THE VALUE OF PREDICTED ENJOYMENT: DECISION MAKING WITH INDIVIDUALS FROM EAST ASIAN AND NORTH AMERICAN CULTURAL BACKGROUND

by

CARL FRANCIS FALK

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ABSTRACT

In North American culture, research shows that individuals often make decisions based on affective forecasts. In contrast, East Asian cultures often warn against excessive hedonism - instead preferring harmony and balance. We predict that with these individuals, expectations about future positive affect may have less influence on decision making. In Study 1, North American and East Asian participants made a choice between two activities: One framed as enjoyable but not useful, and the other as useful but not enjoyable. In Studies 2 and 3, we measured the relationship between predicted enjoyment and predicted likelihood of taking hypothetical university courses. Our findings suggest that East Asians place less weight on affective forecasts in decision making and this may be due to differences in independent and interdependent self construals. However, our results also suggest that affective forecasts are still important for decision making among those from East Asian cultural backgrounds.
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PREFACE

A version of this thesis has been submitted for publication and is under review at the Personality and Social Psychology Bulletin. All three studies in this thesis were submitted in the same paper, authored by Carl F. Falk, Elizabeth W. Dunn, and Ara Norenzayan, under the title "On the importance of expected emotions for decision making: The moderating role of culture.” Study design for Study 2 was in collaboration with Dr. Dunn, and study design of Studies 1 and 3 was in collaboration with Dr. Dunn and Dr. Norenzayan. All writing and analyses for all studies in the current thesis were done solely by the author of this thesis.
The Value of Predicted Enjoyment: Decision Making with Individuals from East Asian and North American Cultural Backgrounds

In North America, great value is typically placed on positive emotional states. This fact is reflected in a number of domains - in ideas regarding the importance of pursuing happiness to the mere existence of an entire body of social psychological literature devoted to how individuals predict their own future affect, namely affective forecasting. From this literature, we know that predicted affect is often important in decision-making processes and that people are most likely concerned with making choices that will make them happy or lead to some positive emotion. However, an obsession with feeling good may be a uniquely North American or Western cultural phenomenon. To date, very few studies have explored affective forecasting outside a Western context. Thus, it is questionable as to whether this body of research is applicable or meaningful for those from a different cultural background. In this article, we investigate the applicability of affective forecasting in the domain of decision making for individuals from an East Asian cultural background. Are affective forecasts for these individuals as relevant to decisions as for individuals from a North American cultural background? We begin by reviewing literature on decision making and affective forecasting in North American culture, and then argue that positive affect is not valued to the same degree in an East Asian cultural context. In three experiments, we then test the relationship between decision making and affective forecasts across individuals from different cultural backgrounds.

Affective Forecasting and Decision Making

Affective forecasting research is concerned with the way individuals predict their own future affect, often in relation to the outcome of some expected future event. Often times this literature is concerned with the accuracy of predictions. For example, experiments in this domain may test how an individual’s affective expectations about a football game or future living arrangement match their actual experiences (Dunn, Wilson, & Gilbert, 2003; Wilson, Wheatley,
Meyers, Gilbert, & Axsom, 2000). There exist a number of biases and inaccuracies with prediction (for a review see Wilson & Gilbert, 2003), but some have argued that there is also a modest level of accuracy with such predictions (e.g., Schwartz, 2002).

Some of the most widely used economic and psychological theories of decision making under uncertainty, such as expected utility theory (Bernoulli, 1954) and subjective expected utility theory (Savage, 1972), did not discuss affective forecasts as factors that affect decisions. Decision making was initially assumed to follow a more or less rational process. Instead, relative utility and the probability of an outcome were the main factors for an actor to consider when making a choice between several options. Eventually, prediction curves from models such as those proposed by prospect theory (Kahneman & Tversky, 1979; Tversky & Kahneman, 1992) took into account biases and purported irrationality, accounting for the fact that expected utilities do not match up with the choices that individuals actually make (e.g., loss aversion, risk seeking). However, even prospect theory still did not specifically mention predicted affect as something important to consider (for a review of the above theories, see Lopes, 1994), although a form of hedonic experience is mentioned as a possible kind of utility in later writings by one of prospect theory’s co-authors (Kahneman, Wakker, & Sarin, 1997).

Recently, theories of decision making have seen an increase in the use and attention to affective components (Loewenstein & Lerner, 2003). From a theoretical perspective, Loewenstein and Lerner (2003) highlight expected emotions and immediate emotions as two essential components of decision making. In particular, these authors note that traditional theories of decision making can be construed to give great weight to expected emotions: “Dominant models of decision making, such as the expected utility model, assume people attempt to predict the emotional consequences associated with alternative courses of action and then select actions that maximize positive emotions and minimize negative emotions” (Loewenstein & Lerner, 2003, p.620). Thus, individuals can be seen as trying to be as happy or
content as possible or trying to avoid regret or unhappiness as much as possible. Other decision-making models have incorporated fear and hope or anticipated regret as affective components in order to aid in the prediction of risk-aversion and risk-seeking behaviors (Lopes, 1987; Lopes, 1990; Zeelenberg, 1999).

Most applicable to the current research, recent empirical work has shown evidence that a focus on predicted positive emotions is closely related to decision making. In general, more expected pleasure, sometimes weighted by the perceived likelihood that an outcome will occur, often means that an actor is more likely to make the choice expected to lead to that pleasure. In particular, decision affect theory as presented by Mellers and colleagues (Mellers, 2000; Mellers & McGraw, 2001; Mellers, Schwartz, Ho, & Ritov, 1997; Mellers, Schwartz, & Ritov, 1999) has shown how adding expected pleasure to a decision-making model can greatly enhance predictive utility across a variety of paradigms in both hypothetical and actual decision-making situations. Other research has shown that retrospective reports of an event often match affective forecasts – regardless of the individual’s actual experience of the event (Klaaren, Hodges, & Wilson, 1994; Wirtz, Kruger, Napa Scollon, & Diener, 2003). In addition to being dissociated from actual online experience, these retrospective reports may also be used in future decisions regarding similar choices or decisions to re-engage in an activity. For example, Klaaren et al. (1994) manipulated participants’ expectations about enjoyment of watching a movie and participants’ actual experiences of the movie. The expectations (either positive or negative) predicted willingness to participate in a similar study, regardless of the actual experiences of participants. Therefore, affective forecasts can have lasting influences on future choices, above and beyond the immediate choice the forecast was intended for. Clearly such forecasts can be powerful and important in predicting an individual’s decision.

We do note that sometimes affective forecasts are less predictive of choices. When making choices for immediate consumption, individuals will place more weight on affective
forecasts versus choices in which consumption will be at a later point in time (Dunn & Laham, 2006; Read, Loewenstein, & Kalyanaraman, 1999). If people must weigh multiple options at once and are given quantifiable values (scientific, economic, or even arbitrary and meaningless values; Hsee, 1999; Hsee, Zhang, Yu, & Xi, 2003), are in a state of mind of having calculated something rationally, their options are relatively void of affective qualities (Hsee & Rottenstreich, 2004), or must weigh multiple options at once (Hsee & Zhang, 2004), individuals sometimes think “rationally” about which is the better choice – discounting affective forecasts. However, even in these situations it has yet to be shown that decision-making processes are completely devoid of affective forecasts.

Culture and the Pursuit of Positive Affect

Collectivism and individualism form rather complex culture-level constructs that can be defined in a number of different ways, but basically describe two major different kinds of social patterns (Triandis, 1995). In general, people from collectivistic cultures, such as those in East Asia, tend to view being part of a tightly knit social groups (e.g., families) as very important, place the in-group’s goals ahead of their own, feel a strong sense of duty towards their in-group, and feel compelled to abide by their in-group’s norms (Triandis, 1989; Triandis, 1995). In contrast, in individualistic cultures, such as North American culture of the United States and Canada, individuals place more weight on their own goals and view themselves as more separable from their social groups. Thus, it is less expected those from an individualistic culture will obey group norms. Instead, it is one’s duty to be independent, unique, and free from others. At a psychological level, individuals from collectivistic cultures tend to have an interdependent definition of self – defining themselves in terms of their social relationships and incorporate other people in this definition (Kitayama & Markus, 1999; Markus & Kitayama, 1991). The distinction between oneself – in terms of preferences, goals, values, opinions, etc. – and other in-group members is sometimes blurred. Similarly, those from individualistic cultures tend to have
an independent conception of self—preferring to define themselves in terms of personal traits or attributes and as separate from other individuals. Boundaries between individuals are clearly defined and the motivation of each individual is often internally determined by personal desires rather than by group norms or obligations.

These major dimensions of cultural differences have consequences for the amount of value that ought to be placed on the pursuit of positive affect across cultures (Heine, Lehman, Markus, & Kitayama, 1999; Kitayama & Markus, 2000). In the broadest sense, those who habitually reference an interdependent view of self need to be concerned about meeting others' expectations and obligations to others as a primary goal is typically to be a good in-group member. To make their family and friends satisfied, they sometimes must forgo things that they might otherwise enjoy. Individuals from collectivistic cultures cannot constantly focus on maximizing their own positive affect because they need to consider social harmony (Uchida, Norasakkunkit, & Kitayama, 2004). Among such individuals, social harmony and perceptions of life satisfaction as a social norm are better predictors of actual life satisfaction than are self-esteem and emotional experience (Kwan, Bond, & Singelis, 1997; Suh, Diener, Oishi, & Triandis, 1998). On the other hand, those who tend to view themselves as independent of others are often more concerned about feeling good about themselves as their goal is typically to have high self-esteem (Heine et al., 1999). Supporting empirical research suggests that North Americans and those from individualistic nations do in fact report being happier, and focus on positive attributes, events, and emotions relative to East Asians (e.g., Diener, Diener, & Diener, 1995; Heine et al., 2001; Kitayama, Markus, & Kurokawa, 2000; Suh et al., 1998).

The valence of associations with positive affect also differs across cultures. In East Asian cultures, the world is often viewed as a homeostatic system that maintains balance between opposites such as positivity and negativity or sadness and happiness (Nisbett, Peng, Choi, & Norenzayan, 2001). Opposites may be seen as complementing parts of the same whole in such a
way that an excessive amount of happiness will inevitably be accompanied by sadness (Lebra,
1976, as cited in Heine et al., 1999). Thus, instead of pursuing positive affect, those from East
Asian cultures may strive to find balance between positive and negative affect (Heine et al.,
1999; Uchida et al., 2004). This makes sense in an interdependent context where one's own
emotions may be in conflict with in-group members. For example, basking in one's own success
may have deleterious consequences on the emotions of in-group members who are not as
successful or have suffered some kind of loss. As a consequence, positive affect in North
American culture may have purely good connotations, whereas in East Asian cultures negative
meaning is also associated with the experience of positive affect. It is no surprise then that self-
reports of positive and negative affect are positively correlated among participants in China,
Korea, and Japan whereas they are weakly negatively correlated among individuals in North
America (Bagozzi, Wong, & Yi, 1999; Kitayama et al., 2000).

In addition, definitions of so-called positive affect in East Asian cultures are not purely
positive in valence. For example, Heine (1996) found that European Canadians rated happiness
as 2nd most ideal to have among a list of 20 traits, whereas Japanese participants rated happiness
as 18th. More recently, Tsai, Knutson, and Fung (2006) found that Asian American and Hong
Kong Chinese participants, relative to European Americans, did not consider high arousal
positive emotions (i.e., excitement) to be ideal. In addition, Uchida and Kitayama (2007)
examined North American and Japanese conceptions of happiness. In their first study,
participants were simply asked to describe happiness. After coding open-ended responses for
content, they found that Japanese participants gave more undesirable descriptions of happiness
than North Americans. In their second study, participants sorted the descriptions from study one.
Japanese participants were particularly more likely to categorize descriptions of happiness as
negatively valenced in a way that suggested certain aspects of happiness made participants worry
about interdependent relationships.
Some descriptions of Japanese culture even make the explicit argument that the pursuit of happiness is outright immoral (Bennedict, 1946, as cited in Heine et al., 1999). As noted by the Japanese scholar Shozo Ogiya, enjoyment may also carry a similar connotation:

In our daily lives the word enjoy has a special position. With its meaning of "finding pleasure in" or perhaps of "being merry about" this word—at least to those of my generation—has nuances that smack of the immoral.... There are unemployed in America. In England and Italy there are crowds of the poor. What I mean to say is that in these countries the word enjoy has firmly put down roots into people's lives whether they have money or not. It is so to speak a basic principle of their attitude toward living—this is the point I'm trying to make, (as quoted in Plath, 1964, p. 68).

Thus, such descriptions suggest that individuals from Japanese culture may even sometimes try to avoid happiness and enjoyment. Although these examples are specific to Japanese culture, Heine et al. (1999) suggests that these attitudes towards the pursuit of happiness and its definition may not be limited to only Japan, but most likely generalize to other Asian cultures (e.g., Diener, Suh, Smith, & Shao, 1995).

**Culture and Affective Forecasting**

It is likely that most of affective forecasting theory, as with most of social psychological research, has been developed by researchers working in North American societies and with North American participants (Quiñones-Vidal, López-García, Peñaranda-Ortega, & Tortosa-Gil, 2004). Since affective forecasting is a relatively new field and cultural psychology is re-emerging, we know of only a single published paper identifying cultural differences in affective forecasting with participants from an East Asian cultural background (Lam, Buehler, McFarland, Ross, & Cheung, 2005). This paper found that East Asian participants, perhaps because they tend to think more holistically, were less likely than North Americans to exhibit focalism, or a focus on specific events and event features when predicting their own future happiness. North American participants tended to over-predict the impact of specific events on their happiness. Instead, East Asians tended to focus more on other contextual influences on their own happiness, and exhibited this affective forecasting bias to lesser degree. Although worth mentioning, Lam et
al.'s (2005) paper was not concerned with decision making or the value that participants placed on positive affect, and does not address the central question of this paper. Most relevant to the present research, Fong and Wyer (2003) included affective forecasts as a mediator in a larger model examining how risk perception and others' opinions predicted hypothetical choices. In one of two studies, the effect size for the link between expected positive affect and hypothetical choices appeared to be smaller for Chinese than for North American participants. However, this effect was not the main focus of their study, was not tested, and was not linked to any underlying cultural dimension.

The Present Studies

Although we recognize that decision-making theories are much more complex than we have presented, to narrow our focus, we are simply interested in the predicted affect component of these models. Previous research in North America has shown that predictions about positive emotions are important in predicting the choice than an individual will make. However, we argue that different cultures may place considerably less weight on expected positive emotions. Specifically, those from East Asian cultures should not pursue positive affect to the same degree as those from North American cultures. Previous studies have yet to explicitly examine such cultural differences.

As an initial step to testing the applicability of affective forecasts in decision making to participants from other cultural backgrounds, we decided to test three broad questions: 1) Do North Americans, relative to those from an East Asian cultural background, prefer more enjoyable activities? 2) Is predicted positive affect a factor in the decision-making processes of those from an East Asian cultural background relative to those from North America? 3) Might such a difference in the weight placed on affective forecasts in decision making be in part due to the accessibility of independent and interdependent self-concepts? The following three studies test all three of these questions. In Study 1, we gave East Asian and North American participants
a forced choice between an enjoyable or useful activity. In Study 2, we tested whether predicted enjoyment was more strongly related to hypothetical choices among East Asians or North American participants. And in Study 3, we primed participants with either independence or interdependence to see if these constructs could push participants towards placing more or less weight on predicted enjoyment, respectively, when making decisions.
STUDY 1

In Study 1 we tested East Asian and North American\(^1\) participants' preferences for one of two activities: One framed as fun but not very useful for any particular purpose, and another framed as useful for participants' studies, but not particularly fun or enjoyable. We expected that giving a forced choice between these activities would give the strongest test of whether differences may exist in the amount of weight placed on expected emotions. In particular, if it is the case that an individual places a lot of weight on the pursuit of positive affect, we would predict that they would pick the enjoyable activity over the useful activity. Therefore, we expected that North American participants would tend to choose the enjoyable activity whereas East Asian participants would choose the enjoyable activity less often.

**Method**

**Participants**

Participants were recruited from public areas on a large North American university. At this early stage of research, we were most concerned with identifying cultural differences and expected that later studies would be able to shed light on the underlying dimensions responsible for any difference between cultural groups (Heine & Norenzayan, 2006). Therefore, since the most culturally distinct groups tend to yield the largest cultural differences (e.g., Van de Vijver & Leung, 2000), we selected individuals from a larger sample of participants that met strict criteria for categorization as being from one of two cultural backgrounds: Twenty-one North American (10 female) and nineteen East Asian (14 female) participants. North American participants were born in a Western country, lived ninety-five percent or more of their lives in the United States or Canada, were ethnically Caucasian, and had parents who were born in a Western country. East Asian participants were born in an East Asian country, were ethnically

\(^{1}\)We use the terms “East Asian” and “North American” as shorthand for referring to participants with a strong East Asian cultural background and participants with a strong North American (United States and Canada) cultural background, respectively.
East Asian, had parents born in a non-Western country, and had lived in the United States or Canada for ten years or less.

**Design, Procedure, and Materials**

Our intention was to create a situation in which participants were to make a real choice between engaging in one of two activities. Thus, the critical dependent variable was a choice between an activity framed as fun and enjoyable but not useful for any particular reason, and another activity that was useful for one’s study skills but not particularly enjoyable. Research assistants, blind to our hypothesis, approached each potential participant and asked if they would like to participate in a short study in exchange for a candy bar. Participants were asked to complete a consent form and a background questionnaire. The consent form indicated that participants would be making a choice between two activities and that they might be asked to engage in their chosen activity for a short period of time, which emphasized that they were making a real choice. The background questionnaire assessed demographic information (e.g., age, gender, etc.) as well information used in the creation of the East Asian and North American cultural categories (e.g., years lived in Canada/USA, parents’ birthplace, etc.).

Upon completion of these forms, the experimenter showed participants two activities. As depicted in Figure 1, two screen shots of puzzle-like computer games were used as stimuli: Klotski and Atomix. These particular games were chosen because they appeared to be equally as interesting (or boring), and of a similar genre. In fact, participants did not show a preference for either Klotski or Atomix, $\chi^2(1) = .90, p = .34$. Each activity was sequentially shown to the participant along with a brief description. The experimenter described the “fun” activity as follows: “A lot of people find this one to be really fun and lively, but not helpful for their mind or improving their studying ability.” In contrast, the “useful” activity was described as follows:

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2 At the time the study was conducted, both games were available as packages for the GNOME desktop platform for Linux, freely available from the GNOME foundation at http://www.gnome.org.
“This kind of activity can improve your thinking skills and boost your grades, but in our previous studies not many participants enjoyed it.” The order of presentation of the stimuli was randomly varied as well as the pairings of each frame with each activity.

Figure 1: Atomix and Klotski – Stimuli Used for Study 1
Experimenters then asked participants to choose one of the activities. On a second questionnaire, participants recorded their choice of activity as well four questions assessing perception of the activities along dimensions of enjoyability and usefulness: “For the activity that you chose/did not choose, how enjoyable/useful did you think the activity would have been?” Questions were rated on a 7-point Likert scale from 1 (Not Fun/Useful At All) to 7 (Very Fun/Useful). The questions regarding the chosen activity appeared first, with the questions about enjoyability appearing first in each activity's pair of questions. These retrospective assessments were meant to serve as a manipulation check for the framing of each activity. After completion of these questions, participants were not asked to engage in either activity as they were initially led to believe. Finally, participants were thanked for their participation and debriefed.

Results

Main Hypothesis: Activity Choice

To see if North American participants preferred the enjoyable activity and East Asian participants the useful activity, we performed a Pearson chi-square analysis with culture and frame of chosen activity as the two categorical variables. The result of this analysis was statistically significant, $\chi^2(1) = 3.87, p < .05$. Upon inspection of the proportion of results, it appeared that the North American participants clearly preferred the fun activity (85.7%) as opposed to the useful activity (14.3%), whereas the East Asian participants appeared to only slightly favor the fun activity (57.9%) versus the useful activity (42.1%). These results appear graphically in Figure 2.

In a logistic regression predicting activity choice (useful = 0, fun = 1), culture (East Asian = 0, North American = 1) was a significant predictor, $b = 2.18$, Wald’s $\chi^2(1) = 4.47, p = .037$, in the same pattern as the Pearson chi-square reported above after controlling for gender, order of
activity presented (e.g., Klotski presented first versus Atomix presented first), and pairings of activities with frames (e.g., Klotski = useful versus Klotski = fun). This analysis ruled out these other factors as possible explanations for the chi-square results.

Figure 2: Proportion of Each Activity Chosen within Each Cultural Group

Manipulation Check

Two separate 2 (Culture: North American versus East Asian) X 2 (Frame: Fun versus Useful) mixed-model ANOVAs were performed with retrospective activity ratings of perceived enjoyability and usefulness as outcomes to ensure the frames were having the intended effect and were equally effective for each cultural group.

For perceived enjoyability as an outcome, as expected, a main effect of frame emerged, \( F(1,36) = 25.25, p < .001 \), such that the activity framed as enjoyable was perceived as more enjoyable (\( M = 4.63, SD = 1.30 \)) than the activity framed as useful (\( M = 3.13, SD = 1.49 \)). Neither the main effect of culture, \( F(1,36) = .37, p = .55 \), or the interaction, \( F(1,36) = .19, p = .66 \), reached significance.
For perceived usefulness as an outcome, the main effect of frame was significant, $F(1,36)=8.57, p=.006$, such that the activity framed as useful was perceived as more useful ($M=3.95, SD=1.18$) than the activity framed as enjoyable ($M=3.18, SD=1.29$). Once again, the main effect of culture, $F(1,36)=.24, p=.62$, and the interaction, $F(1,36)=1.86, p=.18$, were both not significant.

**Discussion**

Consistent with our predictions, we found that North American participants were more likely than East Asian participants to choose an enjoyable activity versus a useful activity. Thus, when faced with an actual choice, it appears that North American individuals prefer the activity purported to deliver positive affect. East Asians, on the other hand, did not appear to show a clear preference. While the design of Study 1 was ideal for establishing an actual behavioral difference across cultures when a real decision had to be made, it did not provide a direct test for the amount of weight placed on expected positive emotions when making a decision. We have yet to discover what underlying factors affected the decisions of individuals from both cultural groups and whether affective forecasts were relevant at all to the decisions that the East Asian participants made.
STUDY 2

In Study 2, we were primarily interested in determining whether those from East Asian cultural backgrounds place less weight on predicted enjoyment than those from North American culture when making decisions. This study employed a repeated measures design that examined the relationship between multiple possible choices and multiple predictions of enjoyability and usefulness. In using such a design, we were able to relate each individual’s subjective perception of enjoyability and usefulness to their subjective likelihood of making a choice. Thus, this study design was much more powerful than Study 1 for allowing us to examine the amount of weight placed on affective forecasts. In addition, because the analyses predicted choices from affective forecasts and usefulness within each individual, the design was relatively immune to idiosyncratic perceptions of our stimulus materials. In line with our previous discussions, we predicted that East Asian participants would place less weight on predicted enjoyment than North Americans.

Method

Participants

Participants were recruited from public areas on a large North American university and were awarded a candy bar as compensation. We analyzed data from twenty-four North American (11 female) and fourteen East Asian (11 female) participants. The exact same criteria for categorization of participants as Study 1 were used.

Design, Procedure, and Materials

Participants were recruited in the same fashion as Study 1. Participants completed a background questionnaire identical to that of Study 1. Next, participants read a brief introduction to eight course descriptions. The introduction emphasized that the following courses could

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3These numbers reflect participants available after two East Asian participants were excluded for not completing enough questions required for inclusion in our analysis.
constitute a set of core required courses that students needed to choose from, and that the
descriptions were based on student evaluations. This introduction was intended to increase the
psychological realism that participants experienced while reading the course descriptions and
completing the subsequent questionnaire. Participants were asked to read all course descriptions
before answering any questions about the courses.

The eight course descriptions were fictitious and served as the main stimuli for the
repeated measures design. To ensure variability in participants’ responses, we systematically
constructed the course descriptions to vary along three dimensions: Enjoyability, usefulness, and
subject domain. Thus, the stimuli themselves essentially consisted of a 2 (low versus high
enjoyability) X 2 (low versus high usefulness) X 2 (humanities course versus science and math
course) design, with one course description fitting into each cell. For example, a high-
enjoyability, high-usefulness humanities course description was:

Literature 966 (Famous Persuasive Essays). The professor gives some of the most
entertaining lectures you will ever have at UBC. Students have found the content to be
engaging and useful in their everyday lives. In addition, due to a small class size, the
professor often offers to write letters of recommendations for all students in the class – for
the purposes of graduate school applications, job applications, or scholarship applications.

And an example of a low-enjoyability, low-usefulness math/science course was as follows:

Science 974 (Theories of Scientific Knowledge). The professor for this course has been
described as “dictator-like.” Everything is taken so seriously that students have reported
lectures to be somewhat depressing. The content is also something you will probably not find
to be helpful in your everyday life or in your future career – no matter what field you decide
to enter.

As evident above, other than the title, each course description was deliberately devoid of
any specific description of actual course content. This was an attempt to push participants
towards focusing on perceived enjoyability and usefulness, rather than any idiosyncratic factors.
However, as noted in our results section, we were more interested in participants’ subjective
ratings of enjoyability and usefulness than investigation of these particular cells. Therefore, some
idiosyncrasy and even disagreement across cultures as to the most enjoyable and useful courses
do not pose a problem for our analyses and conclusions. The full list of course descriptions appears in Appendix I.

Following the course descriptions, participants completed a course-rating questionnaire that asked three questions about each course. This provided us with measures for each course on predictions of likelihood of taking the course next term (“Assuming you had room in your schedule and were required to take at least some courses from within this set, how likely is it that you would take each course listed below?”), predicted enjoyment of the course (“How enjoyable do you think each course would be overall?”), and predicted usefulness of the course (“How useful do you think each course would be overall?”). All of these questions were answered on a 7-point Likert scale (Extremely Unlikely to Extremely Likely; and Not [Enjoyable/Useful] At All to Extremely [Enjoyable/Useful]). Questions were grouped according to type (i.e., likelihood, enjoyment, usefulness). For example, participants rated the predicted enjoyment of all courses in a separate section of the questionnaire from the predicted usefulness of each course. The order of courses within each section of questions was the same as the order of presentation of the course descriptions themselves. Participants were allowed to refer to the course descriptions when answering these questions. We used two versions of this questionnaire, varying the order of questions. Likelihood of taking the course was fixed and always appeared first, whereas participants were randomly assigned to answer either enjoyment predictions before usefulness predictions or vice versa. Upon completion of the questionnaire packet, participants were thanked for their participation and awarded compensation.

Results

Overview of Analyses

This particular study design was specifically chosen to employ the use of Hierarchical Linear Modeling (HLM; Raudenbush & Bryk, 2002) as a data analytic tool. In this study design, individuals served as level 2 clusters with the eight ratings of each measure of likelihood of
taking the course, predicted enjoyment, and predicted usefulness nested inside each individual as level 1 measures. For the regression equation at level 1, we predicted likelihood of taking each course from ratings of enjoyment and usefulness simultaneously. All level 1 predictors were grand mean centered. At level 2, the intercept and slope of all level 1 coefficients were predicted by a culture contrast code (1/2 = East Asian, -1/2 = North American). This meant that the intercepts of the level 1 coefficients were interpretable as being at the unweighted mean of the two culture conditions and the coefficients for this contrast would be interpreted as the difference between the two conditions. Level 2 equations also included random error terms (r), assuming unique individual effects on the slope and intercepts of the level 1 equation. Questionnaire version and gender were not significant predictors and were dropped from the analyses. The full mixed-model equation used appears below and the results from this equation appear in Table 1:

\[
\text{Likelihood} = (\beta_{00} + \beta_{01} \text{(Culture)} + r_0) + (\beta_{10} + \beta_{11} \text{(Culture)} + r_1)(\text{Enjoyment}) + (\beta_{20} + \beta_{21} \text{(Culture)} + r_2)(\text{Usefulness}) + e
\]

Conceptually, HLM allowed us to compute a regression equation predicting likelihood of taking a course from ratings of enjoyment and usefulness for each individual across ratings for all eight courses. The level 2 equations then allowed us to test whether the slope and intercepts of these regression equations were different, on average, for those of East Asian versus North American culture. This is conceptually the same as computing interaction terms under traditional multiple regression analysis. The slope of the enjoyment line represented the strength of the relationship between affective forecasts and likelihood of taking courses. Therefore, whether this line differed as a function of culture (a cross-level interaction between culture and enjoyment)

---

4 Preliminary analyses also did not reveal any systematic differences related to participants' self-reported academic major or field of study. Therefore, this variable was not explored further and was not included in the analyses.
was of primary interest. Differences in means across groups were not of theoretical significance, were not statistically significant, and were not interpreted.

<table>
<thead>
<tr>
<th>Fixed Effect</th>
<th>Coefficient</th>
<th>se</th>
<th>df</th>
<th>t Ratio</th>
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<td>Level-1 Effect, $e$</td>
<td>1.24</td>
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</tr>
</tbody>
</table>

$\dagger p < .10$, $* p < .05$, $** p < .01$, $*** p < .001$
Enjoyment-Likelihood Relationship

Overall, predicted enjoyment emerged as a significant predictor of likelihood of taking a course, $\beta_{10} = .55$, $t(36) = 12.47$, $p < .001$. Central to our hypothesis, we also found a cross-level interaction between the strength of this slope and culture, $\beta_{11} = -.18$, $t(36) = -2.06$, $p = .046$. To understand the nature of this interaction, we computed the slopes of the enjoyment-likelihood relationship for each level of culture by sequentially centering the culture contrast at each level of culture and extracting the value of the intercepts. As depicted in Figure 3, the relationship between predicted enjoyment and likelihood of taking a course was stronger for the North American participants, $\beta_{10} = .64$, $t(36) = 12.35$, $p < .001$, than for the East Asian participants, $\beta_{10} = .46$, $t(36) = 6.44$, $p < .001$. However, it is important to note that both of these coefficients were non-trivial and significantly different than zero. In both cultures, the more enjoyable participants perceived a course, the more they said they were likely to take the course. This relationship was only stronger for the North American participants.

Usefulness-Likelihood Relationship

Predicted usefulness also emerged as a significant predictor of likelihood of taking a course, $\beta_{20} = .36$, $t(36) = 4.48$, $p < .001$, although this coefficient was smaller than the corresponding coefficients for the enjoyment-likelihood relationship for both cultural groups. The positive sign of this coefficient indicated that the more useful participants thought a course would be, the more they said they were likely to take the course. Interestingly, we found no cultural differences in the slope of this regression line as the interaction term was not significant, $\beta_{21} = -.06$, $t(36) = -.39$, $p = .70$. 
Discussion

The results of Study 2 indicate that the relationship between predicted enjoyment and likelihood of taking a hypothetical course was weaker for East Asian participants than for North American participants. It seems that East Asian participants placed less weight on predicted enjoyment when making decisions about which courses they were most likely to take. This complements Study 1 by showing more directly that affective forecasts may be less related to choices for those from East Asian cultural backgrounds. However, it is important to note that participants from both cultures appeared to place a considerable amount of weight on affective forecasts when making decisions.

Study 1 and Study 2 thus far have found predicted cultural differences in decisions and the amount of weight placed on affective forecasts. However, cultures may differ from one another on a wide array of dimensions (Heine & Norenzayan, 2006; Van de Vijver & Leung,
1997). We have yet to identify what underlying cultural dimension may be responsible for the cultural differences we have discovered. To ease the logistics of data collection thus far, we have only collected minimal background information about participants. This raises the possibility that some unmeasured, culture-unrelated demographic difference could have been indirectly responsible for the differences discovered in our first two studies. Study 3 addressed these issues by employing an experimental design that manipulated what aspects of culture were relevant to each individual.
STUDY 3

Echoing our introduction, we believe that the relative accessibility of interdependent and independent conceptions of the self are directly related to the amount of weight individuals place on affective forecasts when making decisions. Given both in-group concerns and the association of negative emotions with positive emotions, it seems likely that individuals with an interdependent view of self are not as concerned with their positive emotions as those with an independent view of self. That is, when one is thinking about their relationships and interpersonal responsibilities, they place less weight on their own predicted personal enjoyment when making decisions. In contrast, when individuals are considering their own personal desires, they feel freer to pursue hedonic endeavors.

Theoretically, individuals differ in the accessibility of cultural knowledge structures (Hong, Morris, Chiu, & Benet-Martinez, 2000), including both independence and interdependence (Gardner, Gabriel, & Lee, 1999). Individuals exposed more to North American culture habitually reference an independent self whereas those exposed more to an East Asian culture habitually reference an interdependent self. Biculturals, or individuals who have been exposed to both cultures, may have developed conceptions of both selves and retain the most flexibility in being able to reference an interdependent or independent self (Hong et al., 2000). For example, East Asians living in the United States or Canada probably have a conception of what it is like to be interdependent, perhaps based on their experiences with their family or earlier experiences in their native culture. In addition, they may have absorbed some cultural ideals about independence from living in North American culture and experiencing other kinds of social relationships. Asian-Canadians or Asian-Americans may have had similar experiences – being exposed to one culture at home and another when at school or work. However, other than contrasting North American and East Asian participants very broadly, we have yet to examine
whether differences in the amount of acculturation to North American versus East Asian culture has any effect on the amount of weight placed on an affective forecasts when making decisions.

In addition, previous studies have shown that the relative accessibility of an independent or interdependent self can be manipulated (Gardner et al., 1999) and that priming such cultural constructs is an acceptable and frequently used technique for understanding cultural differences (Heine & Norenzayan, 2006). Therefore, if differences in this underlying cultural dimension are responsible for the cultural differences we have found, manipulating it ought to elicit the same corresponding cultural differences. That is, when primed with interdependence, individuals ought to place less weight on affective forecasts when making decisions, whereas when primed with independence, individuals should place more weight on affective forecasts. Study 3’s primary purpose was to test whether independent and interdependent primes could elicit these outcomes. We chose to use East Asians and Asian-Canadians, both living in Canada, as our test participants. Since these individuals are the most likely to have experience in both independent and interdependent contexts, we theorized they would be the most receptive to primes and would provide us with the most powerful test (Hong et al., 2000; Hong, Ip, Chiu, Morris, & Menon, 2001). As a result of using this category of individuals, we were also in a position to test a secondary hypothesis: Increased exposure to North American culture is associated with more weight placed on affective forecasts when making decisions. If support for this second hypothesis were found, it would serve as a conceptual replication of Study 2’s results.

Method

Participants

A total of one-hundred thirty-six participants (102 female) from an East Asian cultural background participated in this study.5 All participants were recruited in the same manner as

5Two participants were excluded: One for not answering enough questions necessary for analyses, and another for having collinear responses on all three measures of likelihood, usefulness, and enjoyment (same outcomes as Study 2), which led this person to be an extreme outlier in the analyses.
Studies 1 and 2 from a large North American university. These participants varied tremendously in the degree of how long they had lived in Canada or the United States (range: <1% to 100%, $M=66.99\%$, $SD=34.18\%$).

**Design, Procedure, and Materials**

This study used the same procedure, stimuli, and main dependent measures as Study 2, but included the addition of three experimental conditions: Interdependence prime, independence prime, and a no prime control condition. The primes utilized were taken directly from Trafimow, Triandis, and Goto (1991; Study 2) and were read by participants after completing the background questionnaire and before reading the course descriptions. These primes consisted of a short two-paragraph story about an ancient Sumerian warrior who must pick a military commander for a new campaign. In the interdependence prime, which these authors refer to as the “collective self-prime,” the protagonist picks a family member in order to benefit his family. In the independence prime, or “private self-prime,” the protagonist picks a “talented general,” because the protagonist will personally benefit from this choice. Participants in the no prime condition did not read any story. These primes have been used successfully, in the original study, and in other studies to prime interdependent and independent selves (e.g., Gardner et al., 1999). All experimenters were blind to condition and all participants were randomly assigned to condition.

All other materials and stimuli were identical to Study 2, with exception of the order of questions on the course-rating questionnaire. Predicted usefulness ratings always appeared after predicted enjoyment ratings, and likelihood of taking each course was randomly assigned to appear either as the first set of questions or the last set of questions on the questionnaire.
Results

Overview of Analyses

The same data-analytic technique as Study 2 was employed. The level 1 equation remained the same: Within each person, we predicted likelihood of taking each course from ratings of enjoyment and usefulness simultaneously, and the level 1 predictors were grand mean centered. The level 2 predictors were changed to include four predictors, two of which were of theoretical significance. Percentage of life lived in Canada/USA (PL, grand mean centered) served as a continuous measure of exposure to North American culture. Albeit a crude measure, similar variables have been used successfully in previous research to study acculturation of East Asian individuals to North America (e.g., Heine & Lehman, 2004). Including this variable allowed us to test if the amount of exposure to North American culture had any effect on the slope of the enjoyment-likelihood regression line. For the experimental conditions, since we predicted a linear progression in the strength of the enjoyment-likelihood relationship from the interdependent prime as the lowest strength, to no prime, to the independence prime as the strongest, the level 2 equation included a contrast code to test for this prediction (CI; interdependent prime = -1/2, no prime = 0, independence prime = 1/2). Since we had three experimental groups, as with traditional multiple regression (e.g., Cohen, Cohen, West, & Aiken, 2003) a second contrast code was required to complete the representation of experimental prime conditions in the level 2 equation. Since no other contrasts of prime conditions were of theoretical significance, we chose an orthogonal contrast code (C2; interdependent prime = -1/3, no prime = 2/3, independence prime = -1/3). We computed interactions between percentage of life lived in Canada/USA and each of the experimental condition contrast codes. However, these interactions were not significant predictors of the level 1 slope coefficients (all p > .2), did not significantly increase the fit of the model as indicated by a likelihood-ratio test, \( \chi^2(6) = 5.09, p > .5 \), and were trimmed from the overall model. Questionnaire version was a significant predictor
of some level 1 coefficients and had to be included as a level 2 predictor \((Q; \text{likelihood-enjoyment-usefulness} = 1/2, \text{enjoyment-usefulness-likelihood} = -1/2)\). As in Study 2, level 2 equations also included random error terms, assuming unique individual effects on the slope and intercepts of the level 1 equation. Gender was not a reliable predictor and was not included in the analyses. Once again, differences across conditions in the mean likelihood of taking a course were not expected, were not significant at the .05 level, and were not interpreted. The full mixed-model equation appears below and the results for this equation appear in Tables 2 and 3:

\[
\begin{align*}
\text{Likelihood} &= (\beta_{00} + \beta_{01} (C1) + \beta_{02} (C2) + \beta_{03} (PL) + \beta_{04} (Q) + r_0) + \\
& (\beta_{10} + \beta_{11} (C1) + \beta_{12} (C2) + \beta_{13} (PL) + \beta_{14} (Q) + r_1) (\text{Enjoyment}) + \\
& (\beta_{20} + \beta_{21} (C1) + \beta_{22} (C2) + \beta_{23} (PL) + \beta_{24} (Q) + r_2) (\text{Usefulness}) + e
\end{align*}
\]
Table 2: HLM Fixed Effects for Study 3

<table>
<thead>
<tr>
<th>Fixed Effect</th>
<th>Coefficient</th>
<th>se</th>
<th>df</th>
<th>t Ratio</th>
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<tbody>
<tr>
<td>Individual Mean</td>
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<td></td>
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<tr>
<td>Intercept, $\beta_{00}$</td>
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<td>131</td>
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<td>Question Order, $\beta_{04}$</td>
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<td>Percent Life in CA/USA, $\beta_{13}$</td>
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<td>0.10</td>
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†$p < .10$, *$p < .05$, **$p < .01$, ***$p < .001$
Table 3: HLM Random Effects for Study 3

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†$p < .10$, *$p < .05$, **$p < .01$, ***$p < .001$

Enjoyment-Likelihood Relationship

Once again, expected enjoyment was a significant predictor of likelihood of taking a course, $\beta_{10} = .49, t(131) = 16.34, p < .001$. However, this relationship was moderated by the predicted experimental condition contrast, $\beta_{11} = .16, t(131) = 2.14, p = .034$, and was not moderated by the orthogonal contrast, $\beta_{12} = -.03, t(131) = -.54, p = .588$. To understand how the enjoyment-likelihood relationship varied as a function of experimental condition as with the first contrast, we computed the simple slopes of enjoyment-likelihood at each experimental condition. As expected and as shown in Figure 4, the strength of enjoyment-likelihood relationship was statistically significant in all conditions, but lowest in the interdependent prime condition, $\beta_{10} = .43, t(131) = 8.35, p < .001$, highest in the independence prime condition, $\beta_{10} = .58, t(131) = 10.71, p < .001$, and at an intermediate level in the no prime condition, $\beta_{10} = .47, t(131) = 10.04, p < .001$.

Percentage of life lived in Canada/USA, $\beta_{13} = .19, t(131) = 2.03, p = .044$, also moderated the enjoyment-likelihood relationship. We next computed the simple slopes of enjoyment-likelihood at 0%, 50%, and 100% of life lived in Canada/USA. As depicted in Figure
5, this relationship was non-zero and positive for the entire range of percentage of life lived in Canada/USA. The strength of the relationship increased as percentage of life lived in Canada/USA increased from 0%, $\beta_{10} = .36, t(131) = 4.78, p < .001$, to 50%, $\beta_{10} = .46, t(131) = 12.50, p < .001$, to 100%, $\beta_{10} = .56, t(131) = 14.21, p < .001$.

Although theoretically uninteresting, but intuitive, a questionnaire version effect was found, $\beta_{14} = .19, t(131) = 3.24, p = .002$., which indicated that the relationship between enjoyment and likelihood of taking a course was stronger when these two sets of questions were adjacent to each other on the questionnaire.

Figure 4: Enjoyment-Likelihood Slopes for Each Experimental Prime Condition
Usefulness-Likelihood Relationship

The relationship between perceived usefulness and perceived likelihood of taking a course was significant, $\beta_{20} = .31$, $t(131) = 9.28$, $p < .001$. However, this relationship did not appear to vary as a function of percentage of life lived in Canada/USA, $\beta_{23} = .09$, $t(131) = .93$, $p = .35$, or experimental condition, $\beta_{21} = -.07$, $t(131) = -.85$, $p = .40$, and $\beta_{22} = .08$, $t(131) = 1.20$, $p = .23$, for the predicted and orthogonal contrasts, respectively. A marginal effect of questionnaire version was found, $\beta_{24} = -.12$, $t(131) = -1.79$, $p = .075$. Again, this basically indicated that the relationship between usefulness and likelihood of taking a course was stronger when these questions appeared one after the other on the questionnaire.

Discussion

Study 3 conceptually replicated Study 2 in the sense that percentage of life lived in Canada/USA was related to the relationship between predicted enjoyment and hypothetical
decisions. Those who had spent less time in Canada/USA were presumably less acculturated to North American culture and had a weaker enjoyment-likelihood relationship than those who had lived in Canada their entire lives. Therefore, it appears that there is something about North American culture versus East Asian culture that leads one to place more weight on affective forecasts.

Most importantly, the results of Study 3 demonstrated that the relationship between predicted enjoyment and decision making can be manipulated by means of independence and interdependence primes. Having a more accessible independent self means that such an individual places more weight on predicted enjoyment when making decisions. In contrast, when one is primed with an interdependent self, less weight is placed on predicted enjoyment. These dimensions, which also tend to vary across cultures (e.g., Triandis, McCusker, & Hui, 1990), may be responsible for the observed cultural differences in Studies 1 and 2.

In addition, the enjoyment-likelihood relationship was always a positive and statistically significant relationship. Thus, regardless of experimental condition or acculturation to North American culture, it appears that all participants did in fact place weight on affective forecasts when making their decisions.
GENERAL DISCUSSION

We have shown that a cultural difference exists: Those from East Asian cultural backgrounds place less weight on affective forecasts in their decisions than North American participants – both in actual and hypothetical decision-making situations. We have also established that the accessibility of independent and interdependent selves may be an underlying cultural dimension responsible for this cultural difference. Despite these assertions, it is inappropriate to conclude that East Asian individuals, and those who habitually think of themselves as interdependent, do not value affective forecasts or are completely unconcerned with their own happiness. Specifically, in Studies 2 and 3, we found that East Asian new to North America and those primed with interdependence still used affective forecasts when making decisions.

Implications for Affective Forecasting and Decision Making

Our studies test cultural differences in affective forecasting and decision making under a variety of circumstances and can be linked to much research, but not yet all decision making situations. Arguably, we have covered situations in which participants ought to focus more on affective forecasts (Study 1) as well as situations in which individuals ought to make more rational calculations (Studies 2 and 3). In Study 1, participants made a choice for an immediate experience in which there was no quantifiable difference between two puzzle games (Hsee, 1999; Read et al., 1999). In Studies 2 and 3, we gave participants multiple choices between academic courses ostensibly for an experience that would occur at a much later point in time (Hsee & Rottenstreich, 2004; Hsee & Zhang, 2004). In all studies we found cultural differences, but also argue that a significant amount of weight was placed on affective forecasts in all situations and for both cultural groups (affective forecasts were not measured directly in Study 1, but the majority of participants from both cultural groups chose the enjoyable activity). Although other studies have tested for cultural differences in decision making under uncertainty or risk
(Hsee & Weber, 1999; Mandel, 2003; Weber & Hsee, 1998), cultural differences in affective forecasts and decision making remain to be tested under these circumstances. For example, our experiments did not use a paradigm able to directly test prospect theory or decision affect theory. However, there is no reason to believe that our results would not generalize to these other theories.

Overall, our evidence indicates that affective forecasts are relevant for decisions made by those from both East Asian and North American cultures. It appears that decision-making models that incorporate expected affect as predictive components may still be useful with individuals from East Asian cultural backgrounds. At the same time, since cultural differences do exist, it may be hasty to rely solely on affective forecasts when explaining decisions made by those from East Asian cultural backgrounds. We have yet to illuminate what other components East Asians may place more weight on when making decisions. It would be premature to discount affective forecasting literature as something only relevant to those from North America. However, our research remains to be tested with additional cultures, such as those within non-industrialized nations.

**Implications for Culture and Affective Forecasting**

We hypothesize that differences in independent and interdependent selves may be responsible for the cultural differences we observed, and our evidence thus far supports this conclusion. We manipulated these dimensions and found that they were able to alter the importance of affective forecasts on decision making. Thus, when thinking about social roles and relationships, people tend not to be concerned so much with their own positive affect, perhaps because making decisions based purely on hedonic reasons is not conducive to maintaining such relationships. When thinking of oneself as independent from others, such obligations are absent and positive affect is there for the taking. At the very least, such experimental manipulations
should have ruled out artifactual explanations for the differences we found across cultural groups and suggest that we have identified a true cultural difference.

Our studies should not preclude the possibility that other pathways and dimensions may exist and can lead to the same results, perhaps operating simultaneously. It is our view that the current research primarily constitutes the first stage in identifying a cultural difference and much work still remains to further explain the cultural difference (Heine & Norenzayan, 2006). We know that many other differences across cultures also tend to cluster with differences in collectivism and individualism or interdependence and interdependence.

Although we hypothesized that it was possible for East Asian participants, relative to North American participants, to place more weight on perceived usefulness when making decisions, we did not find supporting evidence. This dimension, however, was not the main concern of our studies and was merely meant to serve as a control or another option for participants to place weight on. As is typical and acceptable in much affective forecasting research, we used single item self-reports to measure enjoyment and usefulness (Wilson & Gilbert, 2003). But in hindsight, we do admit that the usefulness dimension could have operationlized in a better way. Different activities may be viewed as useful or having utility for a wide range of different reasons (e.g., long-term versus short-term goals, personal versus relationship utility, career versus personal life, etc.). Although we did not find evidence in this study, it is possible East Asian participants are placing value on a particular kind of utility – one that may be conducive to fulfilling the expectations of in-group members. Some studies examining career paths have found that those from collectivistic cultures sometimes choose careers that appear to be more in line with their parents’ desires than out of personal interest (e.g., Gupta & Tracey, 2005).

It is also possible that East Asian participants place more weight on different kinds of affective forecasts for different kinds of emotions. For example, cultural differences also exist in
the tendency to approach positive outcomes versus avoiding negative outcomes (e.g., Lee, Aaker, & Gardner, 2000). Presumably due to in-group concerns and the need to avoid face-loss, those from East Asian cultures tend to adopt an avoidance orientation whereas those from North American culture tend to be more approach oriented. This means that those from East Asian cultures may pay more attention to negative information or negative outcomes (Lee et al., 2000), placing more weight on avoiding negative emotions than those from a North American cultural background. In terms of decision making, East Asians attempt to minimize negative affect instead of maximizing positive affect. There is also the possibility that East Asians are striving for a balance between positive and negative affect instead of trying to maximize or minimize either (Heine et al., 1999; Uchida et al., 2004).

Furthermore, other researchers have identified cultural differences in what is valued for different kinds of positive affect. For example, Kitayama, Mesquita, and Karasawa (2006) have shown that socially engaging positive emotions may be more important for Japanese than North Americans. Specifically, Japanese participants tended to report such emotions as more intense than Americans, and the link between such emotions and well-being was stronger among Japanese participants. Similarly, Chentsova-Dutton (2005) found that Asian-Americans, previously thought to experience less intense positive emotions compared with North American participants, experienced more intense positive emotions when thinking about themselves with a family member as opposed to thinking about themselves. This does raise the possibility that, when the experience of emotions is directly related to interactions with in-group members, predictions of such emotions may be more relevant to those from East Asian cultures.

Tsai and her colleagues (Tsai, Knutson, & Fung, 2006; Tsai, Louie, Chen, & Uchida, 2007; Tsai, Miao, & Seppala, 2007) have also argued that cultures and those from different religious backgrounds differ in the amount of activation or arousal valued when one experiences positive affect. Specifically those from East Asian or Buddhist backgrounds tend to prefer low
activation positive affect (e.g., calm), whereas those from North American or Christian backgrounds tend to prefer high activation positive affect (e.g., excitement; Tsai et al., 2006; Tsai, Miao et al., 2007). Tsai and colleagues also provide an initial hypothesis regarding how these cultural differences may come about. In a recent study with European Americans and Taiwanese Chinese, they showed that children's books differ in content across cultures and may be a socialization factor in the preference of high versus low activation across cultures (Tsai et al., 2007). In addition, exposure to different kinds of stories was able to influence the behavior of children and their preferences for exciting versus calm activities. In terms of the present research, "enjoyment" was chosen as its activation level is open to interpretation and probably represents a broad positive affect dimension lying somewhere between calm and excitement. However, some evidence with Western participants and with emotions experienced in academic contexts suggests that enjoyment may be high in activation (Kleine, Goetz, Pekrun, & Hall, 2005; Pekrun, 1992). Research has yet to determine if enjoyment is viewed as high in activation among East Asian participants. Without further experimentation, it is difficult to tell whether the observed differences in affective forecasting and decision making across cultures would hold up under positive emotions that are lower in activation.
CONCLUSION

The current studies suggest that a revision of decision-making models may be necessary, especially those which contain expected positive affect as a predictor. We should be cognizant that not all individuals value positive affect to the same extent and that cultural differences may exist. It appears so far that such affective forecasts are still important for the decisions of those from East Asian or collectivistic cultures, but not by the same degree as those from North American or individualistic cultures. We hope that future research will help build on the current studies and help us obtain a much more fine-grained knowledge base of how culture influences the importance of affective forecasts for different kinds of emotions and in a variety of decision-making situations.
REFERENCES


APPENDIX I: COURSE DESCRIPTIONS FOR STUDIES 2 AND 3

Literature 959 (Analysis of Fairytales). Not many students rated the content of the course to be useful or applicable to their future courses or careers. However, the professor for this class is famed for lively and enthusiastic lectures with a high level of student participation and interaction - including live demonstrations and reenactments.

Science 943 (Applied Research Methods). Graduate schools often prefer students with this specialized course on their transcript – even if you are not applying to a graduate program in a science-related field. Each lecture starts off with a video clip from a new popular movie – something students have said is very entertaining and makes learning fun.

English 972 (Perfect Essay and Report Writing). Many lengthy PowerPoint presentations and very, very dim lights often make students in the class want to just go to sleep. Unfortunately the chairs are too uncomfortable to permit students to do so. However, this course looks great on a resume and many professional organizations and business are looking for students that have experience in this particular domain.

Math 958 (Applied Statistical Methods). The content of this course has a wide range of applications no matter what your major field of study. Students from nearly all domains will no doubt learn something that can be applied in practical situations. Students noted that the professor speaks in a sleep-inducing monotone voice, and lectures are often rather dry.

English 942 (Abstract Writing). Do not expect an easy “A” in this course. The professor refuses to get to know students and will not write letters of recommendations for anyone. Students often reported that the lectures were “less entertaining than average” and there were few opportunities for interaction and participation.

Science 974 (Theories of Scientific Knowledge). The professor for this course has been described as “dictator-like.” Everything is taken so seriously that students have reported lectures to be somewhat depressing. The content is also something you will probably not find to be helpful in your everyday life or in your future career – no matter what field you decide to enter.

Literature 966 (Famous Persuasive Essays). The professor gives some of the most entertaining lectures you will ever have at UBC. Students have found the content to be engaging and useful in their everyday lives. In addition, due to a small class size, the professor often offers to write letters of recommendations for all students in the class – for the purposes of graduate school applications, job applications, or scholarship applications.

Math 965 (The Magic of Numbers). The professor for this class has been known to hold class outside when the weather is nice. Several times during the term class discussions are held at the professor’s house on campus. The professor’s spouse is well known for her chocolate chip cookies - expect to go over course material while having your fill of these marvelous cookies and other snacks. Don’t expect the course content to be anything that your future employer will be interested in anyway – most businesses are not interested in hiring those with such skills.