

Lay Theories of Emotion Transience and the Search for Happiness: A Fresh Perspective on Affect Regulation

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Across six studies, we demonstrate that consumers have beliefs pertaining to the transience of emotion, which, along with their current feelings, determine the extent to which they regulate their immediate affect. If consumers believe that emotion is fleeting, those feeling happy (vs. unhappy) engage in affect regulation because they infer that they need to take actions to maintain their positive feelings. In contrast, if consumers believe that emotion is lasting, those feeling unhappy (vs. happy) engage in affect regulation because they infer that the negative feelings will persist unless they take actions to repair them. These effects are obtained with measured and with manipulated beliefs, and they occur only when the theories pertain specifically to emotion. Implications and areas for future research are discussed.

Who is more likely to indulge in order to feel good in the moment even though exerting restraint is beneficial for the long term—a happy person or someone who is unhappy? For example, are happy or unhappy dieters more likely to regulate their immediate affect by indulging and eating rich caramel chocolate rather than exerting restraint and choosing a healthy apple? Are happy or unhappy students more likely to regulate their affect by indulging, perhaps partying with friends, rather than exerting restraint and studying for an upcoming final? Over the course of their lifetimes, most consumers pursue their long-term interests to improve their lives, be healthy, succeed professionally, and grow into kinder and nobler individuals—for example, by being more charitable. However, in the moment, most consumers also are tempted to regulate their immediate feelings, to eat foods that are tasty but unhealthy, to relax rather

than agonize about their everyday professional endeavors, and to avoid exposing themselves to useful but negative information that will help them become better people. Thus, some of life's most fundamental choices involve balancing immediate feelings and long-term interests.

In the present research, we argue that people strategically manage their actions both to accomplish their long-term interests and to attain immediate pleasures. If they believe they need to take actions to regulate their immediate feelings, they tend to indulge in immediate pleasures. In contrast, if they believe such actions are not required, they act in their long-term interests. The choice of actions between indulging to feel good or acting in one's long-term interest is determined interactively by people's current feelings and their chronic or situationally activated lay theories about the transience of emotion.

In particular, we propose that people who feel good rather than bad are more likely to indulge if they believe that emotion is fleeting. This is because people who feel good infer that unless they take actions to feel better, their positive feelings will pass, whereas people who feel bad infer that actions to feel better are unnecessary because the negative feelings will pass on their own. In contrast, people who feel bad rather than good are more likely to indulge if they believe that emotion is lasting. This is because people who feel bad infer that unless they take actions to feel better, the negative feelings will persist, but people who feel good infer that they can act in their long-term interests because actions to preserve their mood are unnecessary. Our focus is on situations when people face choices in which mood im-

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provement is always possible but comes at the cost of long-term interests. In such situations, we argue that people's inference regarding whether their mood—positive or negative—left to itself, will improve, determines whether or not they engage in activities to improve their mood.

By introducing a new construct pertaining to lay theories about the transience of emotion, and by demonstrating that people systematically differ in those beliefs, we make an important contribution to existing research investigating other ways in which mood influences affect regulation (Andrade 2005; Andrade and Cohen 2007; Fishbach and Labroo 2007; Raghunathan and Trope 2002; Shen and Wyer 2008). We show that such beliefs moderate the effect of people's current feelings on a choice between accomplishing long-term interests and engaging in immediate affect regulation, and systematically determine which of these actions people take. In what follows, we first discuss the affect-regulation literature and then explain why considering the role of emotion-transience theories provides important insight into understanding the effects of mood on affect regulation. We then present six studies in support of our hypotheses.

THEORETICAL DEVELOPMENT

How Mood Influences Affect Regulation: Existing Findings

Some studies suggest that a positive (vs. a negative) mood will result in increased actions to regulate one's immediate affect. For example, happy (vs. neutral) mood participants are less willing to help a stranger (Isen and Simmonds 1978) or take on a gamble (Isen and Geva 1987) when those activities could result in their losing their positive feelings. To such people, immediate affect regulation is a priority because losing their momentary happiness could make them feel worse than not feeling happy in the first place (mood-maintenance theories; e.g., Isen and Means 1983). However, other research suggests that people who feel upset (vs. happy) are more likely to regulate immediate affect in an attempt to feel better (mood-repair theories; e.g., Tice, Bratslavsky, and Baumeister 2001). Unhappy people indulge in order to repair mood rather than exert restraint to accomplish long-term goals, unless they are told their actions can no longer help them repair their mood (Tice et al.'s [2001] participants were told that they consumed a pill that purportedly froze their mood for some time). Adding to this perspective, Shen and Wyer (2008) also argued that a negative mood always increases efforts to eliminate the negative mood, unless one infers that one's mood can be addressed only by acting in long-term interests (e.g., unhappy participants indulged with candy unless they attributed the cause of their negative mood to bad health). Other research compatible with Tice et al.'s view argues that a good mood is a buffer that enables happy (vs. unhappy) participants to act in their long-term interests because immediate affect regulation is not a priority (mood-as-resource perspective; e.g.,

Aspinwall 1998; Isen and Labroo 2003; Raghunathan and Trope 2002). In summary, from these lines of research, it is not clear whether happy or unhappy people are more likely to indulge to regulate immediate mood or to exert restraint to accomplish long-term interests.

In an attempt to resolve these findings and understand when a positive versus a negative mood might increase immediate affect regulation, Andrade (2005) and Andrade and Cohen (2007) argued that happy and unhappy people do not engage in immediate affect regulation unless an activity allows for it. When an activity cannot improve current affect, people use their mood as information, with a positive mood increasing engagement in an immediately affective activity more than a negative mood because it is seen as more positive (mood-congruent). This perspective, however, did not focus on when and why a positive mood might serve as a resource that encourages long-term actions over immediate affect regulation (Aspinwall 1998; Isen and Labroo 2003; Raghunathan and Trope 2002). To address this, Fishbach and Labroo (2007) additionally suggested that the impact of mood on affect regulation depends on the relative accessibility of immediate affect-regulation goals over long-term goals in the mind of a consumer. Because a positive (vs. a negative) mood is associated more with approach tendencies, a positive mood increases the adoption of whichever goal is accessible. Thus, when immediate affect regulation goals are accessible, those in a happy mood are more indulgent than those in an unhappy mood. However, when long-term goals are accessible, those in a happy mood are less indulgent than those in an unhappy mood.

A Role of Lay Theories of Emotion

Adding to these perspectives—that the effect of mood on choice of indulgence or restraint depends on inferred affect-regulating properties of an activity (Andrade 2005), or on participants' accessible goals (Fishbach and Labroo 2007)—we argue that when people are faced with a choice that enables them to regulate their immediate feelings or act in their long-term interests, such choice will also depend on whether people infer a need to act to improve their mood or not. That is, before making a decision, people are likely to assess whether or not their feelings are likely to be modified independently of the properties associated with a behavioral activity or choice. If people believe that negative feelings will pass on their own or that positive feelings will last, they will infer that actions in order to improve their mood are unnecessary, and they can act in their long-term interests. However, if they believe that negative feelings will last or that positive feelings will pass unless they take actions to improve their mood, they will act indulgently in an attempt to regulate their immediate affect.

Thus, when faced with a choice that enables people to regulate their immediate affect, they will behave in a way that accomplishes their immediate affect-regulation objectives, but only when they believe that such a behavior is necessary. When immediate affect regulation is attained

without any action, people will forgo behaviors that have immediate consequences for their feelings and make decisions that have long-term benefits. As a consequence, people's inference regarding their need to engage in immediate affect regulation will be determined jointly by their current feelings and their lay theories about the transience of emotion.

Existing research (Gilbert et al. 1998) suggests that people hold beliefs about the transience of emotion, which are independent of the actual duration of the emotion. For example, assistant professors hold beliefs about the duration for which getting tenure will make them happy or being rejected for tenure will make them unhappy. In addition, people vary in their beliefs about the extent to which emotion is lasting or fleeting; in general, they overpredict the duration of emotion, regardless of the valence of the emotion. In related research, Wood and Bettman (2007) also suggested that people use "feeling rules" regarding how long engaging in a certain activity will make them feel happy and that people can both underestimate and overestimate the duration for which an activity will make them feel happy. In summary, research on affective forecasting suggests that people differ in their beliefs about the durability or transience of emotion (Gilbert et al. 1998), that their judgment reflects such beliefs when they make inferences about whether an activity will make them feel happy or not (Wood and Bettman 2007), that such beliefs are flexible, and that the momentary accessibility of such beliefs can affect the choices people make (Gilbert et al. 1998; Wood and Bettman 2007). We additionally argue that consumers' lay theories about the transience of emotion, the extent to which they believe that emotion is fleeting versus lasting, are applied to their current feelings to assess whether or not to engage in an activity that will result in immediate affect regulation.

The literature is amenable to the notion that people's lay theories regarding the transience of emotion might determine whether a positive or a negative mood increases immediate affect regulation. For example, mood-maintenance theories (Isen and Means 1983) that predict that a positive (vs. a neutral) mood will increase immediate affect regulation appear to be based on the assumption that mood is transient. After all, one is unlikely to engage in the maintenance of a positive mood unless a positive mood is believed to be transient; thus, people in a positive mood will increase indulgence only if mood is believed to be transient. Second, mood-repair theories (Tice et al. 2001) that predict a negative (vs. a positive) mood will increase immediate affect regulation also require an underlying assumption that people infer it is necessary to regulate the negative affect. After all, if people infer that a negative mood will pass on its own, why is there a need to act proactively to improve that mood? In fact, Shen and Wyer's (2008) findings that a negative mood will increase indulgence only when people focus on their negative feelings (vs. causal events) might imply that those unhappy people infer a stronger need to improve immediate feelings. Although it is possible that focus on the cause of one's mood reduced indulgence be-

cause people inferred their negative mood is frozen until its underlying cause is addressed (e.g., Tice et al. 2001), the reverse is also possible: that focusing on long-term interests allowed people to infer that their negative feelings might pass on their own and that they instead should act in their long-term interests to prevent future negative feelings. Third, mood-as-resource theories that predict that a positive (vs. a negative) mood reduces affect regulation and enables one to act in long-term interests are also congenial with the belief that mood is lasting. After all, if a positive mood is not lasting, how can it be a viable resource? Finally, the mood-and-goal-adoption view (Fishbach and Labroo 2007), suggesting that a positive mood increases adoption of whichever goal—immediate affect regulation or long-term actions—is more accessible, is congenial with the idea that naive theories might determine goal accessibility. That is, when people believe that mood is passing, immediate affect-regulation goals might become more accessible, which, according to Fishbach and Labroo (2007), are more likely to be adopted by happy people. Therefore, unless an activity does not allow for affect regulation (Andrade 2005), people's current mood and lay theories about emotion transience will influence immediate affect regulation. And, if people are generally more likely to believe that emotion is stable, as proposed by Gilbert et al. (1998), one might expect that in a population, happy people are usually seen as exerting restraint (there is no need to boost the mood: mood as resource) but unhappy people are indulgent (without their own actions, the mood will not pass, except in the extreme and unusual situation when their actions cannot change mood: mood repair).

The Current Research

We propose that, faced with a choice that allows for immediate affect regulation, people who feel happy (vs. unhappy) will engage in affect regulation by choosing indulgent options when they believe that emotion is fleeting. This is because people who feel happy will infer that they need to act to preserve their mood, whereas those who feel unhappy do not need to act to feel better because the feelings will pass on their own. However, faced with a choice that allows for immediate affect regulation, people who feel unhappy (vs. happy) will engage in affect regulation when they believe that emotion is lasting. This is because, faced with a choice that allows for immediate affect regulation, people who feel unhappy will infer that they need to act to improve their mood, whereas those who feel happy do not need to act to preserve their feelings. We note parenthetically that there might be some extreme situations of emotional distress under which people believe emotion is frozen permanently and cannot be changed by their actions (Tice et al. 2001). However, such situations are likely to be unusual, relatively infrequent, and are outside the scope of our research (we return to this point in the General Discussion).

Six experiments provide support for these propositions. Experiments 1A–1C test the basic question: do people engage in immediate affect regulation when a belief that emo-

tion is fleeting is associated with positive (vs. negative) feelings, and when a belief that emotion is lasting is associated with negative (vs. positive) feelings? By employing different manipulations of feelings and of emotion theories, and different dependent variables, we provide converging evidence to support our arguments. Experiment 2 replicates these effects, but we measure individual differences in people's current feelings to infer whether lay theory will be attributed to positive or negative feelings. The study also includes a neutral-mood comparison. Experiment 3 establishes that these effects pertain to emotion transience and not to general transience, and experiment 4 further implicates the role of emotion-transience theories using an individual-differences (measured) variable. Taken together, our studies suggest that consumers hold emotion-transience beliefs that interact with consumers' current feelings to determine affect regulation.

EXPERIMENT 1A: CHOOSING AN INDULGENT SNACK

Experiment 1A was a field study designed to test the impact of mood and lay theories of emotion transience on choice of an indulgent snack. A line drawing of a smiling (vs. a frowning) face served as mood induction; previous research established that mere exposure to such faces corresponds with a mood induction (Lieberman et al. 2007). To manipulate emotion theory, participants were asked to color the given face with either a microtip pen or a thick-tipped Sharpie. We expected that coloring the face with a thin-tipped pen versus a thick-tipped Sharpie would make the task feel relatively less transient and that people would misattribute transience of the task to transience of feelings associated with the face. Participants were then thanked for their participation and allowed to choose between an apple and a bar of chocolate as compensation. Thus, we used a 2 (mood: happy vs. unhappy) \times 2 (emotion theory: fleeting vs. lasting) between-subjects design, in which the dependent variable was a choice between a snack that pretested as healthy (apple) or a snack that pretested as unhealthy but tasty (chocolate).

A pretest ($N = 19$) confirmed that, regardless of gender, chocolate is more immediately affective than apples, but apples are viewed as providing long-term health benefits. A second pretest ($N = 36$) confirmed that the manipulation of microtip pen versus a Sharpie (regardless of expression) resulted in differential emotion-transience beliefs. Participants colored either a smiling or frowning face with a microtip pen or with a Sharpie. They then indicated to what extent they believed emotion is transient (1 = emotion is persistent, 7 = transient). A 2 (pen) \times 2 (expression of face) between-subjects ANOVA confirmed that participants using a microtip pen versus a Sharpie (regardless of expression) were less likely to endorse emotion as transient (main effect of pen: $F(1, 32) = 8.38, p < .01$; M_{microtip} vs. $M_{\text{Sharpie}} = 3.22$ vs. 4.50; other F 's < 1).

Method

Participants. Forty-three undergraduate students at the University of Chicago participated in return for compensation. Participants were recruited as they entered a local gym, and all of them indicated that making healthy food choices was important to them.

Procedure. Participants read that they were taking part in a short study on time perception. The study involved a line-drawing coloring task that simultaneously served as mood induction and theory manipulation. The cover story instructed participants that the experimenter was interested in peoples' estimates of duration of events. Their task was to color a line drawing, which was presented to them, as quickly and carefully as possible, and then estimate how much time they took. Depending on the experimental condition, to manipulate mood, we asked participants to color a line drawing of either a smiling face or a frowning face. In the positive-mood condition, participants colored a line drawing of a smiling face (☺, in Times New Roman font size of 250), and in the negative-mood condition, participants colored a line drawing of a frowning face (☹, in the same font and size). To manipulate transience, we provided participants with a microtip pen or with a thick-tipped Sharpie. We expected that participants with a microtip pen would take longer to color the line drawing; thus, the task would seem less transient to them than to participants who used the Sharpie. This feeling of transience would be associated with the transience of emotion.

After participants completed this task, and in line with the cover story, they rated how much time it took to complete the task (1 = very little, 7 = very much; M_{Sharpie} vs. $M_{\text{microtip}} = 3.41$ vs. 5.10; $F(1, 39) = 12.25, p < .01$) and how soon the face was gone (1 = quickly, 7 = slowly; M_{Sharpie} vs. $M_{\text{microtip}} = 3.05$ vs. 5.11; $F(1, 39) = 14.99, p < .01$). They also rated how the face looked (1 = unhappy, 7 = happy; M_{smile} vs. $M_{\text{frown}} = 3.99$ vs. 1.84; $F(1, 39) = 544.08, p < .01$), how confident they felt at that moment (M 's = 5.55 vs. 4.93; $F(1, 39) = 2.93, p < .10$; it is important to note that lay theory and interaction F 's < 1), and how arousing and easy the task was (both on 7-point scales: 1 = not at all, 7 = very; F 's < 1). Once participants completed the study, they chose one of the two snacks (an apple vs. a chocolate bar) as compensation. After making a choice, each participant also indicated preference (strongly prefer 1 = apple, 7 = chocolate). They were then thanked and tested for suspicion. No participant attributed choice to the time-perception task.

Results and Discussion

The two task-transience measures were averaged ($r = .70$) to create a task-transience index. An ANOVA on this index revealed only the expected main effect of emotion theory (M_{Sharpie} vs. $M_{\text{microtip}} = 3.22$ vs. 5.10; $F(1, 39) = 17.48, p < .01$), indicating that participants assigned to the lasting-emotion (microtip pen) condition rated the task as

taking longer than those assigned to the fleeting-emotion (Sharpie) condition (mood \times theory $F < 1$).

We coded the choice of chocolates over apples as 1 versus 0 and conducted a binary logistic regression using mood, emotion theory, and their interaction on this choice measure. Only the interaction was significant ($z = 2.19, p < .05$; see table 1).

As expected, if participants believed that emotion is fleeting, those exposed to positive (vs. negative) faces were more likely to indulge (choose chocolate: M 's = 60% vs. 25%; $\chi^2(1) = 2.76, p < .05$).¹ In contrast, if they believed that emotion is lasting, participants exposed to positive (vs. negative) faces were less likely to indulge (M 's = 27% vs. 60%; $\chi^2(1) = 2.29, p < .07$). We observed similar results on the extent of preference for chocolate (interaction: $F(1, 39) = 7.73, p < .01$; other F 's < 1 ; fleeting: $M_{\text{pos}} = 5.00$ vs. $M_{\text{neg}} = 3.33$; $t(39) = 1.98, p < .05$; lasting: $M_{\text{pos}} = 2.91$ vs. $M_{\text{neg}} = 4.60$; $t(39) = 1.97, p < .05$). In summary, health-conscious gym goers acted in their long-term interests and chose the apple unless they inferred a need to regulate their affect.

EXPERIMENT 1B: AVOIDING A NEGATIVE APPEAL

Experiment 1B was designed to replicate the effects observed in experiment 1A, using an alternative manipulation of mood, of emotion theory, and a different dependent variable. This experiment used a 2 (mood: happy vs. unhappy) \times 2 (emotion theory: fleeting vs. lasting) between-subjects design, with time looked at negative materials for a charity (and the amount of donation) as the dependent variable. Participants who were randomly assigned to feeling happy or unhappy were primed that emotion is either lasting or fleeting. They were then presented with an opportunity to consider disturbing materials of a charity if they wished to do so (as in Isen and Simmonds 1978).

The charity materials described defective children's products responsible for the death of young babies and have been used previously to demonstrate that happy participants who adopt an immediate affect-regulation goal are unlikely to make a donation to this charity (Fishbach and Labroo 2007). A pretest ($N = 19$) further indicated that these materials induce immediate negative feelings and ignoring them feels good ("Attending to these materials makes me . . . 1 = feel bad, 7 = feel good right now"; "Ignoring these materials makes me . . . 1 = feel bad, 7 = feel good right now"; M 's = 2.63 vs. 4.13, $t(18) = 6.83, p < .01$), but they are also associated with long-term goals of becoming a better person ("Attending to these materials makes me . . . 1 = a bad person, 7 = a good person in the long term"; "Ignoring these materials makes me . . . 1 = a bad person, 7 = a good person in the long term"; M 's = 5.63 vs. 2.34, $t(18) = 10.98, p < .01$).

Method

Fifty-four undergraduate students at the University of Chicago participated in return for compensation. The study was conducted on a computer. Participants read that they were taking part in two unrelated studies.

In the first study, we induced mood by asking participants to write their first associations to each of 10 positive or 10 negative words (Fishbach and Labroo 2007; Isen, Daubman, and Nowicki 1987; Isen, Labroo, and Durlach 2004). Participants were instructed that the exercise was part of a pretest of materials for a future study. After completing this task, participants rated how pleasant the task was (1 = very unpleasant, 7 = very pleasant) and the effort they put into it (1 = not at all, 7 = a lot).

Next, participants completed an emotion-theory priming task, which was based on the procedures used by Srull and Wyer (1979). Participants were presented with eight sets of scrambled sentences, four of which were filler statements and four of which were intended to prime either a theory that emotion is fleeting (e.g., "emotions mostly are fleeting") or a theory that emotion is lasting (e.g., "emotions mostly are lasting"). Each scrambled set of words comprised five words, and participants were asked to use four words to form a sentence.

Participants were then told the study was over but, as we were working with a local charity to publicize their efforts, we had some materials that they could choose to look at. They were told that the materials are extremely sad and involve stories of real children who lost their lives because of defective products; therefore, they could decide whether or not to look at the materials and how long they wished to look at the materials, if at all. Among other things, the materials featured the picture and story of baby Danny, who was crushed to death in his crib after he awoke from a nap at his day care home (<http://kidsindanger.org/aboutus/index.asp>). The materials were further modified to ensure the emotional cost of attending to them was high compared to any emotional benefit one might derive from donating to the charity (Cialdini 1991), in line with existing research establishing that happy people who want to regulate their immediate mood are unwilling to make a donation to this charity when shown these materials (Fishbach and Labroo 2007, study 2). It is only when happy participants are made to consider the long-term benefits of becoming a better person that they become more willing to attend to these unpleasant materials and make a donation to this charity (Fishbach and Labroo 2007).

All but two participants, both in the negative mood and lasting beliefs condition, clicked to read the charity materials. Once participants navigated to the screen, they could choose how long they wished to look at the materials. The time they looked at these aversive materials was unobtrusively recorded by the computer program. Once participants navigated to the next screen, they were asked whether they wished to make a donation to the charity, and if so, in what amount. They then pledged an amount if they wished (making the actual donation when leaving

¹All contrasts are predicted and reported one-tailed.

TABLE 1
THE EFFECT OF MOOD AND EMOTION TRANSIENCE THEORIES ON THE CHOICE OF IMMEDIATE AFFECT REGULATION
OVER LONG-TERM INTERESTS: SUMMARY OF RESULTS

	Emotion is fleeting			Emotion is lasting		
	Happy mood	Neutral mood	Unhappy mood	Happy mood	Neutral mood	Unhappy mood
Experiment 1A ($N = 43$):						
% choosing chocolate over apple	60	. . .	25	27	. . .	60
Preference for chocolate	5.00		3.33	2.91		4.60
Experiment 1B ($N = 54$):						
Cents donated to charity	14.38	. . .	37.11	44.23	. . .	5.77
Seconds spent looking at materials	35.33		62.27	51.05		31.00
Experiment 1C ($N = 101$):						
% choosing to take a break	50	. . .	23	20	. . .	50
Experiment 2 ($N = 112$):						
Liking of chocolate over apple	4.71	3.89	2.92	2.85	3.85	4.94
Experiment 3 ($N = 117$):						
Liking of chocolate over apple:						
Emotion theory	4.87	. . .	2.71	3.50	. . .	4.56
General theory	3.38	. . .	3.94	4.14	. . .	3.92
Experiment 4 ($N = 120$):						
Liking of chocolate over apple:						
Low salience (theory assimilation)	5.82	. . .	4.00	3.50	. . .	5.25
High salience (theory correction)	4.47	. . .	4.00	4.08	. . .	4.00
% avoiding mood-threatening appeal:						
Low salience (theory assimilation)	94	. . .	62	60	. . .	94
High salience (theory correction)	65	. . .	64	92	. . .	78

the study), indicated how the charity made them feel (all said extremely sad, some additionally said angry), and why they made a donation (reasons included “to protect young children” and “I thought I should do something for these children”; notably, no participant said that donating made them feel good) or did not make a donation to the charity (reasons included “I am poor,” “I give to other charities,” and “I did not feel like giving to this charity”). After this, they recalled whatever they could from the ad and were thanked and debriefed. They were also checked for suspicion (no participant correctly noted the true purpose of the study).

Results and Discussion

Four respondents had taken a class with the father of baby Danny, who is a professor at the University of Chicago, where the study was run, and data provided by those participants were removed from the analysis. A 2 (mood) \times 2 (emotion theory) ANOVA conducted on the average of the pleasantness measure revealed only the expected main effect of mood (M_{happy} vs. $M_{\text{unhappy}} = 5.95$ vs. 2.61; $F(1, 44) = 123.97$, $p < .01$; other F 's < 1). The ANOVA on the effort rating of the task revealed no significant effects (F 's < 1). Also, people in the happy (vs. unhappy) condition

did not differ in the amount of time spent providing the associations (F 's < 1).²

Time Spent Looking at Disturbing Materials. Data pertaining to time spent looking at the materials was log transformed, and a 2 (mood) \times 2 (emotion theory) ANOVA conducted on this transformed score revealed only a significant interaction ($F(1, 44) = 13.92$, $p < .01$; theory: $F(1, 44) = 1.13$, $p > .25$; mood: $F < 1$). As expected, happy (vs. unhappy) participants spent less time looking at the negative appeal when they believed that emotion is fleeting ($M = 35.33$ vs. 62.27 seconds, $t(44) = 2.92$, $p < .05$) but more time looking at the materials when they believed that emotion is lasting ($M = 51.05$ vs. 31.00 seconds, $t(44) = 1.87$, $p < .05$).³

Donation to Charity. A 2 (mood) \times 2 (emotion theory) ANOVA conducted on amount of money donated also revealed only a significant interaction ($F(1, 44) = 7.08$, $p < .01$; other F 's < 1). As expected, happy (vs. unhappy) participants donated less to charity when they believed that emotion is fleeting ($M = 14.38$ vs. 37.11 cents, $t(44) = 1.69$, $p < .05$) but more when they believed that emotion is

²The data of the two participants who chose not to look at the charity materials and therefore did not provide any charity-related data were excluded from these control tests. Including their control data does not change these results.

³Similar patterns were observed on time spent recalling information from the charity appeal.

lasting ($M = 44.23$ vs. 5.77 cents, $t(44) = 2.66$, $p < .05$). Mediation analysis showed that the effect of mood \times theory on amount of donation was fully mediated by time spent looking at the negative materials (mood \times theory on amount of donation: $\beta = .15$, $t(44) = 2.67$, $p < .01$; mood \times theory on time looking at materials: $\beta = .12$, $t(44) = 3.28$, $p < .01$; time looking at materials on donation: $\beta = .54$, $t(44) = 2.64$, $p < .01$; but when time looking at materials was controlled for in the regression of mood \times theory on amount of donation, the impact of mood \times theory reduced to $\beta = .10$, $t(44) = 1.65$, $p > .10$, but the effect of time looking at materials remained significant, $\beta = .39$, $t(44) = 1.76$, $p < .05$; Sobel $z = 2.24$, $p < .05$).

In summary, we induced a happy or an unhappy mood and a theory of fleeting or lasting emotion among our respondents. We then presented them with disturbing information regarding a charity. The data indicated that when participants believed that emotion is fleeting, those who felt happy (vs. unhappy) regulated their immediate affect by not considering the negative appeal, similar to Isen and Simmonds's (1978) participants. They were less willing to look at the negative materials or make a donation to this unfamiliar charity and spent less time recalling the content of the charity materials. The reverse was true when participants believed that emotion is lasting.

EXPERIMENT 1C: STUDY OR TAKE A BREAK?

Replicating these effects with a third manipulation of mood and theory and a different dependent variable, 101 undergraduate students at the Hong Kong University of Science and Technology were primed with a passage titled "Positive emotion will pass," "Negative emotion will pass," "Positive emotion will last," or "Negative emotion will last" (adapted from Dweck 1999). The passages were identical in all respects except for replacing the word *fleeting* with *lasting* and the word *positive* with *negative*, depending on the condition. After completing a filler task, participants read a scenario (adapted from Koo, Labroo, and Lee 2006) in which they were studying for an important final but were tempted to take a break. What would they do? A pretest ($N = 19$) had previously confirmed that studying provides long-term benefits, whereas a break is immediately affective ($M = 6.29$ vs. 2.44 , $t(18) = 12.36$, $p < .01$). A binary logistic regression (break = 1, study = 0) with mood and theory as independent variables resulted in only a significant interaction ($z = 2.92$, $p < .05$). Positive (vs. negative) participants were more likely to choose a break when they believed emotion is fleeting (M 's = 50% vs. 23%; $\chi^2(1) = 4.06$, $p < .05$) but less likely to do so when they believed emotion is lasting (M 's = 20% vs. 50%; $\chi^2(1) = 4.86$, $p < .05$). Thus, participants acted in their long-term interests (study) unless they inferred a need to regulate their immediate affect. It is important to note that no participant correctly linked the priming manipulation to the dependent variable (recall that it was collected after a filler task).

EXPERIMENT 2: THE MIDLING ROLE OF "NEUTRAL" MOOD

Does an increasingly positive (negative) mood enhance (reduce) affect regulation relative to a less positive (negative) mood if emotion is believed to be fleeting, and does the reverse pattern emerge if emotion is lasting? Although we expect that when mood is neutral, actions are unlikely to differ on the basis of emotion theory (because theory about emotion is irrelevant when no emotion is experienced), it is informative to investigate what the effect of increased positivity or negativity is. Thus, to further investigate the influence of mood and emotion theories on affect regulation, we randomly assigned 112 health-conscious ("Being healthy is . . . [1 = unimportant, 7 = extremely important to me]"; $M = 6.09$) undergraduate students from the University of Chicago and the Hong Kong University of Science and Technology (location had no effect on the results) to a condition in which they were induced to believe either that emotion is lasting or that it is fleeting (using manipulations similar to those employed in experiment 1B). After an unrelated filler task, we measured their current mood (1 = very unhappy, 9 = very happy). They also completed unrelated filler scale items, after which they were informed that the study was over and were asked if they would prefer chocolate or an apple if we were to offer them these options as compensation (1 = apple, 7 = chocolate).

We performed a three-way split on the current mood rating, and a 3 (mood: happy vs. control vs. unhappy) \times 2 (emotion theory: fleeting vs. lasting) between-subjects ANOVA on the chocolate-versus-apple preference measure revealed only a significant interaction ($F(2, 106) = 10.50$, $p < .01$). If they believed that emotion is fleeting, happy participants engaged in affect regulation and preferred chocolate over apple more than neutral-mood participants (M 's = 4.71 vs. 3.89; $t(106) = 1.63$, $p = .05$), who in turn preferred chocolate over apple more than negative-mood participants ($M = 2.92$; $t(106) = 1.71$, $p < .05$). In contrast, if they believed that emotion is lasting, unhappy participants engaged in affect regulation and preferred chocolates over apples more than neutral-mood participants (M 's = 4.94 vs. 3.85; $t(106) = 1.92$, $p < .05$), who in turn preferred chocolates over apples more than positive-mood participants ($M = 2.85$; $t(106) = 1.76$, $p < .05$).

The results replicate using the continuous measure of mood and slopes analyses (Aiken and West 1991; mood \times theory $F(3, 108) = 10.83$, $p < .01$). For fleeting emotion, positive affect increased preference for chocolate ($B = .71$, $t(108) = 4.41$, $p < .01$). For lasting emotion, positive affect decreased preference for chocolate ($B = -.57$, $t(108) = 3.48$, $p < .01$). Thus, we replicated the findings of experiments 1A–1C with measured mood and found further that a neutral-mood condition might lie between the positive- and negative-mood conditions (although this latter finding should be interpreted with caution, given the indeterminacy of what an emotion theory might imply when people are not feeling emotion).

EXPERIMENT 3: LAY THEORIES OF EMOTION OR GENERAL THEORIES?

Experiment 3 was designed to disambiguate the effect of emotion-transience theory from a general transience theory or worldview. That is, might more general notions of transience result in similar effects of mood on affect regulation, or must the beliefs pertain to emotion?

Method

One hundred and seventeen students from the Hong Kong University of Science and Technology, who agreed that being healthy was important to them, participated in return for course credit. Depending on experimental condition, participants were first primed with the notion that emotion or action consequences are fleeting or lasting (adapted from Dweck 1999). A pretest ($N = 61$) indicated that the passages are similarly believable (1 = not at all, 6 = very; M_{general} vs. $M_{\text{emotion}} = 4.53$ vs. 4.67; $F < 1$; other F 's < 1) and are more believable than not believable (vs. the midpoint of the scale, general: $t(29) = 3.37$, $p < .01$; emotion: $t(30) = 4.76$, $p < .01$). They are also believable by similar proportions of people (13 of 16 respondents agreed emotions are lasting; 11 of 15 respondents agreed consequences of actions are lasting; 11 of 15 respondents agreed emotions are fleeting; 11 of 15 respondents agreed consequences of actions are fleeting).

Next, we evoked mood by asking participants to read an ad for Save the Children (STC) featuring photographs of smiling or sad children and with the following captions: "Experience their glow," "Celebrate their happiness," and "Share the gladness," or "Experience their desolation," "Share the misery," and "Suffer their sadness." Participants reported their attitudes toward the STC Foundation (1 = dislike very much, not at all relevant, emotionally empty, unattractive, not arousing, not eye-catching; 7 = like very much, very relevant, emotionally rich, very attractive, very arousing, very eye-catching; $\alpha = .82$; $M_{\text{happy}} = 4.37$ vs. $M_{\text{unhappy}} = 4.79$; $F(1, 109) = 5.72$, $p < .05$; other F 's < 1). Then, they self-reported on their mood ("Reading the STC ad made me feel . . . [1 = very unhappy, very negative; 7 = very happy, very positive]"; $r = .51$, $p < .01$; $M_{\text{happy}} = 4.23$ vs. $M_{\text{unhappy}} = 3.40$; $F(1, 109) = 19.56$, $p < .01$). Because the facial expressions of the children might provide information about the plight of the children in addition to manipulating mood, participants were not asked to donate to the charity. Instead, the dependent variable was a preferred snack (1 = apple, 7 = chocolate).

Results and Discussion

A 2 (mood) \times 2 (transience) \times 2 (theory) between-subjects ANOVA on the relative preference for chocolate revealed only a significant three-way interaction ($F(1, 109) = 6.45$, $p < .05$). Planned contrasts indicated that the previously observed patterns were replicated, but only when lay theories were specific to emotion. When lay theories

pertained to emotion, there was a significant interaction between mood and emotion theory ($F(1, 109) = 9.79$, $p < .01$). If emotion is fleeting, happy (vs. unhappy) respondents preferred chocolate ($M = 4.87$ vs. 2.71; $t(109) = 3.10$, $p < .05$). In contrast, if emotion is lasting, unhappy (vs. happy) respondents somewhat preferred chocolate ($M = 4.56$ vs. 3.50; $t(109) = 1.53$, $p < .10$). Similar effects did not emerge when general theories were primed (all F 's < 1 ; see table 1).

Although this null effect for general theories must, as with any null effect, be interpreted with caution, it should be noted that general theories were rated as believable as emotion theories (and believable rather than not believable by similar proportions of participants). Also, responses of participants primed with general theories were similar to those of participants primed with emotion theories with respect to evaluation of the STC ad, in which a main effect of ad valence did emerge; differences between the emotion and general theory emerged only in preference for a snack that might regulate one's immediate affect.

EXPERIMENT 4: INDIVIDUAL DIFFERENCES IN EMOTION THEORY

The aim of experiment 4 was to further implicate the role of emotion-transience theories by measuring rather than manipulating participants' emotion-transience beliefs. In addition to helping assess external validity, this also helps triangulate on the role of emotion-transience theories as being critical to the observed effects. A second purpose was to investigate whether people correct for the possible use of feelings on judgment if these theories are made salient to them. Existing research has suggested that measuring one belief immediately prior to another measure causes assimilation when people perceive that the first is highly diagnostic but produces a contrast effect when people think more deeply about diagnosticity and conclude that the prior measured construct should not be diagnostic (Bickart 1993; Mukhopadhyay and Johar 2005; Mussweiler and Strack 2000; Schwarz and Bless 2007). Our pretesting (experiment 3) on believability of emotion theories indicated that these beliefs are of moderate diagnosticity. Therefore, we expect that when a possible influence of emotion theory on choice is salient, one will think about whether one should be choosing based on one's feelings of the moment and conclude that it is inappropriate to do so. A final purpose of experiment 4 was to test whether mood and emotion theories affect only the first choice people make or their choices on multiple occasions. That is, are respondents simply deferring action in accordance with their long-term interests? We predict that this is not the case and that similar effects will be observed on all choices as long as mood or theory does not change. Thus, in this study, participants made two successive choices—considering unpleasant appeals and choosing healthy snacks, in sequence.

Method

One hundred and twenty undergraduate students from the Hong Kong University of Science and Technology participated in return for monetary compensation. This experiment employed a 2 (mood: positive vs. negative) \times 2 (emotion theory: fleeting vs. lasting) \times 2 (salience: low vs. high) between-subjects design, in which all participants made two decisions in sequence, each of which required a choice between immediate affect regulation and actions that result in long-term benefits.

The study comprised several supposedly unrelated tasks. The first task manipulated mood. Based on condition, participants were asked to provide a vivid description of a happy or an unhappy day from their lives (Fishbach and Labroo 2007). Happy events that participants listed included descriptions of academic successes, spending time with a friend or family member, a special birthday celebration, and so forth. Unhappy events included failures, the passing away of or illnesses suffered by family members, breakups with relationship partners, and so forth. After completing this task, participants rated how interesting it was (1 = not at all, 7 = very) and how much effort they put into it (1 = not at all, 7 = a lot). We pretested the materials, and because the act of labeling a mood can potentially attenuate the actual affective experience (Lieberman et al. 2007), we had coders (rather than participants themselves) rate the positivity of the descriptions.

The second task measured emotion-transience theory. Participants completed a "Perceptual Inclinations Inventory" in which they answered three questions designed to measure their beliefs about emotions ("In general, emotions that people experience are . . . 1 = short-lived, fleeting, tend to fade in a short while; 7 = persistent, lasting, endure for a long while"; $r = .81$; $M = 3.80$, $SD = 1.17$, minimum = 1.00, maximum = 6.33; adapted from Tamir et al. 2007).

Next, participants in the high-theory-salience condition proceeded to the dependent variables immediately after indicating their beliefs about their lay theories. Participants in the low-salience condition completed a filler task (comprehension of a 420-word Sherlock Holmes passage while counting vowels that appeared contiguously in the text) before proceeding to the dependent variables (high-salience participants completed the filler prior to the mood induction). We expected that because these participants would be alerted to the link between their lay theories and the dependent variable and thus a possible source of influence on their judgment, they would correct for the effect of mood and emotion-transience theories on their choices. Existing research has demonstrated that people correct for a possible impact of similar theories when made aware of a source of influence (Mukhopadhyay and Johar 2005), and it is likely that awareness of a source of influence of mood theories will result in similar correction effects.

The two dependent variables (counterbalanced) followed. The first dependent variable was preference for a healthy (1 = apple) versus tasty (7 = chocolate) snack. In contrast to experiment 1A, participants did not actually get their

choice of snack because research has indicated that the receipt of token gifts leads to a positive mood; giving them the snack would confound improving their mood with the second measure. The second dependent variable was a charity appeal similar to the one used in experiment 1B, with the choice to make a donation. Participants were then debriefed.

Results and Discussion

Two judges blind to hypothesis and condition coded each participant's description of a happy or an unhappy day (1 = extremely unhappy, 5 = extremely happy). The ANOVA on the average of the two mood ratings ($\alpha = .88$), with mood and theory as the independent variables, revealed only the expected effect of mood ($M = 4.33$ vs. $M = 1.65$; $F(1, 112) = 546.41$, $p < .01$; other F 's < 1). Effort and task-enjoyment ratings were similar across mood conditions (F 's < 1).

Preferring an Indulgent Snack. A 2 \times 2 \times 2 between-subjects ANOVA on preference for snack revealed a significant three-way interaction ($F(1, 112) = 4.20$, $p < .05$). In the low-salience condition, a significant interaction between mood and emotion theory emerged ($F(1, 112) = 12.37$, $p < .01$), such that happy (vs. unhappy) participants were likely to prefer chocolate more strongly if they believed that emotion is fleeting ($M = 5.82$ vs. 4.00 ; $t(112) = 2.74$, $p < .01$). In contrast, happy (vs. unhappy) participants were less likely to prefer chocolate if they believed that emotion is lasting ($M = 3.50$ vs. 5.25 ; $t(112) = 2.28$, $p < .05$). As we predicted, there was no interaction between mood and theory in the high-salience condition ($F < 1$).

Disturbing Charity. The unwillingness to volunteer was entered into a binary logistic regression (1, vs. volunteer = 0) with emotion theory, mood, and theory salience, in addition to all possible interactions. Only the three-way interaction was significant ($z = 2.61$, $p < .01$). Follow-up analyses revealed a significant interaction between emotion theory and mood only in the low-salience condition ($z = 2.73$, $p < .01$). Happy (vs. unhappy) respondents were unwilling to volunteer when mood is threatened if they believed that emotion is fleeting ($M = 94\%$ vs. 62% ; $\chi^2(1) = 4.93$, $p < .05$) but were more willing if they believed that emotion is lasting (M 's = 60% vs. 94% ; $\chi^2(1) = 4.51$, $p < .05$). These results replicate our previous findings; participants were unwilling to volunteer when they inferred a need to regulate their immediate affect. When emotion theories were made salient, as we expected, respondents corrected for these theories, and we observed null effects. We found similar results on hours volunteered: salience \times mood \times theory: $F(1, 112) = 7.29$, $p < .05$; low salience: mood \times theory: $F(1, 112) = 10.32$, $p < .05$; fleeting theory: $M_{\text{happy}} = 3.76$ vs. $M_{\text{unhappy}} = 6.13$; $t(112) = 2.41$, $p < .05$; lasting theory: $M_{\text{happy}} = 6.60$ vs. $M_{\text{unhappy}} = 4.13$; $t(112) = 2.23$, $p < .05$; high-salience F 's < 1 . The results replicate using a continuous measure of theory; salience \times mood \times

theory: $F(1, 112) = 5.38, p < .05$. Slopes analysis confirmed that for nonsalient fleeting emotion, happiness increased affect regulation ($B = 3.13, t(112) = 1.76, p < .05$), while for nonsalient lasting emotion, happiness reduced affect regulation ($B = -3.73, t(112) = 2.15, p < .05$).

These data provide several important insights. First, they suggest that emotion-transience theories can be measured and that people differ in their beliefs about them. Showing that measured lay theories of emotion have effects that replicate those of the manipulated lay theories strongly reinforces both sets of results. Second, they suggest that because emotion theories are of modest diagnosticity, people correct for the possible effect of feelings on judgment if these theories are made salient (Bickart 1993). When a possible influence of emotion theory on choice is salient, it appears that the measurement context causes one to think about whether one should be choosing based on one's feelings of the moment, and people conclude that it is inappropriate to do so (Bickart 1993). Finally, these data show that the influence of mood and emotion theory extends to multiple tasks people encounter, not just to the first one. It seems that as long as theory or feelings do not change, or people do not become aware of them and question their diagnosticity, they continue to use their emotion theories to regulate their immediate affect.

GENERAL DISCUSSION

Across six studies, we showed that if people believe that emotion is fleeting, a positive (vs. a negative) mood increases immediate affect regulation. This is because if emotion is fleeting, a person must engage in affect regulation to maintain his or her current positive mood, but negative mood will pass on its own, so one can focus on important long-term interests. In contrast, if emotion is lasting, a person must engage in affect regulation to repair a current negative mood, but positive mood will last, so one can focus on important long-term interests. We obtained results in support of this perspective when we manipulated feelings by associating positive or negative valence to a task (experiments 1A, 1C, and 3), when we directly manipulated feelings by asking participants to think positive or negative thoughts (experiments 1B and 4), and when we measured mood (experiment 2). Thus, multiple operationalizations of mood led to similar effects. We also obtained these results when we primed emotion theories through a passage-comprehension exercise (experiments 1C, 2, and 3), through a task-transience task (experiment 1A), through a scrambled sentence task (experiment 1B), and with measured variables tapping into individual differences in emotion theories (experiment 4). Thus, multiple operationalizations of lay theories of emotion also resulted in similar effects. Furthermore, a meta-analysis of the effects observed across studies, using Winer's (1971) method of pooling t 's, validated the results (contrast of emotion within fleeting: $z = 7.62, p < .01$; within lasting: $z = -6.41, p < .01$), attesting to the robustness of these effects.

When we made lay theories salient (experiment 4), par-

ticipants corrected for their effects on behavior. This suggests that emotion theories are of limited diagnosticity, and although people appear to use them in their decisions, their effect is attenuated if a source of influence of those theories is made salient. This finding is compatible with existing research that has established that people tend to assimilate their choices and judgments with theories they believe are highly diagnostic when those theories are made salient, but they tend to contrast their actions and judgments away from theories that might be of moderate diagnosticity, including theories pertaining to the use of feelings in judgment, when those theories are made salient (Mussweiler and Strack 2000). This is because such theories often arise from overgeneralizations and observed correlations, so people tend to use those theories automatically in their judgments unless they become aware of those theories. When people become aware of these theories, they recognize their tendency to overgeneralize and also recognize the theories as sources of influence that seem irrelevant to their judgment. Thus, people try to avoid being influenced.

In addition, the effects we found were specific to lay theories of emotion. The effects were not observed when we primed general theories of transience, although both theories were equally believable (experiment 3). Importantly, a measured variable tapping into individual differences in beliefs about emotion transience provided converging evidence (experiment 4). We also employed several different dependent variables, including consideration of an unpleasant appeal, the choice between a healthy apple and indulgent chocolate, and the choice between studying for an exam and enjoying a break: variables that reflect a trade-off between immediate affect and long-term interests (Fishbach and Labroo 2007; Tice et al. 2001). Thus, these data provide a fresh perspective on when a positive (vs. a negative) mood increases immediate affect regulation by showing how people's metacognition about emotion transience influences their actions.

Contribution to the Mood and Affect-Regulation Literature

To those interested in understanding how people, in general, choose between immediate affect regulation and accomplishing that which is beneficial in the long term, and, in particular, how mood might affect such trade-offs, the present research provides an important new perspective. We argue that people act in their long-term interests unless they infer a need to immediately improve their current mood. Not only does this choice depend on people's current mood, but we introduce a new construct pertaining to lay beliefs regarding the transience of emotions and show how both of these factors systematically influence affect regulation. We further argue that considering the role of such beliefs regarding the transience of emotions helps reconcile several streams of existing research on mood and affect regulation.

For example, it seems plausible that mood-maintenance views (Isen and Means 1983) that argue that a positive (vs.

a negative) mood increases immediate affect regulation are likely to hold only when people believe emotion is transient, whereas mood-repair views that posit that a negative (vs. a positive) mood increases immediate affect regulation (Tice et al. 2001) are likely to hold when people believe that emotion is lasting, unless actions are undertaken to improve feelings. In addition, mood-as-resource theories (Raghunathan and Trope 2002) that argue that a positive (vs. a negative) mood increases long-term actions are likely to hold if people believe that a positive mood is lasting. Other theories that have argued that a negative mood might increase long-term actions when people focus on the cause of their feelings (Shen and Wyer 2008) are also compatible with our perspective, because it is possible that one reason why people focus on addressing a long-term cause of their feelings is if they believe that current feelings are transient and not a problem. Our findings thus add to research showing that the impact of mood on affect regulation can depend on inferred affect-regulating properties of an action (Andrade 2005) but show further that an additional factor upon which affect regulation depends is people's inferences about their own mood states and the need to act to feel good in the moment.

In addition, Cohen, Pham, and Andrade (2008) recently suggested that people might regulate their positive feelings in two ways, either by protecting the current feelings or by trying to boost them. We provide the first empirical evidence of these two pathways to feeling good.

A Link to Existing Research on Trait-Malleability Beliefs and Emotion Controllability

The current research also provides an important new perspective on research that suggests that consumers vary in their beliefs about the malleability of traits such as intelligence, morality, and willpower (Dweck 1999; Plaks, Grant, and Dweck 2005; Wyer 2004). Those findings show that people are less concerned about the immediate affective consequences of their actions and act in their long-term interests when they believe that intelligence, morality, or willpower is malleable and can be improved with effort (Dweck and Leggett 1998; Mukhopadhyay and Johar 2005). Related emotion research has argued that people also have beliefs about the malleability of emotion, and when they believe that their actions can improve their negative mood, they act accordingly to improve their immediate affect. For example, Tice et al. (2001) suggest that a negative mood increases indulgence unless the mood is fixed by "a mood-freezing pill." Happy respondents showed no such effect and always engaged in restraint.

At first look, our data appear to conflict with Tice et al.'s (2001) findings by showing the reverse—namely, that negative mood reduces indulgence unless participants believe that the bad mood is lasting. Our happy respondents demonstrated the predicted reversal of the effect. In this respect, our findings are orthogonal to those of Tice et al. (2001) and thus qualify their findings. From our perspective, Tice

et al.'s mood-freezing pill is an external override to the lay beliefs we study because the manipulation signals that mood improvement is no longer possible. In contrast, in our studies, mood improvement is always possible; what varies is the extent to which mood, left to itself, will improve. Thus, the focus of our research is essentially on Tice et al.'s no-pill control condition, in which a negative (vs. a positive) mood increased indulgence. However, we additionally show that the no-pill control can increase or decrease indulgence, depending on emotion theory. Upset people do not always act indulgently whenever their actions can improve their mood, as Tice et al. (2001) suggest. They indulge only if they infer that they need to do so.

The no-pill control result that Tice et al. (2001) find can furthermore be explained by our theory in terms of underlying population distributions across lay theories. This is because, in general, people overestimate the duration of their moods (Gilbert et al. 1998), negative and positive, and the finding that Tice et al.'s unhappy respondents took actions to feel better while their happy participants exerted restraint reflects that there were relatively more lasting-theory (vs. fleeting-theory) respondents in their sample. Thus, our research explains Tice et al.'s (2001) results, but their research cannot explain our results. We offer both a broader theory and data consistent with that theory, while operating in the domain of lay beliefs that people themselves hold, rather than external overrides such as the mood-freezing pill.

Other Implications and Future Research Directions

Is it possible that emotional distress influences ego depletion, which in turn reduces self-control and actions that favor long-term interests? While emotional distress might cause ego depletion and self-control failures (Baumeister 2002), recall the opposite findings in the mood literature demonstrating that negative moods such as our participants felt might also increase long-term actions (Shen and Wyer 2008), in a manner inconsistent with depletion. Thus, it is not clear whether a negative mood increases depletion. In addition, in our data, it is unlikely that a negative mood caused depletion because people with the same negative-mood manipulation acted differently on the basis of emotion-transience theory. Even if we were to concede that upset participants who thought mood is lasting were somehow depleted, it is not clear how a depletion account would explain our positive-mood results. Recall that transient beliefs resulted in indulgence for happy people, and it is unlikely that merely anticipating the passing of positive emotion results in depletion. However, this remains an issue for future research.

Another issue for future research is the extent to which emotion-transience theories hold for specific emotions. Although we tested these theories with positively or negatively valenced feelings rather than specific emotions, we believe that they are likely to hold for most specific emotions as well. Because emotions typically direct attention to the cause

of the emotion (e.g., I feel sad because my friend is unwell), and because emotions can have carryover effects across consumption domains and opportunities (Mukhopadhyay and Johar 2007), we believe that the theories people hold will influence their subsequent actions. We expect that if people believe that emotion will pass, they are indeed likely to act more in their long-term interest. This might be because they infer they are not feeling so sad (e.g., if my emotion will pass then maybe it is not such a close friend) or that they are indeed sad but they still need to get their own life in order (sickness comes to all, so let me focus on what I need to do now). If they believe that emotion is lasting, they will act more indulgently to improve their mood, and, only if they believe that emotion is frozen permanently, they may face extreme forms of depression that would result in their losing interest in long-term actions and immediately happy ones. There may be some exceptions to this logic—for example, the case of pride or guilt; it is intuitively appealing that people might act more in their long-term interests if pride is fleeting or if guilt is lasting, presumably because people use these emotions to manage their long-term interests more effectively. Further research should investigate these possibilities.

To conclude, the incorporation of a role of lay theories of emotion transience in understanding affect regulation has the potential to greatly increase our understanding of the interplay between feelings and decision making. To that extent, in the spirit of Gross (1998), this research represents a potentially important step toward an overarching theory of affect regulation.

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