toward the affect-laden option ($M = 5.94$) than the non-affect-laden option ($M = 4.49$), $t(29) = 8.20$, $p < .05$, $\eta_p^2 = .70$, as we expected.

Pretesting of the manipulations

The compiled functional attributes and pictures of the options (low functional performance matched with affect-laden design and high functional performance matched with non-affect-laden design) underwent a pretest to ensure they were judged as representing low vs. high functional performance.

Sixty-two participants were randomly assigned to the easy-to-process condition or the difficult-to-process condition; each participant evaluated both the low and the high functional performance options. After viewing information on the options (order counterbalanced), they indicated their evaluation of the functional performance of each option on two items (-5 =bad/low functional quality to 5 =good/high functional quality) which were averaged to form an index of functional performance (Pearson's $r=.80$ and $.84$ for the low- and the high-performance options, respectively). An ANOVA with processing difficulty as a between-subjects variable and functional performance as a within-subjects variable showed only a main effect of functional performance, $F(1, 60)=52.07$, $p<.05$, $\eta_p^2=.47$. As expected, the functional evaluation of the non-affect-laden (high functionality) option was significantly higher than that of the affect-laden (low-functionality) option in both the easy-to-process condition ($M_{\text{non-affect-laden}}=1.92$ vs. $M_{\text{affect-laden}}=.83$), $t(60)=4.16$, $p<.05$, $\eta_p^2=.22$ and the difficult-to-process conditions ($M_{\text{non-affect-laden}}=1.68$ vs. $M_{\text{affect-laden}}=.05$), $t(60)=6.02$, $p<.05$, $\eta_p^2=.38$.

Procedure

Consumers who came out from two different IT malls were intercepted individually and asked for his or her willingness to participate in a short survey. At the beginning of the survey, participants were told that the aim of the survey was to understand how consumers choose between different options of electronics products. Next, they were asked to indicate their agreement to two general statements regarding the choice of home audio system—(a) a rational consumer should rely on feelings in making purchase decisions for a home audio system, and (b) a rational consumer should control his/her feelings in making purchase decisions for a home audio system (1=strongly agree to 7=strongly disagree). Presumably, consumers would like to act rationally in their decisions. If they believe a rational consumer should control instead of relying on feelings, they may have a tendency to act in accordance with this belief. So, responses to these two questions were used as a proxy of participants' inclination to suppress their feelings in the choice process. Participants then saw pictures of the two options, followed by their attribute descriptions. They were given sufficient time to go through the information. The order in which the two options were shown was counterbalanced. Participants then indicated their relative preference on a 12-point scale with a smaller number indicating a stronger preference for one option and a larger number indicating a stronger preference for the other option. They also indicated their agreement with the statements "I suppressed my feelings during the decision process" and "I find it easy to digest the product information on the two options" (1=strongly disagree to 7=strongly agree). Finally, they reported their age, gender, and income level, and were given a gold plated university-logo bookmark as a token for their participation.

Results

Independent measure and manipulation check

An index of feeling-suppression tendency was formed by subtracting each participant's response to the statement "a rational consumer should rely on feelings in making purchase decisions for a home audio system" from his/her response to the statement "a rational consumer should control his/her feelings in making purchase decisions for a home audio system". A median split was used to categorize participants into the high- and the low-suppression-tendency groups. To confirm the validity of this categorization, we conducted an ANOVA using participants' responses to the question "I suppressed my feelings during the decision process" as the dependent variable and the feeling-suppression tendency (high vs. low) and the processing difficulty manipulation (easy vs. difficult) as predictors. As expected, participants in the high-suppression-tendency group were more likely to suppress their feelings ($M=4.36$) than those in the low-suppression-tendency group ($M=3.62$), $F(1, 96)=3.81$, $p=.05$, $\eta_p^2=.04$. No effects other than this expected one were significant.

Next, to validate the manipulation of processing difficulty, we conducted an ANOVA using participants' responses to the question "I find it easy to digest the product information on the two options" as the dependent variable, and suppression tendency and processing difficulty as independent variables. As expected, participants who encountered easy-to-process functionality information found it easier to digest the information ($M=5.36$) than those who encountered difficult-to-process information ($M=4.72$), $F(1, 96)=5.02$, $p<.05$, $\eta_p^2=.05$. No other effects were significant.

Relative preference

Measurement of relative preference was recoded based on the presentation order, such that a larger number indicated a stronger preference for the affect-laden, low-functionality option and a smaller number indicated a stronger preference for non-affect-laden, high-functionality option. An ANOVA using feeling suppression and processing difficulty as between-subjects factors and relative preference as the dependent variable showed a significant two-way interaction, $F(1, 96)=5.96$, $p<.05$, $\eta_p^2=.06$. Next, planned comparisons were conducted to test our predictions. Since the basic premise of this research is to examine a paradoxical effect of feeling suppression by showing that consumers who tend to suppress their feelings become more likely to rely on their feelings in making choices than those who do not suppress, we compared the high- and the low-suppression-tendency groups within each of the easy- and difficult-to-process conditions². As predicted, when participants read about the easy-to-process set of product attributes, those who were inclined to suppress feelings

² In fact, because the functionality information differed across the easy-to-process and the difficult-to-process conditions, comparisons across these conditions within each of the high-suppression-tendency and low-suppression-tendency groups were technically unviable and difficult to interpret. Therefore, comparisons had to be conducted within each of the easy-to-process and difficult-to-process conditions.

would do so as intended and, therefore, would be less likely to rely on feelings than those who were inclined to use feelings ($M_{\text{high-tendency}}=4.16$ vs. $M_{\text{low-tendency}}=5.77$), $t(96)=1.72$, $p=.04$, one-tailed test, $\eta_p^2=.03$. Of central interest is the prediction that when the product attribute information was difficult to process, participants who had a high tendency to suppress their feelings (vs. those who had a low tendency) would paradoxically be more likely to rely on feelings in their decisions. Indeed, participants in the high-suppression-tendency group showed a stronger preference for the affect-laden option than those in the low-suppression-tendency group ($M_{\text{high-tendency}}=7.45$ vs. $M_{\text{low-tendency}}=5.88$), $t(96)=1.73$, $p=.04$, one-tailed test, $\eta_p^2=.03$.³

Discussion

In this experiment, we examined consumers' feeling-suppression tendency and how it would influence consumers' reliance on feelings in product decisions which involve easy- vs. difficult-to-process functionality information. The findings suggest that, instead of simply ignoring their feelings, consumers may suppress their feelings in an attempt to minimize the influence of feelings on their product decisions. Consistent with our expectation, feeling suppression does not necessarily reduce preferences for an affect-laden option as per consumers' intentions. In fact, consumers who tend to suppress their feelings, as compared with those who do not, may have a relatively stronger preference for an affect-laden option when the functionality information of the available options is difficult to process. This may be due to their incapability of forming reliable judgments based on the functionality information and, consequently, an enhanced reliance on feelings in their decision making.

This study provides initial evidence for the potential paradoxical effect feeling suppression may have on consumer preference and circumscribes the condition under which this is likely to happen. While contributing to demonstrating the phenomenon in a relatively natural setting, the internal validity of the field experiment may raise concerns. In the experiment, respondents' inclination to suppress their feelings was measured based on the extent to which they agreed that a rational consumer should control his/her feelings when making decisions for a home audio system. Respondents were then categorized into the "high-suppression-tendency" group and the "low-suppression-tendency" group based on their responses. But it was not entirely clear what sort of process participants engaged in when they suppressed or "non-suppressed" their feelings. To elaborate, consider the low-suppression-tendency group first. Although they tended to disagree that a rational consumer should control his/her feelings, the thought of "controlling one's feelings" was inevitably being activated by the statement. As previous research has shown that a mere

activation of a thought about suppression could influence suppression behaviors dramatically (e.g., Wegner, Schneider, Carter, & White, 1987), we are concerned about its potential impact on the low-suppression-tendency group's decision process, although findings for this group did not show a cognitive impairment effect. Similarly, for the high-suppression-tendency group, it was not very clear whether the suppression process they engaged in was the same as the one presumed in our conceptual framework. We addressed this concern in Experiment 2 by employing an experimental manipulation of suppression.

Experiment 2

In experiment 2, both feeling suppression and processing difficulty were experimentally manipulated. Moreover, we adopted a different manipulation of processing difficulty which kept the number and the content of product attributes constant across conditions but varied the presentation format of the information. This served as a conceptual replication of processing difficulty to provide convergent evidence for our hypothesis.

The experiment had a 2 (manipulation of feeling suppression: manipulated vs. not manipulated) \times 2 (processing difficulty: easy vs. difficult) between-subjects design with a similar choice set configuration and procedure as employed in Experiment 1. One hundred and fifty-two undergraduate students participated in the experiment in exchange for course credit.

Stimulus development

Two pictures of DVD players underwent a pretest similar to the one reported in the field experiment. Responses from 30 participants suggested that two designs were appropriate for representing affect-laden ($M=5.13$) and non-affect-laden designs ($M=4.06$), $t(29)=6.75$, $p<.05$, $\eta_p^2=.61$, respectively. The functional descriptions (e.g., about video features, compatible formats) of the two options contained four common attributes and four differing ones, regardless of processing difficulty level. Pretesting with 32 participants showed that the functional performance evaluation of the non-affect-laden (high functionality) option ($M=3.28$) was significantly higher than that of the affect-laden (low-functionality) option ($M=1.83$), $t(31)=8.47$, $p<.05$, $\eta_p^2=.70$.

Manipulation of processing difficulty

The same attributes were used for the easy-to-process and the difficult-to-process conditions, yet they were presented in a different format for the purpose of processing difficulty manipulation (Novemsky, Dhar, Simonson, & Schwarz, 2004; Stewart & Furse, 1985). In the easy-to-process condition, the attributes were aligned, presented with black "Arial" font, and bulleted. In the difficult-to-process condition, the attributes were unaligned, presented with grey "Lucida Console" font, and summarized in a single paragraph, therefore demanding more effort to comprehend and align the attributes. This manipulation

³ A linear regression analysis with suppression-tendency (as a continuous variable), processing difficulty, and their interaction regressed on relative preference yielded a similar result. The interaction effect was significant, $t(96)=2.26$, $p<.05$. Moreover, the predicted paradoxical effect was also statistically significant, $t(96)=-2.04$, $p<.05$.

varied processing difficulty while keeping the content of the attributes constant. Thus, any difference in consumer choice across the two processing difficulty conditions could be unambiguously attributed to the difference in processing difficulty, rather than any idiosyncratic influence of attribute information.

Procedure

Participants were instructed to imagine they were going to purchase a DVD player and were faced with two options. They were also told they would first see pictures of the two options, followed by attribute descriptions. Next, they read instructions for manipulating suppression. In the suppression condition, they were instructed to try their best not to have any feelings (i.e., suppress their feelings) toward the appearance of the options (adapted from Richards & Gross, 2000; Wegner et al., 1993). In the non-suppression condition, they responded to the appearance of the options as they normally would (in other words, feeling suppression was not even mentioned and thus the thought was not activated by the instruction). Thereafter, participants saw the picture of each option one at a time for 10 s each, and then the attributes of each option for 60 s each. Pretesting showed the time duration was adequate for them to finish elaboration. The order in which the two options were shown was counterbalanced. Participants then indicated their choice as well as their relative preference. For manipulation checks, they indicated their agreement with the statements “I worked at controlling my feelings toward the pictures of the options” and “I found it effortful to evaluate the attributes of the options” (1=strongly disagree to 7=strongly agree). Finally, they reported their familiarity with the product category (1=not at all to 7=very much).

Results

The manipulations were successful. ANOVAs with suppression manipulation and processing difficulty as predictors of the manipulation check questions respectively revealed only a main effect of suppression manipulation on participants’ effort at controlling their feelings ($M_{\text{suppression}}=5.13$ vs. $M_{\text{non-suppression}}=4.05$), $F(1, 148)=19.22$, $p<.05$, $\eta_p^2=.12$, and only a main effect of processing difficulty on participants’ perceived effort toward evaluating the product attributes ($M_{\text{difficult}}=4.46$ vs. $M_{\text{easy}}=3.88$), $F(1, 148)=5.58$, $p<.05$, $\eta_p^2=.04$.

A logistic regression with suppression manipulation and processing difficulty as predictors and familiarity with product category as a covariate (whether this covariate was included or not did not have a significant influence on the results) was conducted on choice. As expected, the two-way interaction between suppression manipulation and processing difficulty was significant, $\chi^2(1)=8.63$, $p<.05$. The results are summarized in Table 1.

As predicted, when the product functionality information was easy to process, participants who were instructed to suppress their feelings (vs. those who were not) were less likely to choose the affect-laden, low-functionality option (8.11% vs.

Table 1
Results of Experiment 2.

	Choice share of the affect-laden (low-functionality) option		Relative preference	
	Easy to process	Difficult to process	Easy to process	Difficult to process
Suppression manipulated	8.11% (<i>n</i> =37)	43.59% (<i>n</i> =39)	3.84	6.05
Suppression not manipulated	32.43% (<i>n</i> =37)	25.64% (<i>n</i> =39)	5.38	4.59

Note: relative preference was measured on a 12-point scale with a larger number indicating a stronger preference for the affect-laden option.

32.43%), $z=2.73$, $p<.05$. However, a reversed pattern was observed when the processing of functionality information was made difficult. Participants who were instructed to suppress their feelings became more likely to choose the affect-laden, low-functionality option than their non-suppression counterpart (43.59% vs. 25.64%), $z=1.69$, $p<.05$, one-tailed test.

Findings on relative preference were consistent with the choice data. An ANOVA with suppression manipulation and processing difficulty as independent variables, familiarity with DVD players as a covariate (the inclusion or exclusion of this covariate did not influence the pattern of findings) produced the expected interaction between suppression manipulation and processing difficulty, $F(1, 147)=11.90$, $p<.05$, $\eta_p^2=.08$. As predicted, when functionality information was easy to process, participants who were instructed to suppress their feelings showed a weaker preference for the affect-laden option ($M=3.84$) than those who were not ($M=5.38$, larger numbers indicate a stronger preference for the affect-laden option), $t(147)=2.53$, $p<.05$, $\eta_p^2=.04$. However, when functionality information was difficult to process, participants who were instructed to suppress their feelings showed a stronger preference for the affect-laden option ($M=6.05$) than those who were not ($M=4.59$), $t(147)=2.34$, $p<.05$, $\eta_p^2=.04$.

Discussion

In this experiment, we manipulated feeling suppression and obtained evidence that converges with those from the field experiment where feeling-suppression inclination was operationalized in a more subtle, less intrusive manner. Moreover, we adopted a different manipulation of processing difficulty level via presentation format, which allows us to isolate the effect of difficulty level from that of the content of product attributes. In sum, the multiple methods used in Experiments 1 and 2 offer a strong test of our hypothesis and the method-invariant findings suggest that feeling suppression (vs. non-suppression) would lead to a lesser reliance on feelings only when the product functionality information is easy to process. When the product functionality information is difficult to process, feeling suppression (vs. non-suppression) would actually lead to a greater reliance on feelings as a basis for choice.

Two issues underlying the interpretation of our findings warrant further discussion. First, previous research has shown

that attempts to suppress a particular thought can result in a rebound effect—a preoccupation with the suppressed thought—because the act of conscious suppression lead people to hold the thought in consciousness (e.g., Wegner et al., 1987). It might be possible that our findings demonstrate a rebound effect in the context of emotion suppression—experiencing intensified feelings as a result of suppression. However, a rebound effect is presumably independent of the resource requisite of self-regulation. If so, all participants in the suppression conditions should have relied on their feeling to a similar extent, regardless of whether they read the easy-to-process or the difficult-to-process information. This was, however, not the case. Thus, the rebound effect explanation does not account for the overall pattern of our findings. Nevertheless, in light of the fact that the resource requisite of feeling suppression is an indispensable part of our framework, we would provide direct evidence in support of this claim in Experiments 3a and 3b.

The second issue involves the nature of the impairment process underlying the paradoxical effect in resource-deficient situation. Specifically, given that both feeling suppression and the processing of functional attributes compete for the same pool of resources, it is possible for the former to impair the latter, or the other way around. To this end, in Experiment 4, we would provide evidence that the paradoxical effect found in Experiments 1 and 2 is unlikely to be observed when processing functionality information competes resources away from feeling suppression.

Experiments 3a and 3b

The purpose of Experiments 3a and 3b was to provide direct evidence that consumers' suppression of their feelings toward affect-laden products demands attentional as well as regulatory resources and, therefore, the effectiveness of feeling suppression depends on the availability of these resources. Moreover, we aimed to show that suppressing feelings toward the affective aspect of a product is unlikely to result in a rebound effect, regardless of resource availability. To do so, we manipulated the level of attentional resources available for feeling suppression in Experiment 3a and the level of regulatory resources in Experiment 3b. We then showed participants an affect-laden product and examined the effectiveness of feeling suppression by measuring participants' feelings elicited by the product. If feeling suppression is a resource-demanding task, it would be more successful when participants had higher attentional (or regulatory) resources. We also examined participants' feelings toward a "non-affect-laden" product as a baseline condition. Since a non-affect-laden product is unlikely to elicit affective reactions, we expected participants to experience low levels of positive feelings regardless of the availability of resources and the presence of feeling suppression.

Both experiments employed the same set of stimuli—two clock designs representing affect-laden and non-affect-laden products respectively. The two designs were selected based on a pretest with 30 student participants who saw each design and subsequently rated the extent to which they felt pleased, delighted, amused, and joyful (1 = not at all to 5 = very much;

adapted from Holbrook & Batra, 1987; Richins, 1997). Their responses were averaged to form indices of positive feelings (Cronbach's $\alpha = .86$ and $.81$ for the affect-laden and non-affect-laden designs, respectively). The affect-laden design we chose elicited significantly greater positive feelings ($M = 3.55$) than did the non-affect-laden design ($M = 1.92$), $t(29) = 12.25$, $p < .05$, $\eta_p^2 = .84$.

Experiment 3a

Seventy-seven undergraduate students participated in the experiment, which had a 2 (attentional resource level: low vs. high) \times 2 (manipulation of feeling suppression: manipulated vs. not manipulated) \times 2 (affective property of products: affect-laden vs. non-affect-laden) mixed-factorial design. The affective property of products was manipulated within-subjects.

Procedure

Participants were told that the objective of the study was to examine consumers' responses toward product designs under various situations. Similar to Experiment 1, the suppression manipulation (via instruction) was embedded in the introduction to the product evaluation study. After participants read the introduction, the attentional resource-level manipulation was administered under the pretense of a study from the university hospital to understand how people's academic background shapes their memorizing ability. The study required participants to memorize a number and recall it at the end of the experiment session (a procedure similar to that employed in Shiv & Fedorikhin, 1999). Participants in the high attentional resources condition memorized a two-digit number, whereas those in the low attentional resources condition memorized a seven-digit number. This manipulation was given after the suppression instruction had been presented to ensure participants had sufficient resources to comprehend the instruction for feeling suppression. After memorizing the number, participants were asked to read the introduction to the product evaluation study again. Thereafter, they saw a picture of a clock for 10 s (as determined by a pretest to be sufficient for evaluation without causing boredom) and then indicated the extent to which they felt pleased, delighted, amused, and joyful when they saw the clock (1 = not at all to 5 = very much). Next, they repeated the same procedure for the second clock. The order in which the two clocks were presented was counterbalanced. Thereafter, the participants answered a manipulation check question—"I worked at controlling my emotions when viewing the clock" (1 = not at all to 5 = very much). Finally, their mood was measured using the PANAS scale (Watson, Clark, & Tellegen, 1988). This measure served to check for the potential confounding effect of mood on reported feelings, which may arise from the suppression or resource-level manipulations.

Results

For a successful manipulation of resource level, participants should be able to recall the number at the end of the experiment. When this happened, their attentional resources should have been partially allocated to rehearsing the number during product

evaluation. Responses from two participants were discarded because of their failure to recall the correct (seven-digit) number, resulting in a sample size of 75. Next, an ANOVA using suppression manipulation and resource level as predictors was conducted on the suppression manipulation check question. Only the main effect of suppression was significant, $F(1, 71)=37.09, p<.05, \eta_p^2=.34$. Participants in the suppression condition indicated exerting a greater effort at controlling their feelings ($M=3.44$) than those in the non-suppression condition ($M=1.90$).

An ANOVA using suppression manipulation and resource level as between-subjects factors and feelings toward the two designs as a repeated measure showed a significant three-way interaction, $F(1, 71)=4.63, p<.05, \eta_p^2=.06$. The results are presented in Table 2a. Interaction contrasts showed that all effects involving feelings toward the non-affect-laden design were not significant (M 's range from 1.85 to 1.96), F 's < 1. This was consistent with our expectation because the intended elicited feelings were low in the first place.

Regarding the affect-laden design, to examine the effectiveness of feeling suppression, we compared the suppression condition with the non-suppression baseline, and evaluated whether participants who received the instruction to suppress feelings indeed experienced a lower level of positive feelings than those who did not. Planned comparisons showed that, participants who received the instruction to suppress their feelings reduced their feelings more effectively when they had high attentional resources ($M_{\text{suppression}}=2.09$ vs. $M_{\text{non-suppression}}=3.33$; $\text{diff}=-1.24$), $t(71)=4.97, p<.05, \eta_p^2=.26$ than when they had low attentional resources ($M_{\text{suppression}}=2.96$ vs. $M_{\text{non-suppression}}=3.39$; $\text{diff}=-.43$), $t(71)=1.70, p>.05$. Moreover, participants who suppressed their feelings experienced a lower level of positive feelings when they had high resources than when they had low resources (2.09 vs. 2.96), $t(71)=3.83, p<.05, \eta_p^2=.17$. The interaction implied by these

comparisons was significant, $F(1, 71)=6.57, p<.05, \eta_p^2=.07$. Consistent with our expectation, the effectiveness of feeling suppression is dependent on the availability of attentional resources.

Next, to show that the availability of attentional resources itself did not affect participants' feelings, we considered the non-suppression baseline conditions. Findings showed that these participants experienced similar levels of positive feelings regardless of the level of attentional resources ($M_{\text{high-resources}}=3.33$ and $M_{\text{low-resources}}=3.39$), $t<1$.

Recall that mood was also measured for the purpose of examining whether the suppression or resource-level manipulations influenced participants' mood. The average of each participant's responses to the 10 positive affect items was subtracted from the average of his or her responses to the 10 negative affect items to form a mood index. An ANOVA with suppression manipulation and resource level as predictors of mood did not reveal any significant effects, F 's < 1, suggesting that participants' incidental mood did not account for our findings.

Experiment 3b

Seventy-two undergraduate students participated in this experiment which had essentially the same design as Experiment 3a, except that the level of regulatory resources instead of the level of attentional resources was manipulated.

Procedure

Participants completed two ostensibly unrelated tasks—the first involved the manipulation of regulatory resource level, and the second was similar to the product evaluation task in Experiment 3a. The manipulation of regulatory resource level was designed on the premise that tasks associated with guiding and controlling responses would deplete regulatory resources which cannot be refilled immediately after usage (Baumeister, 2002). We used a procedure involving complex calculation of numbers which required participants to select and apply the appropriate arithmetic rules. Such cognitive operations demand active planning, guiding, and correcting of responses, which would deplete the finite pool of regulatory resources that may be needed in the subsequent task (see Vohs & Faber, 2007 for similar manipulations). Specifically, participants were told that the study was from the university hospital to understand how people's academic background influences their processing of numbers. They read that they would see a number on the next page and need to take some time to memorize the number. After that, they would be asked to do some calculations based on the number they had memorized. As an example, they read that if the number they memorize is 123, they may then be asked to add the first two digits with the third digit, and the answer they give should be $12+3=15$. In the low regulatory resources condition (meaning high regulatory resources were depleted in this number processing task and thus low regulatory resources were available for the subsequent product evaluation task), the procedure was repeated for five different numbers ranging from three digits to seven digits and the calculations included addition,

Table 2
Results of Experiments 3a and 3b.

	Feelings toward the affect-laden design		Feelings toward the non-affect-laden design	
	High resources	Low resources	High resources	Low resources
<i>a. Results of Experiment 3a—feelings toward affect-laden and non-affect-laden products as a function of suppression manipulation and attentional-resource level</i>				
Suppression manipulated	2.09	2.96	1.96	1.85
Suppression not manipulated	3.33	3.39	1.89	1.93
Mean difference	-1.24	-0.43	0.07	-0.08
<i>b. Results of Experiment 3b—feelings toward affect-laden and non-affect-laden products as a function of suppression manipulation and regulatory-resource level</i>				
Suppression manipulated	3.30	3.88	2.71	2.54
Suppression not manipulated	3.88	3.84	2.50	2.78
Mean difference	-0.58	0.04	0.21	-0.24

multiplication, and subtraction. In the high regulatory resources condition, the procedure was repeated for three three-digit numbers involving simple addition and subtraction. After completing this task, participants filled the PANAS questionnaire, and then proceeded to the product evaluation task. Finally, as a manipulation check for the regulatory resource level, participants completed a follow-up questionnaire where they rated the number processing task in terms of (a) how difficult it was (1 = not at all to 10 = very difficult), (b) how effortful it was (1 = not at all to 10 = very effortful), and (c) how tired they felt after performing the task (1 = not at all to 10 = very tired).

Results

The three manipulation check items on regulatory resource level were averaged to form an index (Cronbach's $\alpha = .93$). A lower index indicated that fewer resources were consumed by the number processing task, or conversely, more regulatory resources were left for the subsequent product evaluation task. An ANOVA involving resource level and suppression manipulation as predictors of the index revealed only a main effect of resource level ($M_{\text{low-resources}} = 4.68$ vs. $M_{\text{high-resources}} = 2.24$; a smaller number indicates a higher level of available resources), $F(1, 68) = 17.68, p < .05, \eta_p^2 = .21$, confirming the effectiveness of the resource-level manipulation. Next, an ANOVA with suppression manipulation and resource level as predictors of the suppression manipulation check revealed only a main effect of suppression manipulation as well ($M_{\text{suppression}} = 3.19$ vs. $M_{\text{non-suppression}} = 2.31$), $F(1, 68) = 13.37, p < .05, \eta_p^2 = .16$.

Indices of positive feelings were created by averaging the four feeling items (Cronbach's $\alpha = .84$ for the affect-laden design and $.81$ for the non-affect-laden design). An ANOVA involving suppression manipulation and resource level as between-subjects factors and the feeling indices for the two clock designs treated as a repeated measure revealed a significant three-way interaction effect, $F(1, 68) = 6.03, p < .05, \eta_p^2 = .08$. The results are presented in Table 2b. Regarding the affect-laden design, participants who were instructed to suppress their feelings reduced their feelings toward the design more effectively when they had high regulatory resources ($M_{\text{suppression}} = 3.30$ vs. $M_{\text{non-suppression}} = 3.88$; $\text{diff} = -.58$), $t(68) = 2.46, p < .05, \eta_p^2 = .08$ than when they had low resources ($M_{\text{suppression}} = 3.88$ vs. $M_{\text{non-suppression}} = 3.84$; $\text{diff} = .04$), $t < 1$. Moreover, participants who suppressed their feelings experienced a lower level of feelings when they had high resources than when they had low resources (3.30 vs. 3.88), $t(68) = 2.46, p < .05, \eta_p^2 = .08$. The interaction implied by these comparisons was significant, $F(1, 68) = 4.00, p < .05, \eta_p^2 = .06$. Besides, findings on feelings toward the non-affect-laden design and mood did not differ as a function of resource level or suppression manipulation, F 's < 1 .

Discussion

The findings of Experiments 3a and 3b provide empirical evidence that the effectiveness of suppressing positive feelings toward products is sensitive to the availability of attentional and regulatory resources. When consumers aim to suppress their

feelings, they would be successful in doing so only when they have sufficient resources to keep the goal of suppression active and engage in the self-monitoring and adjusting loop of suppression constantly. Although a similar argument has been made in the previous research, obtaining empirical evidence in the specific domain of interest in the present research is critical for our interpretation of Experiments 1 and 2—that is, suppressing product-elicited feelings may require resources that could otherwise be used to process functionality information. Moreover, the findings suggest that a feeling rebound effect is unlikely to occur during the process of product evaluation. Regardless of resource availability, participants did not experience stronger feelings as a result of suppression than non-suppression. Therefore, it is unlikely that the paradoxical effect we found in Experiments 1 and 2 is simply because of a feeling rebound effect under resource-deficiency.

Experiment 4

The purpose of Experiment 4 was to further resolve the ambiguity concerning when and why the paradoxical effect occurs. To reiterate, the paradoxical effect refers to the findings that consumers who intend to avoid being influenced by their feelings via suppression end up being more likely to rely on their feelings as the primary basis for decisions than those who do not intend to suppress their feelings. We assume that this occurs because feeling suppression takes resources away from the processing of functionality information, but it might also be possible that the processing of functionality information takes resources away from an effective suppression of feelings so that these feelings become the basis for decisions. To the extent that both feeling suppression and the processing of functionality information are cognitive and regulatory activities carried out in the course of the decision process, it is conceivable that any one of these activities can take resources away from the other activity. However, we attempt to specify a more refined process underlying the paradoxical effect. We suggest that for the paradoxical effect to be observed, consumers' processing of functionality information should be interfered such that feelings become the primary basis for decisions. If, on the other hand, functionality information is processed prior to feeling suppression (to such an extent that it takes resources away from feeling suppression), functionality attributes should provide an alternative basis for judgment, and ineffective feeling suppression should not lead to a paradoxically greater reliance on feelings. Therefore, for the paradoxical effect to occur, it is essential for feeling suppression to take resources away from the processing of functionality information, regardless of whether functionality processing impairs the effectiveness of feeling suppression or not.

To test this, we focused only on the difficult-to-process functional attributes which demand high resources, and manipulated the presentation sequence of affective and functional information in Experiment 4. When affective information (the affect-eliciting picture) is presented first, we expect to observe a similar paradoxical effect as observed in Experiments 1 and 2. In contrast, when functionality information is presented

first, this condition illustrates what may happen if assessment of functionality information takes resources away from feeling suppression. We predict that, to the extent that participants had already assessed functionality information, they can use functionality information as a basis of judgment regardless of the outcome of feeling suppression. In other words, even if participants failed to suppress their feelings, they would not have to rely primarily on their feelings in their decisions.

The experiment had a 2 (manipulation of feeling suppression: manipulated vs. not manipulated) \times 2 (sequence of product information: functions-before-aesthetics vs. aesthetics-before-functions) between-subjects design. One hundred and fifty-three undergraduate students participated in the experiment in exchange for course credit.

Procedure

Same as in Experiment 1, we let participants compare between an affectively superior option and a functionally superior option of home audio system. All participants saw the difficult-to-process functional attributes (nine attributes for each option). They were randomly assigned to one of the four between-subjects conditions. In the functions-before-aesthetics condition, participants saw the attribute description of each option one at a time for 60 s each, and then the picture of each option for 10 s each. In the aesthetics-before-functions condition, participants saw the picture of each option one at a time for 10 s each, and then the attribute description of each option for 60 s each. The order in which the two options were presented was counterbalanced. Thereafter, participants indicated their relative preference for the two options and answered the manipulation check question for feeling suppression.

Results

The manipulation of feeling suppression was successful. Participants in the suppression condition indicated exerting a greater effort at controlling feelings than those in the non-suppression condition (4.97 vs. 4.07), $F(1, 149)=19.01$, $p<.05$, $\eta_p^2=.11$. The effect of suppression manipulation did not interact with the sequence of product information.

Next, an ANOVA with manipulation of feeling suppression and sequence of product information as the independent variables and relative preference as the dependent variable revealed a significant two-way interaction, $F(1, 149)=4.50$, $p<.05$, $\eta_p^2=.03$. Consistent with our previous findings, seeing product pictures before functionality information lead to a paradoxical effect—participants in the suppression condition showed a stronger preference for the affect-laden, low-functionality option than those in the non-suppression condition ($M_{\text{suppression}}=5.25$ vs. $M_{\text{non-suppression}}=4.29$), $t(149)=1.96$, $p=.05$, $\eta_p^2=.03$. However, as we expected, when participants saw the functionality information before pictures, the paradoxical effect disappeared. Participants in suppression condition even showed a directionally weaker preference for the affect-laden option than those in the non-suppression condition

($M_{\text{suppression}}=4.00$ vs. $M_{\text{non-suppression}}=4.53$), $t(149)=1.05$, $p=.30$.

Discussion

In Experiments 1 and 2, we demonstrate that when product functionality information is difficult to process, consumers who attempt to suppress their feelings (vs. those who do not) may be more likely to rely on their feelings in their choices. We suggest that this is the result of consumers' inability to assess product functionality when feeling suppression competes for and depletes the same pool of limited resources. In Experiment 4, we provide further supporting evidence for this account. Preference toward the affect-laden option was found when feeling suppression was likely to have occurred before functionality processing but not after. In sum, findings of this experiment, together with those of Experiments 3a and 3b, further validate the functionality-processing impairment process underlying the paradoxical choice effect of feeling suppression.

General discussion

Consumers may be spontaneously tempted by the attractive looks of products in the marketplace. At the same time, they may wish to minimize the initial influence of feelings via suppression and attend to product functionality carefully. Whether they would be able to make affect-free choices via suppression, however, is questionable. In this research, we develop a theoretical framework to examine the process of feeling suppression as well as its impact on product judgment and choice. The framework receives convergent support from a series of experiments. Experiment 1 provides a marketplace demonstration that, rather than simply ignoring feelings, there are consumers who incline to suppress their feelings in their decision processes and, moreover, the suppression attempt may enhance reliance on feelings when functionality information is difficult to process. Following the encouraging field-findings, Experiment 2 provides further confirmatory evidence for our prediction under lab setting. Next, Experiments 3a and 3b validate our assumption concerning the requisite regulatory and attentional resources for feeling suppression and, at the same time, discount the applicability of an emotional rebound explanation for the paradoxical effect we found. Finally, Experiment 4 ascertains that the occurrence of the paradoxical effect necessarily entails the adverse impact of feeling suppression on functionality judgment. Altogether, these findings suggest that feeling suppression (vs. non-suppression) may impair resources and hence undermine resource-demanding product performance judgment, which then leads to a greater reliance on feelings. Contrary to the popular belief that one can make rational judgments by suppressing feelings, the potential inconsistency between intention (suppressing feelings) and behavioral outcome (more likely to rely on feelings) that is uncovered here seems to qualify the rationality belief that people may hold (see [Hastie, 2001](#) for a discussion of the concept of rationality).

Contribution

Our research contributes to the affect literature by specifying an important mechanism underlying the non-use of feelings. Extant literature on the role of feelings in consumer judgment has mainly focused on the mechanism underlying the use of feelings in making judgment. For example, research shows that consumers use feelings when they employ hedonic criteria as a basis for judgment (Adaval, 2001; Pham, 1998), and that sometimes they make unintended feeling-based choices because they fail to curb their feelings toward products (Weinberg & Gottwald, 1982) or because they are unable to generate negative cognitions against positive feelings (Shiv & Fedorikhin, 1999). In our research, we examine the process underlying feeling suppression and demonstrate that consumer's attempt toward making an "affect-free" choice, even if it is deliberate, may have a negative impact on consumer functionality judgment and may eventually lead to a reliance on feelings. This spillover externality highlights that while it is important to "zoom in" and examine the feeling-specific mechanism in consumer judgment (e.g., Adaval, 2001; Pham, 1998; Yeung & Wyer, 2004), it is also important to take other aspects of the decision making process (e.g., the cognitive processing of product attribute information) into consideration, and examine the aggregate outcome they produce in combination.

Along this line, we show that the combinatory effect is an intertwined one in which our knowledge about the interaction between the cognitive and affective system is further enhanced, specifically with regard to the cognitive consequence of affect regulation. Recall that we posed a practical question in the introduction: who—consumers who suppress their feelings vs. those who do not—would be more likely to make a decision based on the careful assessment of product functions? Existing research on the resource expenditure framework only gives us a partial answer to this question. That is, while this stream of research suggests that feeling suppression may deplete resources and consequently impair performance in other activities that require resource-demanding cognitive operations (e.g., Schmeichel et al., 2003; Vohs et al., 2005), it does not specify precisely the judgmental consequence of suppression in product decisions (e.g., would people simply skip the processing of product information? would they also turn back to their feelings?) and the consequence of suppression as compared with other choice strategy (e.g., non-suppression). These considerations reflect a more general concern about the specificity in depletion theory and a call for research that goes beyond the resource expenditure model and examines its judgmental consequence (Johnson, 2008; see also Baumeister, 2008; Baumeister, Sparks, Stillman, & Vohs, 2008; Hofmann, Strack, & Deutsch, 2008; Mick, 2008; Wertenbroch, Vosgerau, & Bruyneel, 2008 for other commentaries on this area of research).

A similar issue surrounding the specificity of depletion research concerns whether our findings are specific to feeling suppression—that is, will the act of suppressing any type of response has the same effect on consumer choice as feeling suppression does? It is of course conceivable that other types of self-regulatory behaviors may also deplete resources and hence impair cognitive capacity. However, our findings suggest that

the specific effect from feeling suppression goes beyond cognitive-judgment consequences. The suppression of feelings, in particular, can influence both consumers' feelings toward products and judgments of product functionality. This double-effect then results in the different relative reliance on feelings and functionality judgments in product choices under different processing difficulty conditions.

Limitation and future research

One boundary condition to the effect of suppression on consumer judgment is that the findings of this research are unlikely to be applicable to highly deliberated choices where consumers may collect and process product information over a long period of time. This is because the depleted resources due to suppression can be replenished over time (Muraven & Baumeister, 2000). Hence, the further the separation between feeling suppression and functional-attribute processing, the more resources should be available for consumers to assess product functional performance and use the performance judgment as a basis for their choices.

Future research may extend this research in several ways. First, research is needed to further reveal the mechanism underlying the choice share shift due to suppression, as found in Experiments 1 and 2. In particular, when consumers suppress their feelings under resource-demanding choice task and eventually exhibit a feeling-based choice, how are the feeling inputs constructed? Tentatively, it is possible that participants may have assembled mental images of the options in their minds and eventually used their feelings toward these mental images to make choices when their ability to judge product functionality was impaired. Another possibility is that participants who suppressed their feelings may have experienced feelings toward the affect-laden option in a relatively automatic fashion (e.g., feelings generated from lower-order processes) which was not inhibited entirely. Thus, they may still have experienced somewhat greater positive feelings toward the affect-laden option than the non-affect-laden one, which led to a choice of the affect-laden option when they were incapable of functionality judgment.

Second, the applicability of our conceptualization toward negative feelings may worth further investigation. It seems likely that the suppression process, regardless of the valence of feelings, is resource depleting, and may potentially impair the other judgments people wish to form in the decision process. More recently, marketing researchers have turned to consumers' evaluations of disgusting products (Morales & Fitzsimons, 2007). Disgusting products are products that possess offensive properties, and it is possible that the suppression of disgusting and offensive feelings entails reactions that are distinct from the suppression of positive feelings (e.g., negative reactions may be more difficult to overcome than positive ones). Thus, future research can examine how the framework presented in the present research may be extended to the understanding of the purchase of disgusting products. In a related vein, future research can also examine the role of suppression in the purchase of products that are bought to prevent embarrassment (e.g., gas prevention aids, disposable absorbent underpants; Lau-Gesk & Drolet, 2008) as

these products themselves are often embarrassing to buy and thus require consumers' regulation of emotions during purchase.

Third, future research may examine whether individual differences in affect regulatory style would influence the cognitive consequences of suppression. As self-regulation may become more automatic and regulatory capability may be strengthened with practice (Muraven & Baumeister, 2000), consumers who have a higher chronic tendency to suppress their feelings may either be more effective in suppressing their feelings given a certain resource input-level and/or experience less impairment of cognitive functioning due to feeling suppression. An investigation in this aspect may give insights to the potential malleable nature of consumer's resource allotment in mixed affective and cognitive decision tasks and its judgment consequence.

Concluding remarks

Although past research and discussion on the topic of feeling and judgment suggests a traditionally-held association of feeling with irrationality (see Cacioppo & Gardner, 1999 for a review), more recent research shows that feelings may serve as valuable, informational input for judgment (Pham, 1998, 2004). Our research, in a related vein, demonstrates that the suppression of feelings may also yield its input for consumer judgment. In particular, it may impair functionality judgment and heighten the reliance on feelings in consumer choice—a double-edged sword indeed.

Appendix. Sample product functional attributes (Experiment 1)

Easy to process condition	
Low functionality option	High functionality option
- Single-disc CD player	- Single-disc CD player
- Audio features: support standard CD and Dolby digital codec	- Audio features: support CD, DVD-audio, and Dolby digital codec
- FM radio tuner: works well in good reception conditions but may have a slight lack of clarity in less good conditions	- FM radio tuner: suited to both good and less good reception conditions
- Stereo speakers	- Stereo speakers
- CD recorder: support CD-R/-RW	- Stereo amplifier: create smooth sounding and excellent bass
- Two-year warranty	- Two-year warranty
Difficult to process condition	
Low functionality option	High functionality option
- Single-disc CD player	- Three-disc CD player
- Audio features: support standard CD and Dolby digital codec	- Audio features: support CD, DVD-audio, and Dolby digital codec
- AM and FM radio tuner: works well in good reception conditions but may have a slight lack of clarity in less good conditions	- FM radio tuner: suited to both good and less good reception conditions
- Stereo speakers	- Stereo speakers
- CD recorder: support CD-R/-RW	- Stereo amplifier: create smooth sounding and excellent bass
- With headphone socket	- With headphone socket
- Limited edition	- Free headphone
- With remote control	- With remote control
- Two-year warranty	- Two-year warranty

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