

Lenses of the Heart: How Actors' and Observers' Perspectives Influence Emotional Experiences

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This research examines how the visual perspectives that people take to appraise an event, that is, whether they view themselves as actors in the situation or observers of it, influence the intensities of the emotions they experience. We predict that in a situation that elicits emotions, greater attention to the self (if using an observer's perspective) leads to greater intensity of self-conscious emotions such as pride, guilt, and embarrassment, whereas greater attention to the situation (if using an actor's perspective) leads to greater intensity of hedonic emotions such as joy, sorrow, and excitement. In this way, visual perspectives can act as situational antecedents that shape the use of emotion appraisals. Three experiments support these propositions and demonstrate the mediating role of appraisals, across a variety of emotion-eliciting contexts, that were visualized as well as recalled.

We always did feel the same
We just saw it from a different point of view
(Bob Dylan, "Tangled Up in Blue" [1974])

Who is likely to feel happier during a ceremony while winning an important award—someone who is in the moment and living it as it happens, or someone who takes a mental step back and views the situation as if watching a movie of oneself? Who is likely to feel more proud? Who is likely to feel sadder at missing out, or more embarrassed about tripping en route to the podium? People feel emotions when they live through, anticipate, or recall events

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in their lives, and much research has discussed the differences among various emotions. In this research, we take a different perspective and investigate instead the lenses with which people view the events that give rise to their emotions, and how these lenses can themselves influence the emotional experiences.

Our point of departure is the proposition that the "visual perspective" that people use to view a given event (i.e., whether they see themselves as actors in or observers of the event) induces them to focus on different information in the situation (Jones and Nisbett 1972). These visual perspectives therefore influence the manner in which people appraise the situation. Specifically, actors tend to focus more on the situation, whereas observers focus more on the self in the situation. Since specific combinations of appraisals can give rise to particular emotions (Ortony, Clore, and Collins 1988), variations in the extent to which these appraisals are used can lead to variations in the intensities of the elicited emotions. As a result, actors and observers should experience differences in the intensities of emotions they feel. In particular, we propose that people experience hedonic emotions more intensely if they use an actor's perspective than if they use an observer's perspective, and, correspondingly, experience self-conscious emotions more intensely if they use an observer's perspective than if they use an actor's perspective.

We examine these predictions in three experiments, assessing cognitive appraisals as well as a range of emotional

experiences and contexts. Experiment 1 investigates the hedonic and self-conscious emotions that are felt in situations involving self-control dilemmas, and how visual perspectives influence the relative intensities of these emotions. Experiment 2 then shows that visual perspectives have similar effects on emotions elicited from recalled events, and demonstrates the mediating effect of cognitive appraisals. Finally, experiment 3 provides a conceptual replication as well as mediation in a situation not involving self-control, featuring therefore a different set of emergent emotions. Across experiments, we consistently find that hedonic emotions are more strongly experienced when participants take an actor's (vs. an observer's) perspective, whereas self-conscious emotions are more strongly felt when participants take an observer's (vs. an actor's) perspective.

THEORETICAL DEVELOPMENT

The Nature of Hedonic and Self-Conscious Emotions

Much attention in social psychology and consumer research has been devoted to understanding mood effects and the "basic" difference between positive and negative moods; however, researchers have only recently started examining the more "complex" emotions in detail (see Cohen, Pham, and Andrade [2008] for a review). As Han, Lerner, and Keltner (2007) discuss, specific emotions may differ on several dimensions, such as certainty and pleasantness, each of which is associated with specific cognitive appraisals. One dimension, most relevant to the present work, is the distinction between more spontaneous, hedonic emotions and more deliberative, self-conscious emotions (Giner-Sorolla 2001; Leary 2007). Hedonic emotions, such as excitement, frustration, joy, and sadness, are characterized by being immediate in nature and are elicited spontaneously without much cognitive elaboration. In contrast, self-conscious emotions, such as embarrassment, guilt, pride, and shame, are more deliberative in nature and often result from individuals' thoughts about "how they think they are being evaluated or might be evaluated by others" (Leary 2007, 330). For example, individuals might feel embarrassed when they think that their behavior might lead other people to form negative inferences about them (e.g., unexpectedly seeing others naked; Miller 1995). Individuals feel guilty, regretful, or proud when they are evaluating themselves from the perspectives of real or imagined others or thinking about how others might evaluate them with regard to social appropriateness or acceptability (Leary 2007). Thus, self-conscious emotional experiences are often elicited by thoughts about how others might judge oneself. Like basic affective reactions, hedonic and self-conscious emotions can be characterized by valence (positive vs. negative) and intensity. One might feel positive hedonic emotions such as excitement, pleasure, and hope, as well as negative hedonic emotions such as sadness, frustration, and disgust. By the same token, one might feel positive self-conscious emotions such as pride

and negative self-conscious emotions such as guilt, embarrassment, regret, and shame.

Past research has used the distinction between hedonic and self-conscious emotions to document various forms of emotional experiences that are involved in self-regulation (Giner-Sorolla 2001; Ramanathan and Williams 2007) and social interaction (Leary and Kowalski 1995; Miller 1996; Schlenker and Leary 1982). For example, in the context of self-regulation, one might feel the positive hedonic emotion of pleasure from indulgence (e.g., going to a pop concert, choosing a cheesecake) but, at the same time, may feel negative self-conscious emotions of guilt or regret about forgoing alternatives that are beneficial in the long run (e.g., studying for an exam, a healthy salad). Correspondingly, resisting temptation might lead to the negative hedonic emotions of sadness, disgust, or frustration, but also the positive self-conscious emotion of pride about not having given in (Giner-Sorolla 2001; Mukhopadhyay and Johar 2007). In social interaction, individuals might feel the negative self-conscious emotions of social anxiety or embarrassment when they think that others might expect them to behave in a certain manner or when they feel that others might have formed negative impressions of themselves (Leary 2007; Miller 1992). Building on this literature, the present research examines how visual perspectives may moderate the intensities of experienced hedonic and self-conscious emotions. To do so, we first turn to a deeper analysis of appraisals—the building blocks of emotional experiences.

Emotion Appraisals

Much research has demonstrated that subjective experiences of emotions are often influenced by how individuals appraise a given event (Arnold 1960; Ellsworth and Scherer 2003; Frijda 1986; Han et al. 2007; Lazarus 1991; Ortony et al. 1988; Roseman 2001; Scherer 1988; Weiner 1980, 1986). Indeed, Ortony et al. (1988, 23) describe emotions as "valenced reactions to events, agents or objects, with their particular nature being determined by the way the eliciting situation is construed." Emotion appraisals, defined as "immediate, intuitive evaluations of the environmental changes; used for distinguishing qualitatively among emotions" (Ellsworth and Scherer 2003, 572), may usefully be classified along a number of different appraisal dimensions. These include, for example, the extent to which an individual seeks reward or avoids punishment (motivational state), the extent to which the reward or punishment is present (situational state), whether the occurrence of an event is certain or not (certainty), whether an outcome is deserved in a particular situation (legitimacy), and whether the outcome is self-, other-, or circumstances-caused (agency; e.g., Roseman 1991; Smith and Ellsworth 1985). Various appraisal theories provide frameworks for understanding the relationship of appraisals and emotions and explain differences among different discrete emotions. The basic premise is that individuals' appraisals of recalled or anticipated episodes can form the components of the emotions they experience. Thus, a particular emotion is likely to be felt "when the requisite

appraisals of that emotion occur” (Ellsworth and Scherer 2003, 575). For example, anger is associated with appraisals of negative events that are certain in outcome and attributed to other persons. In contrast, guilt is associated with appraisals of certainty of negative events with attributions to oneself. It is important to note that appraisal theories do not claim that appraisals are necessary for emotions to be felt or that one has to cognitively appraise the situational circumstances before experiencing the corresponding emotions. Rather, emotions are described as “a combination of appraisals” (Ellsworth and Scherer 2003, 586) and indeed may be induced by factors other than appraisals (e.g., mimicry or social stereotyping). For our purposes, the important conclusion is that certain specific emotions are more likely to be experienced when the associated appraisals are salient.

The majority of research in this area has looked at how appraisals combine to give rise to various specific emotions, and the consequences thereof. In contrast, very little research has directly looked at factors that shape appraisals—what information individuals might attend to and use in interpreting events. Griner and Smith (2000) showed that individuals’ affiliative orientations increase the extent to which they value interpersonal aspects of situations that are of high degree of relevance to affiliative concerns. Thus, among highly affiliative participants, recalling a past experience or imagining oneself in a hypothetical affiliative situation leads them to appraise the situation based on motivational relevance. Consequently, they perceived the situation to be more personally relevant and reported a stronger feeling of interest. Ramanathan and Williams (2007) showed that individual differences in impulsivity influence the emotional experiences involved in self-regulation presumably because the difference in accessibility of pleasure-seeking goals among impulsive and prudent individuals leads them to focus on different aspects of information in self-regulatory contexts. The present research seeks to identify another factor that influences the extent to which these appraisals, which compose the emotions that are typically elicited from a certain situation, are used in interpreting events. In particular, we propose that visual perspectives, which guide how individuals attend to information, influence the way they appraise situations in terms of attending to the self versus the situation. As a result, we propose that visual perspectives influence people’s emotional responses to these situations.

The Effect of Visual Perspectives

Research on the role of visual perspectives in judgment and decision making posits that individuals’ access to different aspects of information may depend on which visual perspective they use to process information (Jones and Nisbett 1972). When people retrieve events from memory, either they may use an actor’s (or first-person) perspective to view the events, as if they were “in” the scenario to reexperience the events, or they may use an observer’s (or third-person) perspective to view themselves in the scenario, as if they were watching a movie of themselves. Research in social psychology has demonstrated the role of visual per-

spectives in attributions of events retrieved in autobiographical memories (Frank and Gilovich 1989; Jones and Nisbett 1972; Nigro and Neisser 1983). Observers were found to be more likely than actors to make dispositional attributions when retrieving past events from memory. Other research on the effects on behavior demonstrated that using an observer’s perspective to picture oneself engaging in a desired behavior is more likely to influence self-perception and increase the likelihood of performing the behavior than using an actor’s perspective (Libby et al. 2007; Storms 1973). These different effects of actors and observers on attributions and behaviors are due to the differences in information that actors and observers actively attend to. Actors tend to focus on situational circumstances and thus have “more direct, and more readily available access to feelings that accompany their actions” (Pronin and Ross 2006, 198). Observers, in contrast, tend to focus on the actor in the situation and thus are more likely than actors to form dispositional attributions and self-perception judgments based on the behavior observed (Nisbett and Wilson 1977; see also Bem 1972).

None of the above studies has examined how visual perspectives may influence the extent to which certain appraisals are used to interpret emotional experiences. In this research, we posit that the difference in focus of attention on information between actors and observers leads to differences in the cognitive appraisals individuals use to interpret emotion-eliciting situations, and consequently gives rise to differences in intensities of emotional reactions to these situations. Specifically, we propose that observers, who focus on the actor in the situation as if they were an external observer, are more likely to evaluate themselves from the point of view of others and make inferences about these evaluations. As a result, observers are likely to feel self-conscious emotions (e.g., embarrassment, guilt, pride, regret, and shame) more intensely than actors when in situations that elicit these emotions. As mentioned, individuals who choose to indulge rather than restrain themselves when faced with a self-control dilemma are likely to feel pleasure from choosing the indulgence coupled with guilt from doing something normatively inappropriate (Giner-Sorolla 2001; Mukhopadhyay and Johar 2007; Ramanathan and Williams 2007). If they use an observer’s perspective to view themselves performing this “bad” behavior, they might be more likely to think about how others would evaluate them than if they were to use an actor’s perspective to view the same behavior. This is likely to elicit more intense self-conscious feelings of guilt. In contrast, if they use an actor’s perspective to view the same behavior, they are more likely to attend to the situational circumstances (such as the temptation) and thus should experience more intense hedonic enjoyment from choosing to indulge.

A different pattern of results should obtain for those who choose restraint over indulgence. Here, individuals might perceive that they made a choice that provides benefits in the long run. As above, if they use an observer’s perspective, they should be more likely to think about how others might

evaluate this “good” behavior, thereby eliciting a more intense self-conscious feeling of pride than if they were to use an actor’s perspective to view the same behavior. In contrast, if they were to use an actor’s perspective, the greater focus on the situational circumstances should lead to a more intense hedonic experience of sadness about missing out on the indulgence opportunity. Thus, we predict that individuals are likely to experience stronger hedonic emotions when they use an actor’s rather than an observer’s perspective, whereas they experience stronger self-conscious emotions when they use an observer’s rather than an actor’s perspective to think about the event.

As noted earlier, our predictions are contingent on whether a given emotion is typically elicited in a given situation. In other words, we posit that varying visual perspectives can lead to differences in the intensities of the experienced emotions, not whether the emotions are felt or not. This is because visual perspectives are not emotion appraisals in and of themselves, but rather the lenses through which individuals view the emotion-eliciting situation. They influence the extent to which appraisals are used by influencing what information is attended to. Actor perspectives lead to greater attention to situational circumstances and therefore to greater intensity of hedonic emotions. In contrast, observer perspectives lead to greater attention to the self in the situation, leading to greater intensity of self-conscious emotions. We do not claim that visual perspectives have first-order effects on whether emotions are experienced or not. As Ortony et al. (1988, 34) aver, “the intensity of emotions is influenced by a number of variables, all of which *are present in* the construal of the situation that gives rise to the emotion in the first place” (emphases added). Hence, the use of a different visual perspective should not make someone feel an emotion that would not normally have been elicited. As noted earlier, appraisal theory does not claim that emotions are induced only after one cognitively appraises a situation (Keltner, Ellsworth, and Edwards 1993; see also Ellsworth and Scherer 2003). If it were so, and if visual perspectives were indeed appraisals, this would lead to different patterns of emotions being elicited depending on visual perspective. Thus, an “inappropriate” visual perspective should not lead to no activation of the relevant emotion. If someone is in a situation that elicits sadness, visual perspectives can influence how sad they feel; there is no logical basis to claim that they would feel angry or guilty instead of sad if they used a different perspective, because the given situation is typically associated with appraisals that in combination constitute sadness, rather than any other emotion. At most, at the margin, if the emotion is low in intensity, an inappropriate visual perspective may cause that emotion to be experienced at a level close to zero.

Summary

Our thesis is that visual perspectives moderate the experience of felt hedonic versus self-conscious emotions. In what follows, across three experiments, we demonstrate that visual perspectives influence the cognitive appraisals indi-

viduals use to interpret recalled or anticipated events and thereby their emotional reactions to these events. Experiment 1 first demonstrates that participants who imagine themselves choosing a vice over a virtue in a self-control dilemma feel more hedonic pleasure and less self-conscious guilt, whereas those who imagine themselves choosing a virtue over a vice feel more hedonic sadness and less self-conscious pride when imagining the event using an actor’s perspective rather than an observer’s perspective. Experiment 2 demonstrates similar patterns of effects of visual perspectives on hedonic and self-conscious emotions when participants recalled their own experiences of succumbing to or resisting temptations, and finds support for the mediating effect of cognitive appraisals. Finally, experiment 3 replicates similar patterns in a non-self-control-related situation, where participants feel the hedonic emotion of excitement as well as the self-conscious emotion of embarrassment. Across these studies, visual perspectives had an effect only on the emotions that the experience would normally elicit. That is, visual perspectives had no effect on emotions that are irrelevant to the concerned experience.

EXPERIMENT 1: EFFECTS OF VISUAL PERSPECTIVES ON FELT EMOTIONS

The objective of the first study was to examine the impact of visual perspectives on the emotional responses to a decision in a self-control scenario. Participants were asked to imagine that they had had to choose between going to a party and preparing for exams at home during a semester break in the past. They were then told that they had chosen one of the options, and were asked to imagine this decision using either an actor’s or an observer’s perspective. We expected that participants who were told that they had decided to party would feel negative self-conscious emotions (such as guilt) about not studying for the exam but positive hedonic emotions (such as excitement and joy) about having fun at the party. More importantly, these effects should be qualified by the visual perspective taken: those who took an actor’s perspective to imagine their decision should experience more intense positive hedonic emotions but less intense negative self-conscious emotions than those who took an observer’s perspective. In contrast, those who were told they had decided to study at home should feel positive self-conscious emotions (e.g., pride, relief) because they made the “right” choice, coupled with negative hedonic emotions (e.g., sadness, sorrow) at missing out. This should again be moderated by the visual perspective taken: those who took an actor’s perspective should experience less intense positive self-conscious emotions but more intense negative hedonic emotions than those who took an observer’s perspective.

Method

Two hundred and eighty-nine undergraduate students at the Hong Kong University of Science and Technology were randomly assigned across conditions in a 2 (choice: going

to a party vs. studying for an exam) \times 2 (visual perspectives: actor vs. observer) between-subjects design. Participants were told that the study was about students' imagination and artistic ability. On this pretext, they were told that they would first do a simple exercise to practice imagination skills before moving on to the main task regarding imagination and art. The first exercise was the visual perspective manipulation task, used by Pronin and Ross (2006), and the second drawing task was created by us to strengthen the manipulation. Participants in the actor's perspective conditions were given the following instruction: "Please take a moment to form an image of taking the local subway. When you form the image, please see the scene from your original point of view (not as an external observer would see it). You do not see yourself in the image because it was as though you are looking at the event through your own eyes. You are as if 'in' the scenario, as if you are taking the subway." In contrast, participants in the observer's perspective conditions were given a similar scenario with the following instruction: "Please take a moment to form an image of taking the local subway. When you form the image, please see the scene as an external observer might see it (not from your original point of view). You see yourself in the image because it is as if you are an observer seeing yourself in the scene, as if someone is making a movie of you."

After 1 minute had passed, the experimenter asked participants to turn to the next page of the questionnaire. Participants answered three simple multiple-choice questions, including (1) whether they were standing or sitting, (2) whether it was in the morning, afternoon, or evening, and (3) what they were feeling and thinking. Five options were provided in the last question. The wording of these options was varied across visual perspectives conditions. For example, one item in the actor condition read, "I am reading a book and thinking," whereas in the observer condition, the corresponding item was "I see myself reading a book and thinking."

Next, participants moved on to the main task, which was purportedly about testing their imagination and artistic quality. They were asked to imagine a scenario that occurred during a midsemester break in the past. (We manipulated the scenario to be either "last week" or "5 years ago," but this had no significant effect so we report our results after pooling across temporal distance conditions.) Participants were given similar visual perspectives instructions as in the practice exercise. That is, actors were told to "see the scene through your eyes" as if "you are 'in' the scenario" whereas observers were given instructions such as "see the scene as an external observer might see it" and "you see yourself in the image, as if someone is making a movie of you." The scenario was the same for all participants: "It was the midsemester break. You needed to prepare for an exam that would be held after the break. At the same time, your friends called you out for a party. You had to make a choice between studying for the exam at home, and going out for a party with your friends." The final choice, which was varied across

conditions, was described as either "You chose to go out for a party with your friends" or "You chose to stay home and study for the exam."

To further strengthen the manipulation of visual perspectives, we created a drawing task in which we asked participants to draw about thoughts or images they might have during the imagination. On the next page of the booklet, participants were told that it would be helpful to draw the mental images that they might have in their mind in order to facilitate their imagination. They were asked to draw the images that were created in their mind while they were imagining the scenario in the space given below the instruction. They were reminded again of the visual perspective they were instructed to use. After 5 minutes had elapsed, participants were asked to stop drawing. They were then given another set of questionnaires and asked to indicate the feelings that they had when they were imagining the midsemester break scenario. They were presented with an alphabetized 19-item emotion scale, including *angry, contemptuous, disappointed, distressed, disgusted, excited, frustrated, grateful, guilty, hopeful, joyful, proud, regretful, relieved, sad, satisfied, shameful, sorrowful, and upset with myself*. These specific emotion items were selected from similar sets of items used by Giner-Sorolla (2001), Izard (1977), Mukhopadhyay and Johar (2007), Ramanathan and Williams (2007), and Williams and Aaker (2002). Participants indicated the degree to which they experienced each emotion given their decision to go to the party or study for the exam (where 1 = not at all, 2 = a little, 3 = moderately, and 4 = strongly; Richins 1997).

As a manipulation check, participants were then asked to select one out of two descriptions that best described the image they had formed about the midsemester break scenario. We used the materials employed by Pronin and Ross (2006) to assess the visual perspective that participants used:

- A. I saw the scene from my original point of view (not as an external observer would see it). I did not see myself in the image, since it was as though I was looking at the event through my own eyes.
- B. I saw the scene as an observer might see it (not from my original point of view). I saw myself in the image, since it was as though I was looking at the event through the eyes of an observer.

Participants also indicated the extent to which they used an actor's vs. observer's perspective (1 = mostly A, 4 = mixture, 7 = mostly B). Low numbers would indicate that the images were formed using an actor's perspective, whereas high numbers would indicate that the images were formed using an observer's perspective. Then they indicated the extent to which (a) the images they had formed about the scenario were clear, and (b) the thoughts and feelings they had about the scenario were clear (1 = not at all clear, to 7 = very clear). Finally, we measured their chronic impulsivity using the Consumer Impulsiveness Scale (Puri 1996), which had no significant effects in this as well as the remaining experiments (p 's $>$.22).

TABLE 1
EXPERIENCED EMOTIONS AS A FUNCTION OF VISUAL PERSPECTIVES AND DECISIONS (EXPERIMENT 1)

	Going to a party		Studying for exam	
	Actor perspective	Observer perspective	Actor perspective	Observer perspective
Positive hedonic emotions	2.48 ^a	2.03 ^b	1.49 ^c	1.43 ^c
Positive self-conscious emotions	1.56 ^a	1.56 ^a	1.64 ^a	2.23 ^b
Negative hedonic emotions	1.78 ^a	1.72 ^a	2.50 ^b	1.85 ^a
Negative self-conscious emotions	2.38 ^a	2.70 ^b	1.31 ^c	1.49 ^c

NOTE.—Means in the same row having different superscripts differ at $p < .05$.

Results

Manipulation Checks. A logistic regression treating the self-reported visual perspective that participants used as a function of instructed visual perspectives and choice revealed a significant main effect of the instructed visual perspective (proportion using an observer's perspective: $M_{\text{actor}} = .03$ vs. $M_{\text{observer}} = .87$; Wald(1) = 28.35, $p < .001$). Corroborating this, a 2 (visual perspective) \times 2 (decision) ANOVA on the continuous measure of visual perspective also revealed a significant main effect of the instruction, such that participants in the actor condition were more likely to indicate that they used an actor's perspective to imagine the scenario than those in the observer conditions ($M_{\text{actor}} = 2.15$ vs. $M_{\text{observer}} = 6.22$; $F(1, 285) = 1,816.31$, $p < .001$). No other effects were significant. There were no effects on the extent to which participants formed clear mental images and had clear thoughts and feelings about the scenario ($p > .14$).

Emotions Felt. Based on the literature on self-control-related emotions (Giner-Sorolla 2001; Leary 2007; Mukhopadhyay and Johar 2007; Ramanathan and Williams 2007), we hypothesized four latent constructs representing positive hedonic (excited and joyful), positive self-conscious (proud and relieved), negative hedonic (sad, distressed, and sorrowful), and negative self-conscious (guilty) emotions that (1) are typically experienced as hedonic and self-conscious emotions when involved in self-control dilemmas, and (2) were relevant in the given scenario. Thus, we considered only self-control emotion items that are commonly considered hedonic and self-conscious emotions (e.g., excitement, pride, sadness, and guilt) and dropped those that might be specific to given experimental samples or investigations (e.g., "satisfied" was categorized as a self-conscious emotion in shopping scenarios studied by Mukhopadhyay and Johar [2007], but as a hedonic emotion in food indulgence scenarios by Ramanathan and Williams [2007]; items with more than 50% of participants indicating "not at all" or "a little" across conditions were also excluded as in Giner-Sorolla [2001, 213]). The eight selected hedonic and self-conscious emotions, which are conceptually related to these four latent emotion constructs, were submitted to a confirmatory factor analysis. As expected, results supported the underlying four-factor structure (Bentler's CFI = .95; Bentler and Bonett's (1980) NNI = .90; Bentler and Bonett's (1980) NFI = .92;

RMSEA estimate = .069; $\chi^2 = 33.40$, $p < .01$; Hu and Bentler 1999). We calculated scores for each of the four emotions by averaging the items that loaded on these factors. The patterns reported below remain substantively unchanged if we use factor scores or the highest loading single item instead of these averages. Moreover, the same factor structure emerges if all emotion items are subjected to an exploratory factor analysis (as in Mukhopadhyay and Johar 2007), and similar effects of visual perspectives are observed.

The emotions measures were submitted to a 2 \times 2 \times 4 mixed ANOVA with visual perspectives (actor vs. observer) and decisions (succumb vs. resist) as between-subject factors and the four emotions as a repeated measure. The expected overall three-way interaction ($F(3, 283) = 8.01$, $p < .001$; see table 1) as well as a two-way interaction between choice and emotions ($F(3, 283) = 95.69$, $p < .001$) were revealed. Follow-up contrasts on the two-way interaction indicated as expected that when the choice was to go to a party, participants felt more positive hedonic emotions ($M_{\text{party}} = 2.22$ vs. $M_{\text{exam}} = 1.45$; $F(1, 285) = 72.03$, $p < .0001$; $\omega^2 = .33$) and more negative self-conscious emotions ($M_{\text{party}} = 2.57$ vs. $M_{\text{exam}} = 1.43$; $F(1, 285) = 154.90$, $p < .0001$; $\omega^2 = .51$) than when the choice was to study for an exam. In contrast, when the choice was to study for an exam, participants felt more positive self-conscious emotions ($M_{\text{exam}} = 2.04$ vs. $M_{\text{party}} = 1.56$; $F(1, 285) = 27.27$, $p < .0001$; $\omega^2 = .15$) and more negative hedonic emotions ($M_{\text{exam}} = 2.06$ vs. $M_{\text{party}} = 1.75$; $F(1, 285) = 11.80$, $p < .001$, $\omega^2 = .07$) than when the choice was to go to a party.

More importantly, to examine our propositions about the effect of visual perspectives on intensity of hedonic and self-conscious emotions participants experienced, we conducted follow-up tests for each choice separately. As predicted, when choosing to go to a party, participants felt more positive hedonic emotions ($M_{\text{actor}} = 2.48$ vs. $M_{\text{observer}} = 2.03$; $F(1, 285) = 11.88$, $p < .001$, $\omega^2 = .07$) but less negative self-conscious emotions ($M_{\text{actor}} = 2.38$ vs. $M_{\text{observer}} = 2.70$, $F(1, 285) = 6.24$, $p < .01$, $\omega^2 = .03$) when taking an actor's rather than an observer's perspective. Importantly, there was no effect of visual perspective on positive self-conscious ($M_{\text{actor}} = 1.56$ vs. $M_{\text{observer}} = 1.56$) and negative hedonic emotions ($M_{\text{actor}} = 1.78$ vs. $M_{\text{observer}} = 1.72$; F 's < 1). This was evidenced by the two-way interaction between visual perspectives and emotions ($F(3, 146) = 5.35$, $p < .01$).

When the choice was to study for the exam, there was an interaction between visual perspectives and emotions ($F(3, 135) = 17.18, p < .001$), such that participants felt less negative hedonic emotions ($M_{\text{actor}} = 2.50$ vs. $M_{\text{observer}} = 1.85; F(1, 285) = 21.12, p < .0001, \omega^2 = .12$) and more positive self-conscious emotions ($M_{\text{actor}} = 1.64$ vs. $M_{\text{observer}} = 2.23; F(1, 285) = 17.32, p < .0001; \omega^2 = .10$) when they took an observer's rather than an actor's perspective. There was no main effect of visual perspectives on positive hedonic and negative self-conscious emotions (F 's < 1). There was also no effect of visual perspectives on emotions (e.g., contemptuous, hopeful) that are unlikely to be associated with self-control dilemmas (F 's < 1).

Discussion

Consistent with previous research, results demonstrate that both hedonic and self-conscious emotions were experienced in the self-control scenario. Participants whose decision was choosing a vice reported feeling both positive hedonic emotions of excitement and negative self-conscious emotions of guilt, whereas those whose decision was choosing a virtue reported feeling both negative hedonic emotions of sadness and positive self-conscious emotions of pride. More interestingly, in both of these decisions, visual perspectives systematically intensified one type of emotion. Using an actor's perspective to process the decision increased the intensity of positive hedonic emotions of excitement when the choice was a vice and the intensity of negative hedonic emotions of sadness when the choice was a virtue. In contrast, using an observer's perspective to process the decision increased the intensity of negative self-conscious emotions of guilt when the choice was a vice and the intensity of positive self-conscious emotions of pride when the choice was a virtue. These results support our proposition that visual perspectives differentially influence the intensities of hedonic versus self-conscious emotions that are typically elicited from the situation, but not emotions that are unlikely to be associated with it (e.g., contemptuous, hopeful). It is also noteworthy that the temporal distance manipulation had no effect, supporting Pronin and Ross's (2006) suggestion that the effects of visual perspectives manifest themselves independently of temporal construal. Indeed, we replicated these patterns in another experiment where we again observed no effect of construal level, this time as measured using the Behavioral Identification Scale (Vallacher and Wegner 1987).

In experiment 2, we examine whether the observed effects of visual perspectives influence the intensities of hedonic and self-conscious emotions that participants experience from a recalled situation. In particular, we asked participants to recall an experience in the past when they were faced with a self-control dilemma, and their decision was either succumbing to or resisting the temptation. Participants then reported the extent to which they felt the hedonic and self-conscious emotions that are characteristic of self-control dilemmas in general. In addition, they also reported the extent to which they felt embarrassed, a self-conscious emotion

that is not generally associated with self-control. We expected that visual perspectives should have an impact on the relevant hedonic and self-conscious emotions, similar to what we observed in experiment 1, and should have no effect on the irrelevant emotions not typically associated with self-control dilemmas. Further, to examine the process underlying these effects, we also measured the appraisals participants used when thinking about the event.

EXPERIMENT 2: APPRAISALS IN RECALLED SELF-CONTROL DILEMMAS

Method

Seventy-five undergraduate students at the National University of Singapore participated in exchange for course credit. The study employed a 2 (visual perspectives) \times 2 (decision: resisting vs. succumbing to temptations) between-subjects design. Participants were told that the study was about understanding different kinds of experiences from late adolescence. In the resisting temptations condition, participants were asked to recall an event where they chose something that was "not tempting but very beneficial over a very tempting alternative that is much less beneficial in the long run." In contrast, in the succumbing to temptations condition, participants were asked to recall an event where they chose something that was "very tempting but not beneficial in the long run, over an alternative that was not tempting but very beneficial in the long run." Participants were asked to use either an actor or an observer perspective to visualize their memory, using standard instructions identical to those in the literature (Libby, Eibach, and Gilovich 2005; Nigro and Neisser 1983; Pronin and Ross 2006). After 2 minutes had passed, all participants were asked to turn to the next page of the questionnaire, where they reported the extent to which they felt each of five specific emotions ("I feel . . ." excited; embarrassed; sad; guilty; proud; each on a 7-point scale, 1 = not at all, 7 = extremely). As process measures of appraisals, participants indicated the extent to which they thought most about features in the situational circumstances or how others might evaluate them ("I thought most about . . ." 1 = the pleasure of enjoying the tempting indulgence/features of the tempting indulgence/how bad it would be if I missed out on the tempting indulgence; 4 = neither; 7 = how other people might evaluate me/judging myself from the perspective of [real or imaginary] others/how other people might assess the desirability of my behavior; $\alpha = .87$). They then responded to control measures (carefulness/distraction/being focused on the tasks; 1 = not at all, 7 = very much), and, as a check to ensure that they had recalled the types of events we needed (succumbing to vs. resisting temptations), participants also wrote about the event they recalled (three participants did not report experiences featuring self-control dilemmas, and their data were dropped). Examples of recalled restraint included "choosing a bottle of green tea over a soft drink," "deciding to study hard for A-levels instead of going for holidays," "choosing not to go to a nightclub so that I can attend the morning lessons

TABLE 2

EXPERIENCED EMOTIONS AND PROCESS MEASURES AS A FUNCTION OF VISUAL PERSPECTIVES AND RECALLED DECISIONS (EXPERIMENT 2)

	Succumbing to temptations		Resisting temptations	
	Actor perspective	Observer perspective	Actor perspective	Observer perspective
Excited	4.86 ^a	2.86 ^b	3.41 ^b	3.08 ^b
Embarrassed	2.21 ^a	2.07 ^a	1.77 ^a	1.64 ^a
Sad	2.57 ^a	2.57 ^a	4.96 ^b	2.32 ^a
Guilty	3.71 ^a	4.93 ^b	2.86 ^a	2.52 ^a
Proud	2.29 ^a	1.93 ^a	3.32 ^b	4.32 ^c
Appraisals	3.26 ^a	5.24 ^b	2.97 ^a	5.28 ^b

NOTE.—Means in the same row having different superscripts differ at $p < .05$. Lower (higher) appraisal numbers indicate greater reliance on an actor's (observer's) perspective.

the next day," and "choosing not getting into a relationship with a girl and focus on study." Examples of recalled events of succumbing to temptation included "not going for a study workshop but going out with friends," "had only \$30 but chose buying unnecessary clothes over an important textbook," and "watching a sport game despite missing important lessons." Finally, all participants responded to a demand check (no one correctly guessed the purpose of the study) and were debriefed.

Results

Manipulation Checks and Control Measures. A logistic regression on the type of visual perspective taken, using visual perspective instruction, decision, and their interaction as predictors revealed a main effect of visual perspective instruction ($Wald(1) = 13.02, p < .001$). Participants in the actor's (observer's) perspectives conditions were more likely to take an actor's (observer's) perspective than those in the observer's (actor's) perspective conditions (proportions: $M_{actor} = .20$ vs. $M_{observer} = .72$). The continuous measure for the visual perspective used revealed a similar effect ($M_{actor} = 2.10$ vs. $M_{observer} = 4.97; F(1, 71) = 191.3, p < .001$). No other effects were significant (all F 's < 1). There were also no effects on the extent to which participants were careful, distracted, or focused in the task (p 's $> .30$).

Emotions Felt. As expected, a mixed ANOVA with visual perspective (actor vs. observer) and decision (restrain vs. succumb) as between-subjects factors and emotions (the five specific emotions) as the within-subjects factor revealed a significant three-way interaction of visual perspective, type of recalled event, and emotions ($F(4, 68) = 6.24, p < .001$). Follow-up contrasts showed that the perspectives taken produced an impact on the emotional experiences that participants recalled. When recalling succumbing to a temptation, participants felt more excitement ($M_{actor} = 4.86$ vs. $M_{observer} = 2.86; F(1, 71) = 12.39, p < .001, \omega^2 = .24$) and less guilt ($M_{actor} = 3.71$ vs. $M_{observer} = 4.93; F(1, 71) = 4.57, p < .05, \omega^2 = .09$) if they took an actor's rather than an observer's perspective. There was no effect of visual perspective on sadness, pride, or embarrassment (F 's < 1). In contrast, when recalling resisting a temptation, participants

felt more sadness ($M_{actor} = 4.96$ vs. $M_{observer} = 2.32; F(1, 71) = 35.94, p < .0001, \omega^2 = .44$) but less pride ($M_{actor} = 3.32$ vs. $M_{observer} = 4.32; F(1, 71) = 5.20, p < .05, \omega^2 = .07$) if they took an actor's versus an observer's perspective. Here, no effects of visual perspectives were observed on excitement, guilt, and embarrassment (F 's < 1). Finally, across conditions, there was no effect on the extent to which participants felt embarrassed ($M = 1.85$; all F 's < 1). See table 2.

Appraisals. A 2 (visual perspective: actor vs. observer) \times 2 (decision: restrain vs. succumb) ANOVA on the appraisal measure revealed the expected significant main effect of visual perspective ($M_{actor} = 3.08$ vs. $M_{observer} = 5.27; F(1, 71) = 56.99, p < .001, \omega^2 = .32$). Participants who used an actor's perspective were more likely to think about how they might enjoy the tempting indulgence (i.e., tended to think less about how others might evaluate them) than those who used an observer's perspective. There was no effect of whether participants thought about succumbing to or resisting temptations ($F < 1$).

Mediation. Bootstrap analyses (Preacher and Hayes 2004, 2008; Zhao, Lynch, and Chen 2010) revealed that appraisals mediated the effect of visual perspectives taking on emotional experiences. On recalling succumbing, the impact of visual perspectives on appraisals ($b = 1.98, SE = .32, p < .001$) and the impact of appraisals on emotional experiences (excited: $b = -1.24, SE = .18, p < .001$; guilty: $b = .63, SE = .26, p < .03$) were both significant. Correspondingly, on recalling restraint, the impact of visual perspectives on appraisals ($b = 2.31, SE = .39, p < .001$) and the impact of appraisals on emotional experiences (sad: $b = -.42, SE = .16, p < .01$; proud: $b = .55, SE = .13, p < .001$) were both significant. More importantly, the indirect effect of visual perspectives on emotional experiences through appraisals was significant on recalling succumbing (excited: $b = -2.45, SE = .52, p < .001$; a 95% CI is from -3.62 to -1.40 ; guilty: $b = 1.24, SE = .54, p < .02$; a 95% CI is from $.27$ to 3.00) as well as restraint (sad: $b = -.98, SE = .40, p < .02$; a 95% CI is from -2.01 to $-.14$; proud: $b = 1.26, SE = .36, p < .001$; a 95% CI is from $.55$ to 2.07) whereas the direct effect of visual per-

spectives was reduced on succumbing (excited: $b = .44$, $SE = .46$, $p > .30$; guilty: $b = -.02$, $SE = .68$, $p > .30$) and restraint (sad: $b = -1.66$, $SE = .57$, $p < .01$; proud: $b = -.26$, $SE = .45$, $p > .30$). These results demonstrate that the effect of visual perspectives on the intensity of emotions experienced was fully mediated by the appraisal taken for the emotions excitement, guilt, and pride, and partially mediated for sadness.

Discussion

Experiment 2 thus demonstrates that visual perspectives influence the emotions that people feel from their own real recalled experiences. Moreover, the effect of visual perspectives was mediated by the appraisals participants used. Those who took an actor's perspective were more likely to think about features of the situational environment, thereby stimulating hedonic emotions, whereas those who took an observer's perspective were more likely to think about how others might evaluate them, which heightens self-conscious emotions. Again, visual perspectives had no effect on emotions that are not typically involved in self-regulation (e.g., embarrassment, a self-conscious emotion), thus confirming that effects of visual perspectives on emotional experiences occur only when these emotions are typically elicited from the situation participants thought about.

One might argue that the effects of visual perspectives on hedonic and self-conscious emotions that we observed in experiments 1 and 2 were due to idiosyncratic characteristics associated with self-control scenarios or with the specific types of emotions involved (e.g., guilt, happiness, sadness, and pride). To evaluate the possibility of this alternative explanation, in experiment 3, we extend our investigation to a non-self-control-related context, and test whether visual perspectives can influence the intensity of other types of hedonic emotions such as excitement, and self-conscious emotions such as embarrassment, in a situation that is indeed associated with these emotions and not with others such as guilt or sadness.

EXPERIMENT 3: APPRAISALS IN EMBARRASSING AND EXCITING MOMENTS

The goal of experiment 3 was to test the role of visual perspectives in the appraisals and experience of emotions arising from a non-self-control-related situation that consumers might encounter in daily life. In particular, in a situation in which a hedonic feeling of excitement and a self-conscious feeling of embarrassment are typically experienced, we examine whether visual perspectives produce similar effects on these emotions as observed in the previous studies. We asked participants to imagine themselves queuing outside a store for 8 hours awaiting the release of a gadget that they had been wanting to buy for months. As they queued, they saw news reporters nearby, reporting on this launch. As before, participants visualized the scenario using either

an actor's or an observer's perspective and reported their emotions and the appraisals they used. We expected that this scenario should lead to feelings of excitement at the thought of the gadget, coupled with embarrassment at the thought of the reporters.

A pretest ($n = 20$) confirmed that the scenario we used elicited stronger feelings of excitement ($M_{\text{excited}} = 4.90$) and embarrassment ($M_{\text{embarrassed}} = 4.05$) than other feelings, including guilt, pride, and sadness (M 's < 2.60 ; $t(20) > 2.47$, $p < .02$; "Right now, I feel . . ." excited, guilty, embarrassed, sad, and proud; each on 7-point scales, 1 = not at all, 7 = very much). Convergent evidence about the appropriateness of this scenario came from open-ended thought protocols. Respondents claimed that being in such a situation would make them feel excited as well as embarrassed (e.g., "I felt embarrassed but at the same time excited to get the gadget," "The fact that it is broadcasted on TV makes it 10 times embarrassing," "I try to avoid being caught on cameras as it will be embarrassing for friends to know that I am such a fanatic," "I would hide my face," "I feel excited"; "It is something I anticipate a lot," "so excited," "very excited to get it"). As before, we predict that in this situation, actors should think more about the gadget than about how others might evaluate them, whereas observers should think more about how others might evaluate them and the inferences others might make when observing their behavior. Thus, actors should feel more excitement and less embarrassment than observers when thinking about the same scenario.

Method

Twenty-six undergraduate students at the National University of Singapore participated for course credit. They were told that the study was about how people process information of the sort they encounter in daily life. Participants were asked to imagine that they had been queuing outside a gadget store for 8 hours awaiting the release of a gadget that they had wanted to buy for months. There were many people queuing for the gadget, and reporters from local TV news channels were present and reporting on this. Given this scenario, we manipulated the use of visual perspectives as before, using the same procedures employed by Pronin and Ross (2006).

Participants read the scenario and rated the intensities of hedonic and self-conscious emotions they felt, namely, the four hedonic and self-conscious emotions from before (excitement, guilt, pride, and sadness), as well as embarrassment that is specific to this situation (each on a 7-point scale where 1 = not at all, 7 = extremely). As process measures of appraisals, participants again indicated the extent to which they thought most about features in the surrounding environment or how others might evaluate themselves when imagining the scenario ("When thinking about the scenario, I thought most about. . ." 1 = the pleasure of getting the gadget/what was happening in the queue/features of this gadget I was going to buy; 4 = neither; 7 = how people who saw me on TV news might evaluate me/judging myself

from the perspective of real or imaginary others/how people who saw me on TV news might assess the desirability of my behavior; $\alpha = .75$), manipulation checks as in previous experiments, and control measures (carefulness in doing the task, felt distraction, seriousness in the task, how focused they were in the task; 1 = not at all, 7 = very much). Participants were debriefed after completing a demand check. No participant guessed the purpose of the study correctly.

Results

Manipulation Checks and Control Measures. Participants across the two visual perspective conditions did not differ in the extent to which they were careful in the task, felt distracted, or were focused on the task (all p 's > .20). As expected, a logistic regression on the visual perspective participants used revealed a main effect of visual perspective instruction. Participants in the actor's perspective condition were more likely to use an actor's perspective than observers, whereas those in the observer's perspective condition were more likely to use an observer's perspective to view the scenario (proportion: $M_{\text{actor}} = .07$ vs. $M_{\text{observer}} = .92$; Wald(1) = 11.36, $p < .001$). A one-way ANOVA on the continuous measure of the visual perspective used also showed similar results ($M_{\text{actor}} = 2.50$ vs. $M_{\text{observer}} = 5.03$; $F(1, 24) = 17.72$, $p < .001$). No effect was significant on any of control measures (carefulness in doing the task, felt distraction, seriousness in the task, and how focused participants were; all $p > .20$).

Emotions Felt. A 2 (visual perspectives, between subjects) \times 5 (emotions, within subjects) mixed ANOVA on felt emotions revealed an expected significant two-way interaction ($F(4, 21) = 9.48$, $p < .001$). Follow-up contrasts showed that participants felt the hedonic emotion of excitement more keenly when they used an actor's than an observer's perspective ($M_{\text{actor}} = 6.00$ vs. $M_{\text{observer}} = 4.67$; $F(1, 24) = 6.96$, $p < .01$, $\omega^2 = .18$) to imagine themselves queuing for 8 hours awaiting the gadget release. However, participants felt the self-conscious emotion of embarrassment more intensely when they used an observer's rather than an actor's perspective ($M_{\text{actor}} = 2.00$ vs. $M_{\text{observer}} = 4.50$; $F(1, 24) = 24.48$, $p < .001$, $\omega^2 = .47$). Visual perspectives had no effect on the extent to which participants felt sad ($M = 1.73$), guilty ($M = 2.04$), or proud ($M = 3.15$; all $p > .27$): emotions that are not relevant in the present case. See table 3.

Appraisals. We expected that participants' appraisals of the situation should depend on the visual perspective they used to process the scenario. Those who use an actor perspective should think more about situational circumstances whereas those who use an observer perspective should think more about how others might evaluate them. A one-way ANOVA on the appraisal measure with visual perspective manipulation as the independent variable revealed the expected main effect ($F(1, 24) = 43.88$, $p < .001$, $\omega^2 = .60$).

TABLE 3

EXPERIENCED EMOTIONS AND PROCESS MEASURES AS A FUNCTION OF VISUAL PERSPECTIVES (EXPERIMENT 3)

	Visual perspectives	
	Actor perspective	Observer perspective
Excited	6.00 ^a	4.67 ^b
Embarrassed	2.00 ^a	4.50 ^b
Sad	1.64 ^a	1.83 ^a
Guilty	2.14 ^a	1.92 ^a
Proud	2.93 ^a	3.42 ^a
Appraisals	2.19 ^a	5.06 ^b

NOTE.—Means in the same row having different superscripts differ at $p < .05$. Lower (higher) appraisals numbers indicate greater reliance on an actor's (observer's) perspective.

Participants who used an actor's perspective thought more about situational circumstances than those who used an observer's perspective, or, in other words, observers thought more about how others might evaluate them ($M_{\text{actor}} = 2.19$ vs. $M_{\text{observer}} = 5.06$).

Mediation. Bootstrap analyses again confirmed that the impact of visual perspectives on hedonic and self-conscious emotional experiences was mediated by the appraisals used. First, the effects of visual perspectives on appraisals ($b = 2.87$, SE = .43, $p < .001$) and the impact of appraisals on emotions experienced (excited: $b = .57$, SE = .23, $p < .02$; embarrassed: $b = .30$, SE = .13, $p < .04$) were both significant. More importantly, the indirect effect of visual perspectives on emotions experienced through appraisals was significant (excited: $b = -1.62$, SE = .68, $p < .02$; a 95% CI is from -4.11 to $-.42$; embarrassed: $b = .86$, SE = .40, $p < .03$; a 95% CI is from .20 to 1.52), while the direct effect of visual perspectives on emotions experienced was reduced (excited: $b = .29$, SE = .82, $p > .30$; embarrassed: $b = 1.64$, SE = .49, $p < .01$).

Discussion

Experiment 3 thus further demonstrated that visual perspectives influence how people appraise emotion-inducing situations and consequently the intensities of hedonic versus self-conscious emotions. Actors were more likely to think about characteristics in the situational environment and thus were more likely to experience hedonic feelings of excitement about getting the gadget. In contrast, observers were more likely to think about how real or imaginary others might evaluate them and therefore were more likely to experience self-conscious feelings of embarrassment. Visual perspectives, however, had no impact on the intensities of other hedonic emotions (sadness) and self-conscious emotions (guilt and pride), which are not relevant to the situation. This again suggests that the effects of visual perspectives on emotional experiences occur only for those emotions typically elicited from a given situation.

GENERAL DISCUSSION

Three experiments provide strong support for the proposition that visual perspectives influence recalled and anticipated emotional experiences. Experiment 1 showed that participants reported a higher intensity of hedonic emotions when they took an actor's (compared to an observer's) perspective to view their choice in an anticipated self-control scenario, and they reported a higher intensity of self-conscious emotions when they took an observer's (compared to an actor's) perspective to view their choice in the same scenario. Experiments 2 and 3 replicated this basic pattern and demonstrated that the cognitive appraisals participants used to view a recalled event mediated the effects of visual perspectives on felt emotions. Whether it was recalling past experiences of succumbing to or resisting temptation (experiment 2) or imagining a hypothetical embarrassing and exciting event (experiment 3), actors were more likely to think about situational circumstances and thus felt more intense hedonic emotions than observers, whereas observers were more likely to think about how others might evaluate them and thus felt more intense self-conscious emotions than actors. Importantly, visual perspectives only influenced the intensities of emotions that are typically elicited in a given situation and had no effect on the intensities of emotions that are not likely to be elicited in the situation (experiments 2–3).

Theoretical Implications

The emotions generated from thinking about a particular event are often influenced by the way individuals interpret the event. Researchers have identified different dimensions along which such appraisals may operate (Arnold 1960; Frijda 1986; Han et al. 2007; Lazarus 1991; Ortony et al. 1988; Roseman 2001; Scherer 1988; Weiner 1980, 1986). In this research, we posit that the differential attention that actors and observers pay to information can influence their appraisals of events, causing systematic variations in the intensities of the emotions they experience. Actors tend to focus on situational circumstances and therefore are more likely to experience more direct or hedonic reactions elicited by features of these situational circumstances. Observers, however, tend to focus more on observing the behaviors performed by actors in the situation and form self-perception judgments based on these behaviors. Thus, more indirect, self-conscious emotions are likely to be elicited from these behavioral observations. In effect, when individuals appraise an event using an actor's perspective, they experience hedonic emotions more strongly than when they view the same event from an observer's perspective. In contrast, when individuals experience the same event from an observer's perspective, they experience self-conscious emotions more strongly as compared to an actor's perspective.

This research also extends the literature on the role of visual perspectives in information processing. Previous research has shown that the difference in focus of attention on information between actors and observers leads to dif-

ference in their tendency to form dispositional attributions (e.g., Frank and Gilovich 1989; Jones and Nisbett 1972; Libby et al. 2007; Nigro and Neisser 1983). Not much research, however, has looked at their role in subjective experiences. The present work is one of the first to demonstrate that visual perspectives play a role in cognitive appraisals of events that elicit emotions. Our findings suggest that visual perspectives influence individuals' subjective experiences toward the situations that information depicts. Experiments 1 and 2 showed that actors and observers experience different forms of emotions toward the same decision in a self-control scenario. Actors who imagine themselves being in the scenario felt more intense hedonic emotions whereas observers who watch themselves in the scenario felt more intense self-conscious emotions toward the same situation. Our hypothesis about the impact of visual perspectives on cognitive appraisal was further supported by results of experiments 2 and 3, which showed that the use of visual perspectives influences the appraisals individuals use to interpret the same event. Notably, across experiments, we observed no systematic effects of either manipulated temporal distance or measured construal level.

The present work also extends the literature on imagery. Although the role of visual imagery in information processing is well established, previous studies have generally focused on dispositional or situational conditions under which individuals form imaginations (Kosslyn 1976; for a review, see Wyer, Hung, and Jiang 2008). Not much is known, however, about factors that influence the content of their imaginations and the subsequent impact on emotions elicited from these imaginations (but see Hung and Wyer 2009, 2011; Jiang and Wyer 2009). The present work shows that the visual perspectives that individuals take to process information can influence the way they imagine themselves in the situation and thereby influence how they appraise the situation. We show that the influence of visual perspectives on intensity of emotions depends in part on the nature of emotions. Actors tend to feel more hedonic emotions, and observers tend to feel more self-conscious emotions because of the differential access to information actors and observers have for interpreting the same event.

Importantly, the above effects are only observed for emotions that are typically elicited from a particular situation, indicating that visual perspectives moderate the intensity of emotions experienced, but not whether the emotions are experienced or not. That is, visual perspectives influence the use of appraisals but are not appraisals themselves. If visual perspectives were indeed appraisals, then there should be a correspondence such that only a specific visual perspective should lead to a particular emotion (i.e., an emotion that is experienced given an actor's perspective should not be felt given an observer's perspective). This would imply that even in the presence of an "appropriate" situational appraisal (e.g., having succumbed to temptation), the corresponding emotion (in this case, guilt) would not be experienced if the visual perspective was "inappropriate" (here, actor). We do not see this in our data. Indeed, if this were the case, we

should have observed a main effect of visual perspectives and no effect of “decision” (which in our experiments leads to appraisals) on emotions.

Contributions and Future Research

The key contribution of this research is in bringing together the literatures on visual perspectives, cognitive appraisals, and emotions. Emerging research findings on emotions suggest that the nature of emotions is more complex than previously assumed. Emotions do not only differ in valence, but also differ in several other dimensions (Cohen et al. 2008; Han et al. 2007; Leary 2007). The dimensions of interest in the present research are that emotions can differ in the extent to which they are more hedonic and more deliberate in nature (Giner-Sorolla 2001; Leary 2007; Ramanathan and Williams 2007), and that self-conscious emotions are often elicited by one’s thought about how oneself is evaluated by others (Leary 2007). Building on these past findings, we identify situational factors that systematically influence the intensities of these “complex” emotions and place restrictions on when these effects might occur. In particular, taking an actor’s perspective increases intensities of hedonic emotions whereas taking an observer’s perspective increases intensities of self-conscious emotions, providing that these emotions are typically involved in the experience.

Existing research on the cognition and emotion association has established that the type of emotions elicited might depend in part on the cognitive appraisals individuals use to interpret events (Arnold 1960; Frijda 1986; Han et al. 2007; Lazarus 1991; Ortony et al. 1988; Roseman 2001; Scherer 1988; Weiner 1980, 1986). Most of these findings focused on examining how individuals appraise events and the emotional consequences that result from the appraisals. Much less research has examined antecedents of these appraisals (Griner and Smith 2000; Ramanathan and Williams 2007). Thus, the present research is one of the few that attempts to examine situational antecedents that shape the use of cognitive appraisals for interpreting events. We show that visual perspectives might influence the appraisals individuals use to interpret both retrospective and anticipated events and thus systematically influence their emotional response to seemingly similar circumstances. The effects of visual perspectives on hedonic and self-conscious emotions we documented were restricted to emotions associated with retrospective and anticipated events. Future work could examine these effects in real-time situations. Parallel effects of visual perspectives in real-time situations might occur if people could shift their visual perspectives to experience the situation through focusing on the situational characteristics versus focusing on oneself in the same situation (e.g., in the presence of other people, or even simply a camera). Furthermore, future research could examine individual differences in visualization (vs. verbalization) disposition (Richardson 1977), which may have a moderating effect such that there may be larger effects for visualizers or those who are high in imagery, and lower or no effects for verbalizers or those who do not use imagery. All of these suggest the value

of future research in advancing the development of appraisal theory and the understanding of the role of “complex” emotions in consumer judgment and decision making.

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