



# ASSOCIATION FOR CONSUMER RESEARCH

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## **Does Variety Increase Happiness?**

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Does variety increase happiness? Three experiments demonstrate that variety often makes people happier, but not always. Although doing more varied activities over the course of a day, week, month, and year increases happiness, doing more varied activities over relatively short time intervals, like 30 minutes, reduces happiness.

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# What Makes People Happy? Antecedents and Consequences of Happiness

Chair: Jordan Etkin, Duke University, USA

## **Paper #1: Does Variety Increase Happiness?**

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## **Paper #2: Emodiversity and the Emotional Ecosystem**

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## **Paper #3: Celebrate or Commemorate? When Material Purchases Lead to Stronger Memories and More Happiness**

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## **Paper #4: Neglect of Emotional Losses in Compensation Decisions**

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### **SESSION OVERVIEW**

Being happy is perhaps the most common and important goal consumers have. Over the past decade happiness has received increasing attention from psychologists, economists, sociologists, and consumer researchers alike – indeed, ACR has devoted their annual conference to the theme of getting “Back to Fun.” Findings from these literatures provide much insight into how to measure happiness and why happiness is important (Diener et al. 1995; Diener and Seligman 2002; Dunn et al. 2008; Kahneman et al. 2004; Lyubomirsky et al. 2005; Mogilner 2010; Mogilner et al. 2012; Van Boven and Gilovich 2003). Yet, several questions have received less attention: What makes people happy? Can consumers actively manage their happiness? And how does (un)happiness shape decision-making?

Our session sheds light on these questions. The first two papers focus on the antecedents of happiness, drawing on diverse methodology and theory. Paper 1 (Etkin and Mogilner) begins by discussing how the degree of variety among consumers’ activities affects happiness. Three experiments demonstrate that while doing more varied things increases happiness over moderate to long time intervals (an hour, a day, a week, etc.), doing less varied things increases happiness over short time intervals (10 minutes, 30 minutes). Paper 2 (Quiodbach, Gruber, and Norton) builds on these findings by discussing how the emotional diversity consumers experience affects their happiness. Two cross-sectional studies show that over and above emotional valence, greater “emodiversity” corresponds to improved wellbeing.

Moving past antecedents, Papers 3 and 4 focus on how happiness relates to decision-making. Paper 3 (Dalton, Goodman, and Malkoc) challenge the notion that experiential consumption leads to greater happiness than material consumption. Three studies show that when people recalled a happy event (e.g., getting married), commemorating that event with a material purchase (vs. celebrating it with an experience) improved long-term memory of it, and increased how happy people felt when they thought about it. Finally, Paper 4 considers how (un)happiness affects decision-making in jury contexts. Eight studies utilizing diverse methods demonstrate that consumers underweight emotional losses, which affects how they compensate injured parties.

Together, these papers shed light on what makes people happy (activity variety, emotional diversity) as well as how happiness shapes consumers’ decisions (experimental vs. material consumption, jury decision-making). Further, they suggest multiple ways to manage fun and happiness in our lives: changing the variety of activities one does, the emotions one experiences, or the way one marks happy occasions. Whereas limited research to-date has explored such antecedents and consequences of happiness, the work presented in this special session begins to address this gap. Given the increasing interest in happiness and having fun in various consumer disciplines, the session is likely to attract a wide audience. Attendees can expect to have fun and the speakers not to take themselves too seriously.

### **Does Variety Make People Happy?**

#### **EXTENDED ABSTRACT**

Does variety increase happiness? Would an hour spent juggling emails, meetings, and data analysis or a workday focused only on data analysis lead to greater happiness? Would a Saturday spent bouncing from running errands, to cooking an elaborate dinner, to playing with one’s kids or a Saturday dedicated solely to playing with the kids lead to greater happiness? This research experimentally tackles this fundamental question of how best to spend one’s time—on more or less varied activities.

Prior research suggests that people generally value variety. People are stimulated by variety among thoughts (Pronin and Jacobs 2008), shapes (Beryline 1970), and food (Rolls et al. 1981), and they are drawn to highly varied product assortments (Kahn 1995; McAlister and Pessemier 1982; Simonson 1990). Furthermore, incorporating variety into positive experiences and relationships has been proposed as an effective means of countering hedonic adaptation (Bao and Lyubomirsky 2013; Lyubomirsky et al. 2005; Sheldon et al. 2012). It may thus be that integrating greater variety into people’s behavior more broadly will make them happier.

But, should variety always increase happiness? Although variety offers many benefits, it also imposes some costs. Variety is inherently complicated and complex (Beryline 1970). In fact, the very reason that variety may reduce hedonic adaptation is that it requires people to actively process dynamically changing information (Lyubomirsky et al. 2005; Sheldon and Lyubomirsky 2012). This complexity can be aversive. People are less satisfied with their choices, for example, when product assortments include too many varied options (Iyengar and Lepper 2000). Ultimately, varied sets demand more attention than similar sets, which can disrupt people’s ability to focus (Etkin and Ratner 2012; Folkes and Matta 2004; Redden and Hoch 2009). There may thus be times when infusing one’s schedule with variety feels too demanding to allow for happiness.

When, then, would incorporating more variety into one’s activities increase happiness, and when might it decrease happiness? The answer is likely tied to associated feelings of productivity. Doing more varied activities should generally make people feel as though more has been accomplished during that time period (Ahn et al. 2009; Zauberman et al. 2010). A day filled with varied activities, for example, should seem fuller than the same day filled with similar activities. When their time seems full, people feel more productive (Mogilner et al. 2012), and feeling productive is critical to happiness (Diener et al. 2009; Hsee et al. 2010; Seligman 2011).

This may backfire, however, when considering time intervals that are too short to accommodate high amounts of activity. Filling 30 minutes, for example, with highly varied activities may make people feel less productive, because there is too much to do to feel that anything has actually been accomplished. Consequently, although incorporating more variety into one's activities may increase happiness over most time periods (e.g., an hour, a day, a week, a month), it may instead decrease happiness over particularly short time periods (e.g., 30 minutes). We therefore suggest that whether variety makes people happier depends on the time interval over which people do more or less varied activities.

Three experiments test whether and when variety increases happiness. Experiment 1 examined how variety affects happiness over multiple periods of time. We varied whether MTurk participants recalled doing more or less varied activities during their past 10 minutes, 30 minutes, hour, day, week, month, and year, and then measured how happy they were over that time. A 2 (variety) X 2 (time interval) ANOVA revealed the predicted interaction ( $F(1, 595) = 5.14, p < .001$ ). As expected, recalling more (vs. less) varied activities did make people feel happier over an hour ( $M_{\text{high}} = 4.93$  vs.  $M_{\text{low}} = 4.30$ ), a day ( $M_{\text{high}} = 5.30$  vs.  $M_{\text{low}} = 4.45$ ), a week ( $M_{\text{high}} = 5.30$  vs.  $M_{\text{low}} = 4.73$ ), and a month ( $M_{\text{high}} = 5.07$  vs.  $M_{\text{low}} = 4.58$ ). This effect reversed, however, over the short time periods of 10 and 30 minutes. In these conditions, recalling less varied activities increased happiness (10 minutes:  $M_{\text{low}} = 4.90$  vs.  $M_{\text{high}} = 4.52$ ; 30 minutes:  $M_{\text{low}} = 5.01$  vs.  $M_{\text{high}} = 4.54$ ). These results held controlling for gender, age, and chronic need-for-stimulation.

The next two studies delve further into these findings by examining effects of actual (rather than perceived) variety among activities, and by manipulating whether a given time frame seems shorter or longer. Experiment 2 was a two-part study. Participants were recruited in the morning, assigned to do more or less varied activities over the course of the day, and then surveyed again at the end of that day, allowing us to test whether doing more or less varied things influenced change in happiness. To explore the underlying process, we also manipulated how long that day seemed (short vs. long), and measured productivity perceptions. Supporting our theorizing, doing more (vs. less) varied activities increased happiness when the day seemed long ( $M_{\text{high}} = .95$  vs.  $M_{\text{low}} = .04$ ), mediated by seeing time as more productive ( $ab = .11$ ; 95% CI: .03 to .24). This effect was attenuated, however, when the day was made to seem short ( $M_{\text{high}} = .46$  vs.  $M_{\text{low}} = -.05$ ).

Experiment 3 manipulated the variety of activities participants engaged in over a short amount of time (10 minutes), again varying whether that time seemed short or long. Contrary to the results for a long time interval, doing less (vs. more) varied activities increased happiness over 10 minutes ( $M_{\text{low}} = 4.76$  vs.  $M_{\text{high}} = 4.06$ ), mediated by increased productivity ( $ab = -.14$ ; 95% CI: -.40 to -.01), but this effect was attenuated when 10 minutes was made to seem short ( $M_{\text{low}} = 4.93$  vs.  $M_{\text{high}} = 4.73$ ).

In sum, this work provides the first empirical link between the variety of people's activities and their happiness, showing that doing more varied activities often makes people happier, but not always. For variety to increase happiness, a sufficiently long time period is required. Over particularly short time periods – namely, less than 30 minutes – doing a variety of different activities decreases feelings of productivity, resulting in less happiness.

## Emodiversity and the Emotional Ecosystem

### EXTENDED ABSTRACT

Compare three individuals: Person A experiences three moments of joy in a given day, Person B experiences two moments of joy and one moment of contentment, and Person C experiences two moments of joy and one moment of anxiety. If we sum the number of positive emotions (joy and contentment) and subtract the number of negative emotions (anxiety), A and B would be equally happy, and happier than C. Indeed, research suggests that high levels of positive emotion and low levels of negative emotion are an essential component of subjective well-being (Diener et al. 1999; Fredrickson 2001). Is subjective well-being simply the result of such simple arithmetic subtractions? We investigate whether not just the mean levels but also the *diversity* of emotions that people experience may have hidden benefits for their well-being. We show that the “emodiversity” of A, B, and C's emotions—the variety and relative abundance of the emotions they experience—is an independent and integral component of the human emotional ecosystem, one that predicts both mental and physical health.

We drew our prediction from research in the natural sciences on the benefits of biodiversity (i.e., the variety and abundance of different types of organisms within an ecosystem). Across habitats ranging from deep-sea to grassland through tropical forest, biodiversity has been repeatedly shown to foster adaptive functioning (e.g., Danovaro et al. 2008). Biodiversity promotes ecosystem resilience (Elmqvist et al. 2003) and fosters resistance to extreme and undesirable events such as diseases, pathogens, and invasive species (e.g., Knops et al. 1999).

Might diversity play a similarly critical role for the human internal emotional ecosystem? Certainly, the human mind is a natural system that shares important features with other natural systems (Johnston et al. 1998). In addition, biodiversity plays a key role in environmental health by enhancing adaptive flexibility (Heller and Zavaleta 2009; Rammel and Van den Bergh 2003); likewise, flexibility in human biological and psychological processes is associated with adaptive mental functioning and enhanced resistance to disease (Kashdan and Rottenberg 2010; Mikolajczak et al. 2010). As a result, we adapted the Shannon biodiversity index, which quantifies the number of species and the evenness of species in a biological ecosystem (Magurran 2004; Shannon 1948), to quantify emodiversity, or the richness (how many specific emotions are experienced) and evenness (the extent to which specific emotions are experienced in the same proportion) in the human emotional ecosystem.

In Study 1, 35,844 respondents reported their propensity to experience 9 specific positive and 9 specific negative emotional states, and completed a measure of mental health which assessed depression (MADR-S; Meites et al. 2008). We computed Shannon's biodiversity index for positive emotions, negative emotions, and all emotions and entered these emodiversity scores into a series of regressions predicting depression. Greater emodiversity, whether computed for positive emotions, negative emotions, or all emotions, was consistently linked to lower depression, independently of mean levels of positive and negative emotions. These associations were best characterized as linear and our findings remained robust after controlling for gender, age, and the five primary dimensions of personality.

In Study 2, we explored whether emodiversity also predicted physical health. We recruited a representative sample of adults through a large mailing conducted by a governmental health insurance service in Belgium ( $N = 1,310$ ). Respondents were asked to report their propensity to experience 10 specific positive and 10 specific negative emotional states, as well as a number of health-related

behaviors. In addition to these self-reported data, we obtained objective health measures from the health insurance service for each respondent over the last 11 years: number of visits to family doctors, number of days spent in hospitals, and the Defined Daily Dose (DDD), a typical indicator of medication consumption based on the average maintenance dose per day. Finally, we also obtained the total costs to the Belgian government for each of these expenses.

As before, mean positive emotion, mean negative emotion, and emodiversity scores were calculated for each respondent and entered into regressions predicting each health outcome. All measures of emodiversity were positively related to physical health, over and above mean positive emotion and mean negative emotion. The sizes of these effects were nontrivial: emodiversity was a stronger predictor of physical health than eating healthily, not smoking, and exercising frequently. These benefits were evident in decreased costs to the Belgian government as well: an increase of one standard deviation in overall emodiversity was equal to annual savings of 993.22 euros per person, per year, for the Belgian government.

Although the cross-sectional nature of this design precludes causal inferences, our findings dovetail with an emerging literature showing that a complete understanding of the impact of emotions on well-being requires more than an understanding of mere overall levels. For example, fluctuation around one's average level of emotion has been shown to be related to psychological-health above and beyond mean levels of emotions, while too much variability can be maladaptive (e.g., Gruber et al. 2013).

Why could emodiversity be beneficial for mental and physical health? As with research suggesting that biodiversity increases resilience to negative events because a single predator can't wipe out the entire biological ecosystem, it is possible that emodiversity prevents specific emotions—in particular detrimental ones such as acute stress, anger or sadness—from dominating one's emotional ecosystem (e.g., McEwen 2004). For instance, the experience of prolonged sadness might lead to depression but the joint experience of sadness and anger – although unpleasant – might prevent individuals from completely withdrawing from their environment. The same biodiversity analogy could be applied to positive emotion. Humans are notoriously quick to adapt to repeated exposure to a given positive emotional experience (Frederick and Loewenstein 1999); positive experiences that are diverse may be more resistant to such extinction.

While future research is needed to document the precise pathway by which emodiversity improves outcomes, our results taken together support the notion that emodiversity is a significant and previously unidentified metric for assessing the health of the human emotional ecosystem.

### **Celebrate or Commemorate? When Material Purchases Lead to Stronger Memories and More Happiness**

#### **EXTENDED ABSTRACT**

Imagine that you have just received a much-desired promotion and want to mark this milestone to make it more memorable for years to come. Should you celebrate the promotion with an experience (e.g., party or vacation) or commemorate it with a material purchase (e.g., watch or ring)? Recent research established an “experiential advantage,” demonstrating that when recalling past purchases, experiences lead to more happiness than materials (Nicolao, Irwin, and Goodman 2009; Van Boven and Gilovich 2003). These findings would lead to celebration (vs. commemoration) recommendation.

However, when honoring special life events, the purchase itself is not the main driver of happiness; instead, the purchase is made to help facilitate the memory of the event and to create positive affect

and happiness over time. One way to move an event into long-term memory is rehearsal, which reduces the natural decline in memory over time (Elster and Loewenstein 1992; Tulving and Thompson 1973; Thompson 1982). We argue that material items (vs. experiences) can enable this rehearsal better by serving as a reminder of the memory. That is material items might enhance a positive memory and allow for the consumer to extract more utility over time.

In this research, we propose when marking a special occasion, commemorating through material purchases (vs. celebrating with experiences) allows for rehearsal and thus lead to better memory for the event over time. Furthermore, rehearsal of an event not only increases vividness of ones' memory, but it also reduces the rate at which positive affect fades (Skowronski and Walker 2004). Accordingly, we predict that purchasing a material item to commemorate (versus an experience to celebrate) will lead to more vivid memory and stronger positive affect associated with a special event or achievement over a long period of time. However, since the rehearsal only influences long-term memory, we do not expect material advantage to emerge for short time intervals. Finally, since the advantage of commemoration appears over longer periods of time, we do not expect consumers to be able to predict the long-term advantage of commemorative purchases. Four studies provide support for these predictions.

In study 1 ( $n = 221$ ), we examined whether participants would predict a long-term memory advantage for commemorative (vs. celebratory) purchases in a 2 (purchase: celebrate vs. commemorate)  $\times$  2 (time horizon: 1 year vs. 2 year) between subjects design. We asked participants to imagine they are about to graduate and decide to spend \$300 to celebrate [commemorate] because they want to remember the day. We then asked how well and how vividly they expect to remember their graduation day in 1 [20] years, after making this purchase. Participants were accurate in predicting memory decay over time (i.e., they believed that their memory would fade over time,  $\beta = .18$ ,  $t(147) = 2.14$ ,  $p < .05$ ). However, they did not expect a memory advantage to commemorating over celebrating (*ns*), suggesting that consumers expect memory to decay similarly for both celebrations and commemorative purchases.

In study 2 ( $n = 151$ ), we examined if people predict that they will be happier with a commemorative (vs. celebratory) purchase to honor a special achievement. Participants imagined that they reached the end of their college career and received a \$1000 gift card to a jewelry store (commemorative) [to Travelocity (celebratory)]. They then indicated how happy they thought the purchase would make them and how much it would contribute to their life happiness. Contrary to the commemorative purchase advantage we show in the next two study, participants predict being happier with the gift card for a celebration than for a commemorative item ( $F(1, 148) = 61.84$ ,  $p < .001$ ). This shows that people are not aware of the higher level of happiness that commemorative purchases bring them (vs. celebratory purchases).

In study 3, we examined the memory for a special event when participants were primed either a celebration or commemoration. To control for the purchase type, we asked married participants ( $n = 151$ ) to describe either their wedding reception (a celebratory experience) or their wedding ring (a commemorative material good). Participants rated their memory of this special occasion, how well their purchase reminds them of this occasion, and how long they had been married. As expected, we found a significant type of purchase (celebration/commemoration) by time since marriage interaction for both the memory measures ( $\beta = .23$ ,  $t(147) = 2.74$ ,  $p = .007$ ). Immediately after the wedding, individuals had a more vivid memory when they thought about their celebration compared to their commemorative

item ( $p$ 's < .01). However, as time passed, people who thought about their commemorative purchase had a better memory of their wedding) than those who thought about their celebratory purchase ( $p$ 's < .05). This study shows that over time, material items can enhance memory compared to an experience.

In study 4 ( $n = 148$ ), we extended our findings to positive affect, by examining whether participants have (1) a better memory and (2) greater positive affect associated with their graduation day based on how they marked this special event (celebration vs. commemoration) We asked all participants to think back to their most important graduation, and then asked them to either recall how they commemorated or celebrated. Participants then responded to four measures: memory (how vividly they remember the day), purchase reminder (indicated how well the purchase reminds them of graduation), happiness (positive affect when recalling the day), and years since graduation. We found the same significant time by celebrate/commemorate interaction on memory of the day ( $\beta = -.61$ ,  $t(144) = -2.06$ ,  $p = .04$ ). Bootstrapping analysis showed a significant indirect effect through the purchase reminder mediator on memory (95% CI =  $-.26$ ,  $-.002$ ). Further, bootstrapping analysis also revealed a significant indirect effect of memory on happiness (95% CI =  $-.12$ ,  $-.003$ ), suggesting that a commemorative purchase can increase the positive affect associated with an event over time by serving as a better reminder of the event.

In sum, these results not only provide a key exception to the experiential advantage, but they also demonstrate an important role of material goods in consumer happiness. The results suggest that consumers should commemorate instead of celebrate special occasions, if they want to increase happiness and protect special memories of events and achievements.

### Neglect of Emotional Losses in Compensation Decisions

#### EXTENDED ABSTRACT

Of the losses people suffer, many are emotional losses such as fear, grief and anxiety, and many emotional losses are inflicted by others. Emotional losses entail grim consequences, as they lower the subjective wellbeing of the affected persons. The current research studies how laypersons serving as mediators and jurors make compensation decisions for emotional losses. The research finds a general tendency in them to overlook emotional losses, especially when there are economic losses present.

Our theory builds on three propositions. First, most people believe that emotional losses should be compensated for. Second, people prefer to base their decisions on “hard” (objective, tangible, material and substantial) factors rather than on “soft” (subjective, intangible, immaterial, and unsubstantial) factors. Third, people perceive emotional losses to be soft relative they perceive economic losses. Thus, we propose that people will base their compensation judgments on emotional losses when the emotional losses are the only losses and will ignore emotional losses and base their compensation judgments on economic losses instead if there are both emotional and economic losses. Based on this analysis, we predict a counter-normative effect in compensation decisions: Holding the emotional loss constant, people will award less compensation to the victim of an emotional loss if the victim also incurs a small economic loss than if the victim incurs only the emotional loss. We refer to this anomalous effect as the less-for-more effect. According to our theory, the reason for the less-for-more effect is that emotional losses appear soft relative to economic losses. Therefore, we also predict that the less-for-more effect will disappear if the emotional loss is removed or replaced by an economic loss, or if the emotional loss is

“hardened” (e.g., monetized) before making a compensation judgment. In summary, we have the following hypotheses:

*Hypothesis 1* Holding the emotional loss a person incurs constant, people will award less compensation to the person if the person also incurs a small economic loss than if the person incurs no economic loss.

*Hypothesis 2* The less-for-more effect hypothesized in H1 will disappear if the emotional loss is replaced by an economic loss.

*Hypothesis 3* The less-for-more effect hypothesized in H1 will disappear if the emotional loss is monetized prior to making a compensation decision.

We tested these hypotheses in a set of seven experiments. Experiment 1 tested H1 and demonstrated the basic less-for-more effect using a car-accident scenario, in which a reckless driver hit an old woman and inflicted grave psychological distress on her. We found that participants awarded lower compensation to the victim if she also incurred a small economic loss than if she did not, regardless of whether the value of the economic loss was specified or not. The finding suggested that if there was no economic loss people based their compensation decision on the emotional loss, but there was a small economic loss people based their compensation decision on the small economic loss instead.

Experiment 2 and Experiment 3 replicated the less-for-more effect when compensation was service time (Experiment 2) or course credits (Experiment 3) rather than monetary payment. These results were important, because they ruled out stimulus-response compatibility as an alternative explanation for the less-for-more effect.

Experiment 4 tested H2 by manipulating the presence or absence of an economic loss. It found that the less-for-more effect occurred only if there was an emotional loss and disappeared if the emotional loss was removed. Experiment 5 further tested H2 by showing that the less-for-more effect disappeared when the emotional loss was replaced by an economic loss.

Experiment 6 and 7 tested H3 by exploring another moderator – monetization of the emotional loss. The results showed that monetizing the emotional loss before making a compensation decision removed the less-for-more effect and boosted compensations for the emotional loss.

This research makes multiple contributions. Empirically, it demonstrates a robust and counter-normative less-for-more effect and reveals the tendency to neglect emotional losses in the presence of economic losses. Theoretically, it corroborates existing research by showing a dualism in decision makers: they acknowledge the role of soft factors in well-being yet are unwilling to base decisions on such factors. This has implications not only for judgments involving emotional versus economic factors but also for judgments involving soft and hard factors in general. Prescriptively, this research suggests two strategies for emotional-loss victims to claim compensations: do not mention economic losses unless they are large, and nudge mediators to monetize the emotional losses before making their compensation decisions.

Like economic losses, emotional losses hurt the wellbeing of the injured person. The current research draws public attention to such losses, and suggests ways to make compensations for emotional losses fairer.

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