Curriculum Vitae

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Updated 06/2022

BASIC INFORMATION

Ph.D. (psychology), Yale University

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RESEARCH INTERESTS

Psychology of judgment and decision-making, consumer psychology, marketing, organizational behavior, emotion, happiness and subjective wellbeing, cross-culture psychology, behavioral economics and behavioral game theory

SELECTED PROFESSIONAL SERVICES AND HONORS

Distinguished Scientist Award from the Society for Consumer Psychology (SCP)

Nicosia Best Competitive Paper Award from the Association of Consumer Research (ACR)

Fellow of the Association for Psychological Science (APS) "for sustained and outstanding distinguished contributions to psychological science"

Former President of the Society of Judgment and Decision Making (SJDM).

McKinsey Award for Excellence in Teaching from Chicago Booth

Phoenix Award (for having greatly enriched the learning experiences of the students through voluntary extracurricular and community activities) from Chicago Booth.

PUBLISHED PAPERS (including abstracts for recent publications)

*If a coauthor's name is *italicized*, it means he/she was a student or supervisee of mine during part or the entire project.

Li, *X.*, Hsee, C. K. & O'Brien, E. (2022). "It could be better" can make it worse: When and why people mistakenly communicate upward counterfactual information. <u>Journal of Marketing Research</u>, forthcoming.

Abstract; Imagine you are a realtor and are showing a prospective buyer a house with a lake view. Unfortunately, it is foggy outside and it is hard to see the lake. Might you be inclined to tell the prospective buyer, "If it were not foggy, the view would be even better!"? Eight studies, spanning diverse consumer domains from selling products to giving business presentations, reveal a novel discrepancy: Most presenters (e.g., the seller) choose to communicate such upward counterfactual information (UCI) to experiencers (e.g., the prospective buyer), believing it will enhance experiencers' impressions (e.g., of the house)—yet UCI worsens their impressions (Studies 1-5). This discrepancy arises because presenters insufficiently account for the fact that they possess more knowledge about the presented target, including its flow, than experiencers do, failing to realize that noting an imperfection reveals it. Accordingly, when experiencers are knowledgeable about the target, either because the imperfection is obvious (Study 6) or because experiencers can easily envision the upward-counterfactual version of the target (Study 7), presenters' decisions to communicate UCI become less problematic. Finally, this discrepancy emerges specifically when counterfactual information is upward, not downward (Study 8)—ruling out a desire to share any information as an alternative mechanism for presenters' communication decisions. Together, this research highlights the prevalence and costs of sharing UCI.

Yang, Y., Li, X., & Hsee, C. K. (2022). Relevance insensitivity: A framework of psychological biases in consumer behavior and beyond. Consumer Psychology Review, forthcoming.

Abstract: In judgment and choice, consumers show a variety of biases, from the sunk cost fallacy and the mere categorization effect to usage frequency neglect and erroneous price-quality inferences. This article explain these seemingly disparate biases and predict new biases using an overarching framework based on the relevance insensitivity theory proposed by Hsee, Yang and Li (2019). According to the theory, many biases arise because people are insufficiently sensitive to the relevance (i.e., weight) of a cue variable to the target variable (the dependent variable). The direction of the bias depends on the normative relevance of the cue—people over-rely on the cue when it is normatively irrelevant and under-rely on the cue when it is normatively highly relevant. We show that ostensibly unique and universal biases are neither unique nor universal: all are manifestations of relevance insensitivity, and each bias attenuates or reverses as the cue variable's relevance changes.

Hsee, C. K., *Zeng, Y., Li, X.* & Imas, A. (2021). Bounded rationality in strategic decisions: Undershooting in a resource pool-choice dilemma. <u>Management Science</u>, *67*(10), 6553-6567.

Abstract: This research studies a resource *pool-choice dilemma*, in which a group of resource seekers independently choose between a larger pool containing more resources and a smaller pool containing fewer resources, knowing that the resources in each pool will be divided equally among its choosers, so that the more (fewer) people choose a certain pool, the fewer (more) resources each of them will get. This setting corresponds to many real-world situations, ranging from students choosing majors as a function of job opportunities, to entrepreneurs choosing markets as a function of customer bases. Ten studies reveal a systematic *undershooting bias*: fewer people choose the larger pool relative to both the normative equilibrium benchmark and chance (random choice), thus advantaging those who chose the larger pool and disadvantaging those who chose the smaller pool. We present evidence that the undershooting bias is driven by bounded rationality in strategic thinking, and discuss the relationship of our paradigm with other coordination games.

Yang, A.. & Hsee, C. K. (2021). Obligatory publicity increases charitable acts. <u>Journal of Consumer Research</u>, 48(5), 839-857.

Abstract: To entice new donors and spread awareness of the charitable cause, many charity campaigns encourage donors to broadcast their charitable acts with self-promotion devices such as donor pins, logoed apparel, and social media hashtags. However, this voluntary publicity strategy may not be particularly attractive because potential donors may worry that observers will attribute their publicized charitable behavior to "impure" image motives rather than "pure" altruistic motives. We propose and test a counterintuitive campaign strategy—obligatory publicity, which *requires* prospective donors to use a self-promotion device as a prerequisite for contributing to the campaign. Five studies (N = 10,866) test the application and effectiveness of the proposed strategy. The first three studies, including two field experiments, find that obligatory-publicity campaigns recruit more contributions and campaign promoters than voluntary-publicity campaigns. The last two studies demonstrate that the obligatory-publicity strategy produces a greater effect among people with stronger image motives and that the effect is mitigated when the publicized charitable act signals a low level of altruism. Finally, we discuss limitations and implications of this research.

Yang, Y., Hsee, C. K. & *Li*, *X*. (2021). Prediction biases: An integrative review. <u>Current</u> Directions in Psychological Science, *30*(3), 195-201.

Abstract: Research in psychology and related fields has documented a myriad of prediction biases (forecasting errors), such as the under-prediction of hedonic adaptation and the over-prediction of others' concern for fairness. These prediction biases are ostensibly independent, each with its own cause. We argue, however, that many of these seemingly disparate biases are specific instances of a general bias—situation insensitivity:

predictors are insensitive to variations in the situational variable(s) that underlie the target variable (the variable to be predicted). Consequently, when encountering a condition in which the situational variable is at one of its ends such that the value of the target variable is low, people over-predict the value; conversely, when encountering a condition in which the situational variable is at its other end such that the value of the target variable is high, people under-predict it. Most prior research documenting prediction biases has focused on only one end of the situational variable and therefore has observed either only an over-prediction bias or only an under-prediction bias. We argue that at the other end of the situational variable, the originally documented bias can disappear or even reverse. This article offers an integrative framework that not only explains known biases but also predicts new biases.

Zhang, S., Sussman, A. & Hsee, C. K. (2021). A dragging-down effect: Consumer decisions in response to price increases. <u>Journal of Consumer Research</u>, 47(5), 772-786.

Abstract: Four studies, across a range of domains, find a *dragging-down effect* in which consumers purchase fewer units of a product when a discount applies to more units. For example, consumers buy fewer peaches when each customer can buy up to three peaches at a discount than when each customer can buy only one peach at a discount or when there is no discount at all. In contrast to basic economic principles, this dragging-down effect implies that consumers purchase less (more) when the per-unit price is lower (higher). We propose—and our results support—an acceptability account: consumers will adopt the maximum discounted quantity as their purchase quantity if that quantity falls within an acceptable range, and will ignore that quantity and purchase their initially preferred quantity instead if the maximum discounted quantity falls below the acceptable range. The current work enriches existing research on anchoring and pricing, and carries implications for consumers, marketers, and policy-makers.

Li, X. & Hsee, C. K. (2021). The psychology of marginal utility. <u>Journal of Consumer Research</u>, 48(1), 169-188.

Abstract: That wealth has diminishing marginal utility is a fact of life, and that people be sensitive to their current level of wealth when deciding whether to pursue additional wealth is a requirement of rational choice. A series of experiments, spanning diverse contexts, reveal marginal-utility neglect—that people are rather insensitive to their current wealth when deciding how much effort to expend to acquire a monetary reward (e.g., how long to walk to claim a voucher). Moreover, the experiments demonstrate that a marginal-utility-prompting manipulation, which prompts people to consider their current wealth and their need for the reward given their current wealth, produces a significant sensitization effect—making financially richer (vs. less rich) individuals less (vs. more) willing to seek the reward. This manipulation is more effective than either prompting people to consider their current wealth alone or consider their need for the reward alone, suggesting that marginal-utility prompting does not merely draw people's attention to their current wealth or merely draw their attention to their need for the reward, but links the two elements. This research elucidates the psychology of marginal utility and yields implications beyond the pursuit of monetary rewards.

Li, *X.*, Hsee, C. K., & Wang, L. (2021). Incivility awareness could save lives. Behavioral Science & Policy, 7(1), 1-8.

Abstract: We introduce the idea of deterring undesirable behaviors by raising incivility awareness—sensitivity to when one is violating norms of civil behavior. We demonstrate that this approach is effective in deterring pedestrians from crossing intersections at red lights, which is a serious worldwide safety problem. In three field experiments conducted at urban intersections (involving more than 12,000 total observations), we found that posting signs raising pedestrians' incivility awareness significantly reduced red-light crossing rates. We also found that the incivility-awareness message of "Crossing at the red light is uncivil" made those signs more effective than signs with messages that emphasized the importance of not crossing at a red light ("Don't cross at the red light"), civil behavior ("Waiting for the green light is civil"), safety ("Waiting for the green light is good for safety"), and danger ("Crossing at the red light is bad for safety").

Li, *X.*, Hsee, C. K., & Wang, L. (2021). People hedonically adapt more slowly to social income changes than to temporal income changes. <u>Journal of Experimental Psychology: Applied</u>, 27(1), 46-56.

Abstract: People hedonically adapt to most changes, and they adapt more slowly to some changes than to other changes. This research examines hedonic adaptation to income changes, and asks whether people adapt more slowly to temporal or social income changes. Four experiments, manipulating the actual pay rate of online workers, find that people adapt more slowly to social income changes (e.g., an increase in others' income while keeping one's own income unchanged) than to temporal income changes (e.g., an increase in everyone's income). This pattern holds for both negative changes

(Experiment 1) and positive changes (Experiments 2, 3, and 4) and can be explained by a differential-consideration account (Experiment 3). These results suggest that in the short run, both temporal and social changes influence one's hedonic experience, but in the long run, what influences one's hedonic experiences is how much one earns relative to how much others earn, and not how much one earns now relative to how much one used to earn. This research enriches existing literature on hedonic adaptation and on social versus temporal changes, and yields managerial and policy implications for the impact of income changes on subjective well-being over time.

Li, *X.*, & Hsee, C. K. (2021). Free-riding and cost-bearing in discrimination. <u>Organizational</u> <u>Behavior and Human Decision Processes</u>, *163*, 80-90.

Abstract: We study how the temporal positions in which a disadvantaged person (e.g., an unattractive-looking customer) and an advantaged person (e.g., an attractive-looking customer) encounter an actor (e.g., a vendor) influence the treatment they get from the actor (e.g., the prices the vendor offers). Three experiments, including a field experiment and a pre-registered experiment, incorporate three types of personal attributes (physical appearance, nationality, and gender) and find both a *free-riding effect* for the disadvantaged person and a *cost-bearing effect* for the advantaged person. Specifically, the disadvantaged person receives better treatment by following the advantaged person, and the advantaged person receives worse treatment by following the disadvantaged person. These effects occur only if the attribute that differentiates the disadvantaged and advantaged persons is perceived as unjustifiable, and they disappear if the attribute is perceived as justifiable, suggesting that these effects are due not to anchoring, but to the actor's need for justifiability. This research highlights the importance of choice architecture in discrimination and its prevention.

Hsee, C. K., Yang, Y., & *Li*, *X*. (2019). Relevance insensitivity: A new look at some old biases. Organizational Behavior and Human Decision Processes, *153*, 13-26.

Abstract: People show systematic biases in judgment and decision making. We propose that many seemingly disparate biases reflect a common underlying mechanism—insensitivity to the relevance of some given information—and that manipulating the relevance of the information can eliminate or even reverse the original bias. We test our theory in four experiments, each focusing on a classic bias—the sunk cost fallacy, non-regressive prediction, anchoring bias, and base rate neglect, and show that people over-rely on a given piece of information when it is irrelevant, thus exhibiting one bias, and under-rely on the same piece of information when it is highly relevant, thus showing a reverse bias. For example, when a past cost is irrecoverable and hence irrelevant to future cost, people over-rely on it when making a decision for the future, thus exhibiting the classic sunk cost fallacy, but when the past cost is fully recoverable and hence highly relevant to future cost, people under-rely on it, thus showing the reverse of the sunk cost fallacy. We also find that when people are made sensitive to the relevance of the information, both the original biases and their reverse biases are attenuated. This research offers a new look at these "old" biases, suggesting that each individual bias is not general

because it can be reversed, but collectively, these biases are general because they all reflect relevance insensitivity.

Lu, *Z*., & Hsee, C. K. (2019). Less willing to pay but more willing to buy: How the elicitation method impacts the valuation of a promotion. <u>Journal of Behavioral Decision Making</u>, 32(3), 334-345.

Abstract: Willingness to pay (WTP—how much one is willing to pay for something) and willingness to buy (WTB—whether one is willing to buy something at a given price) are two common methods to elicit valuations and normatively should yield the same valuation order between two options. However, this research finds that WTP and WTB can yield opposite valuation orders between the regular offer and the promotional offer of a product. Specifically, it demonstrates: (a) if the valuation of a product is only elicited with WTP, consumers value the product less when it is offered with a price promotion than when it is not; (b) if the valuation of a product is only elicited with WTB, consumers value the product more when it is offered with a price promotion than when it is not; and (c) if the valuation of a product is first elicited with WTP and then elicited with WTB, consumers always value the product less when it is offered with a price promotion than when it is not. A value-inference account is proposed for the above findings, according to which, consumers infer the value of a promoted product differently when the valuation is elicited only with WTP or only with WTB. Theoretically, this research extends prior literature on sales promotion, showing that the valuation of a promotion is subject to the elicitation method. Practically, this research suggests how to help consumers manage their purchase intentions for promoted products.

Hsee, C. K. & *Ruan*, *B*. (2019). Curiosity and its implications for consumer behavior. In D. Iacobucci (ed.) <u>Review of Marketing Research</u>.

Curiosity is an important realm of human behavior. It is relevant to many activities that interest marketers. In this chapter, we examine the psychological and behavioural consequences of curiosity, highlight the importance of curiosity resolution, and discuss the costs and benefits of curiosity in marketing and other domains.

Li, *X.*, & Hsee, C. K. (2019). Beyond preference reversal: Distinguishing justifiability from evaluability in joint versus single evaluations. <u>Organizational Behavior and Human</u> Decision Processes, *153*, 63-74.

Abstract: Extensive existing research has studied how decisions differ between joint evaluation (JE) and single evaluation (SE), but most of the research aims to demonstrate preference reversals between two alternatives that vary on two attributes simultaneously. Thus, extant research cannot tell whether the reversal occurs because one of the attributes has a greater effect in JE than in SE, or the other attribute has a greater effect in SE than in JE, or both. Going beyond preference reversals, this research examines options that vary on only one attribute and studies whether the single attribute has a greater effect in JE or SE. We posit that any single attribute has two underlying characteristics—

evaluability (i.e., whether people can evaluate a given value of the attribute without having to compare it with other values) and justifiability (i.e., whether people believe they should base their decisions on the attribute). Whether the single attribute has a greater effect in JE or SE depends on both the attribute's evaluability and justifiability. Specifically, (a) a high-justifiability/low-evaluability attribute (e.g., whether a candidate for a programming job has written 100 or 200 programs) has a greater effect in JE than in SE, and (b) a low-justifiability/high-evaluability attribute (e.g., whether the candidate belongs to a discriminated-against minority group) has a greater effect in SE than in JE. While the first proposition has been tested in prior research on evaluability, the second has not. Four experiments, including one in a naturally-occurring setting and another with orthogonal manipulation of evaluability and justifiability, tested and supported these propositions, especially the second.

Li, *X.*, & Hsee, C. K. (2019). Being "rational" is not always rational: Encouraging people to be rational leads to hedonically suboptimal decisions. <u>Journal of the Association for</u> Consumer Research, *4*(2), 115-124.

Abstract: Often, laypeople motivate themselves or others to make good decisions by encouraging the decision maker to be "rational." However, this practice can be counterproductive. Laypeople typically think that "rational" decisions are anti-emotional, based only on "cold" factors such as economic value, and not influenced by "hot" factors such as hedonic experience. Paradoxically, this lay notion of rationality is in stark contrast with the utilitarian notion of rationality, which maximizes overall utility, in which feelings are essential. Demonstrating this paradox, three studies found that participants who were encouraged to be "rational" were more likely to choose options that yielded less happiness without other benefits, and therefore were less rational in the utility-maximizing sense.

Shen, L., Hsee, C. K. & Talloen, J. (2018). The fun and function of uncertainty: Uncertain incentives reinforce repetition decisions. Journal of Consumer Research, 46(1), 69-81.

Abstract: This research studies repetition decisions, namely, whether to repeat a behavior (e.g., a purchase) after receiving an incentive (e.g., a discount). Can uncertainty drive repetition? Four experiments, all involving real consequences to each individual participant, document a counterintuitive reinforcing-uncertainty effect: individuals repeat a behavior more if its incentive is uncertain than if it is certain, even when the certain incentive is financially better. This effect is robust; it holds in both lab and field settings and at both small and large magnitudes. Furthermore, the experiments identify two theory-driven boundary conditions for the reinforcing-uncertainty effect: the effect arises (a) only if the uncertainty is resolved immediately and not if the resolution of uncertainty is delayed, and (b) only after, not before, one has engaged in repetitions. These results support a resolution-as-reward account and cast doubt on other explanations such as reference-dependent preferences. This research reveals the hidden value of uncertain incentives and sheds light on the delicate relationship between incentive uncertainty and behavioral repetition.

Ruan, B., Hsee, C. K. & Lu, Y. (2018). The teasing effect: An underappreciated benefit of creating and resolving an uncertainty. <u>Journal of Marketing Research</u>, 55(4), 556-570.

Abstract: Six studies covering diverse contexts show an underappreciated benefit of teasing in information acquisition: first creating and then resolving an uncertainty can generate a net positive experience, yet laypeople do not seek out this process. For example, trivia readers report better hedonic experiences if they are first teased with some missing information and then given that information than if they receive all the information at the same time, but when given a choice, readers prefer to receive all information at the same time. The authors further show that teasing is hedonically beneficial because that uncertainty engenders curiosity and thereby *builds a potential* for a positive experience, whereas uncertainty resolution resolves the curiosity and thereby *realizes that potential*. This research yields practical implications by demonstrating that imbuing an ad with an uncertainty-creation-resolution process improves the viewer's attitude toward and increases the viewer's willingness to try the advertised product.

Yang, A., & Hsee, C. K. (2018). Idleness versus busyness. <u>Current Opinion in Psychology</u>. 28, 15-18.

Abstract: The elapse of time disregards the human will. Yet different uses of time result in distinct perceptions of time and psychological consequences. In this article, we synthesize the growing research in psychology on the actual and perceived consumption of time, with a focus on idleness and busyness. We propose that the desire to avoid an unproductive use of time and the ceaseless pursuit of meaning in life may underlie many human activities. In particular, while it has been long presumed that people engage in activities in order to pursue goals, we posit a reverse causality: people pursue goals in order to engage in activities.

Zhu, M., Yang, Y. & Hsee, C. K. (2018). The mere urgency effect. <u>Journal of Consumer Research</u>, *45*(3), 673-690.

Abstract: In everyday life, people are often faced with choices between tasks of varying levels of urgency and importance. How do people choose? Normatively speaking, people may choose to perform urgent tasks with short completion windows, instead of importance tasks with larger outcomes, because important tasks are more difficult and further away from goal completion, urgent tasks involve more immediate and certain payoffs, or people want to finish the urgent tasks first and then work on important tasks later. The current research identifies a mere urgency effect, a tendency to pursue urgency over importance even when these normative reasons are controlled for. Specifically, results from five experiments demonstrate that people are more likely to perform unimportant tasks (i.e., tasks with objectively lower payoffs) over important tasks (i.e., tasks with objectively better payoffs), when the unimportant tasks are characterized merely by spurious urgency (e.g., an illusion of expiration). The mere urgency effect documented in this research violates the basic normative principle of dominance—choosing objectively worse options over objectively better options. People behave as if

pursuing an urgent task had its own appeal, independent of its objective consequence

Tu, Y. & Hsee, C. K. (2018). Hedonomics: On subtle yet significant determinants of happiness. In E. Diener, S. Oishi, & L. Tay (Eds.), e-Handbook of Well-Being. Noba Scholar encyclopedia series: Subjective well-being. Salt Lake City, UT: DEF publishers.

Abstract: One way to pursue happiness is to improve the objective levels of external outcomes such as wealth; that is an economic approach. Another way to pursue happiness is to improve the arrangement of and choices among external outcomes without substantively altering their objective levels; that is a *hedonomic* approach. This chapter reviews research adopting the latter approach. Specifically, we present a list of subtle yet significant determinants of happiness from four aspects: (1) pattern of consumption, (2) procedure of consumption, (3) (mis)match between the choice phase and the consumption phase, and (4) type of consumption. Although far from comprehensive, these factors offer implications for "choice architects" – government, companies, and individual consumers – on improving happiness.

Tennant, R. & Hsee, C. K. (2017). Hedonic non-durability revisited: A case for two types. <u>Journal of Experimental Psychology: General</u>, *146*(12), 1749.

Abstract: Hedonic durability refers to the extent to which the hedonic impact of a change lasts, that is, how long the unhappiness from a loss (or happiness from a gain) will endure over time. The lesson from previous research on this topic has been that the long-term effect of most changes (e.g., larger incomes, bigger houses, shorter commutes) is negligible. The present research shows something different. Consistent with previous research, we observed a pattern of hedonic non-durability in which the impact of a change did not endure over time. However, we also observed a pattern of hedonic durability in which the impact of a change does endure over time. We demonstrate differential rates of hedonic durability for losses, both across variables (Experiment 1) and within different ranges of the same variable (Experiment 2). We also extend our research to show differential rates for gains (Experiment 3). Our findings beg the following question: Why do certain changes show a pattern of non-durability, whereas other changes show a pattern of durability? We propose a distinction between preference types, arguing that some preferences derive value from relative standing, whereas others have significant absolute value that is independent of comparisons.

Zhang, S., Hsee, C. K. & Yu, S. (2017). Small economic losses lower total compensation for victims of emotional losses. <u>Organizational Behavior and Human Decision Processes</u>, 144, 1-10.

Abstract: This article explores an important yet understudied topic – the lay public's opinion of fair compensation for victims of emotional losses (emotional suffering). Four experiments, covering diverse contexts, find an anomalous phenomenon: laypeople would award *less* compensation to someone incurring an emotional loss if the person also

incurs a small economic loss than if the person incurs little or no economic loss. We explain the effect using an anchoring account: if the victim incurs little or no economic loss, people will base their assessment of total compensation on what they consider the emotional loss is worth; if the victim also incurs a non-trivial economic loss, people will anchor their assessment on the economic loss, and if the economic loss is small, the compensation will also be small. In other words, the presence of an economic loss "crowds out" the emotional loss in assessment of total compensation. This research enriches our knowledge about how laypeople make compensation decisions for emotional losses, and when they use economic losses as anchors.

Shen, L. & Hsee, C. K. (2017). Numerical nudging: Using an accelerating score to enhance performance. <u>Psychological Science</u>, 28(8), 1077-1086.

Abstract: People often encounter inherently meaningless numbers, such as scores in health apps or video games, that increase as they take actions. This research explored how the pattern of change in such numbers influences performance. We found that the key factor is acceleration—namely, whether the number increases at an increasing velocity. Six experiments in both the lab and the field showed that people performed better on an ongoing task if they were presented with a number that increased at an increasing velocity than if they were not presented with such a number or if they were presented with a number that increased at a decreasing or constant velocity. This acceleration effect occurred regardless of the absolute magnitude or the absolute velocity of the number, and even when the number was not tied to any specific rewards. This research shows the potential of numerical nudging—using inherently meaningless numbers to strategically alter behaviors—and is especially relevant in the present age of digital devices.

Jia, J., Jia, J., Hsee, C. K. & Shiv B. (2017). The role of hedonics in reducing perceived risk: Evidence from post-earthquake mobile-app data. <u>Psychological Science</u>, 28(1), 23-35.

Abstract: Understanding how human populations naturally respond and cope with risk is important for fields ranging from psychology to public health. We use geophysical and individual-level mobile phone data (mobile apps, telecommunications, internet usage) of 157,358 victims of the 2013 Ya'an earthquake to diagnose the effects of the disaster and investigate how experiencing real risk (at different levels of intensity) changes behavior. Rather than limiting human activity, higher earthquake intensity yielded graded increases in communications (e.g., social networking, messaging), functional (e.g., informational tools), and hedonic (e.g., music, videos, games) behavior. Combining mobile data with a field survey (N = 2000) completed 7 days after the earthquake, we use an instrumental variable approach to show that only hedonic behavior reduced perceived risk, and potentially serves as a population-scale coping and recovery strategy that is often missing in risk management and policy considerations.

Hsee, C. K. & *Ruan*, B. (2016). The Pandora effect: The power and peril of curiosity. Psychological Science, 27(5), 659-665.

Abstract: Curiosity – the desire for information – underlies many human activities, from reading celebrity gossip to developing nuclear science. Curiosity is well recognized as a human blessing. Is it also a human curse? Tales such as Pandora's box suggest it is, but scientific evidence is lacking. Four controlled experiments demonstrate that curiosity can lead humans to expose themselves to aversive stimuli (even electric shocks) for no apparent benefits. The research suggests that humans possess an inherent desire, independent of consequentialist considerations, to resolve uncertainty; when facing something uncertain and feeling curious, they will act to resolve the uncertainty even if the consequences are expectedly negative. This research reveals the potential perverse side of curiosity, and is particularly relevant to the current epoch, the epoch of information, and to the scientific community, a community with high curiosity.

Tu, Y. & Hsee, C. K. (2016). Consumer happiness derived from inherent preferences versus learned preferences. <u>Current Opinion in Psychology</u>, 10, 83-86.

Abstract: We distinguish between two types of preferences. One is inherent (e.g., preference for warm over cold temperature); it is formed early in evolution and largely stable. The other is learned (e.g., preference for large over small diamonds); it is acquired more recently, and variable across time and contexts. We propose that compared with inherent preferences, learned preferences 1) rely more on social comparison, resulting in a relative effect on happiness, and 2) are more prone to hedonic adaptation, resulting in a transient effect on happiness. In addition, we propose that preferences about resource-related attributes (e.g., size of home) are inherent in low-value regions, and learned in high-value regions. We discuss implications of this analysis for improving consumer subjective well-being.

Hsee, C. K., Yang, Y. & *Ruan*, B. (2015). The mere reaction effect: Even non-positive and non-informative reactions can reinforce actions. <u>Journal of Consumer Research</u>, 42(3), 420-434.

Abstract: Building on and extending existing research on feedback, learning and motivation, the current research studies the effect of reactions on actions, and finds that reactions per se are reinforcing even if they are *a priori* non-positive and non-informative. Specifically, eight experiments, including a field experiment, demonstrate that individuals are more likely to repeat an action (e.g., inserting money in a donation box or typing a message in a textbox) if the action is followed by a reaction (e.g., the emission of a sound or the flash of an image) than if it is not, even if the reaction is *a priori* negative (e.g., an annoying sound or an aversive image) and carries no useful information. Moreover, the reaction effect described above will occur only if the reaction-serving stimulus is contingent on (immediately follows) the action. Finally, an *a priori* non-positive stimulus can become positive by merely serving as a reaction to one's action. The present work yields theoretical implications for stimulus-response relationships and practical implications for designs of consumer products and loyalty programs.

Hsee, C. K., Yang, Y., Zheng, X. & *Wang, H.* (2015). Lay rationalism: Individual differences in using reason versus feelings to guide decisions. <u>Journal of Marketing Research</u>, 52(1), 134-146.

Abstract: People have a lay notion of rationality—using reason rather than feelings to guide decisions. Yet individuals differ in the degree to which they actually base their decisions on reason versus feelings. This individual difference variable is potentially general and important but is largely overlooked. The present research (a) introduces the construct of *lay rationalism* to capture this individual difference variable and distinguishes it from other individual-difference variables, (b) develops a short and easy-to-implement scale to measure lay rationalism and demonstrates the validity and reliability of the scale, and (c) shows that lay rationalism, as measured by the short scale, can predict a variety of consumer-relevant behaviors, including product preferences, savings decisions, and donation behaviors.

Shen, L., Fishbach, A. & Hsee, C. K. (2015). The motivating uncertainty effect: Uncertainty increases resource investment in the process of reward pursuit. <u>Journal of Consumer Research</u>, 41(5), 1301-1315.

Abstract: Can a reward of an uncertain magnitude be more motivating than a reward of a certain magnitude? This research documents the motivating-uncertainty effect and specifies when this effect occurs. People invest more effort, time, and money to qualify for an uncertain reward (e.g., a 50% chance at \$2 and a 50% chance at \$1) than a certain reward of a higher expected value (e.g., a 100% chance at \$2). This effect arises only when people focus on the process of pursuing a reward, but not when they focus on the outcome (the reward itself). When the focus is on the process of reward pursuit, uncertainty generates positive experience such as excitement and hence increases motivation. Four studies involving real rewards lend support to the motivating-uncertainty effect. This research carries theoretical implications for research on risk preference and motivation and practical implications for how to devise cost-efficient consumer incentive systems.

Hsee, C. K., Rottenstreich, Y. & Tang, J. (2014). Asymmetries between positives and negatives. Social and Personality Psychology Compass, 8(12), 699-707.

Abstract: How people react to negatives (what they dislike) is not always symmetric to how they react to positives (what they like). We propose a theoretical framework that links three potentially general types of positive-negative asymmetries: asymmetry in prediction errors (people err more when predicting others' attitudes about positives than about negatives), asymmetry in consensus (people agree more among themselves about negatives than about positives), and asymmetry in base rates (there are more negatives than positives). Our theory further explores a moderator for these asymmetries – importance of the stimulus to the self: greater importance engenders greater positive-

negative asymmetries. We provide empirical evidence for our theory and discuss the boundaries and implications of our propositions and findings.

Hsee, C. K., *Tu, Y., Lu, Y. & Ruan, B.* (2014). Approach aversion: Negative hedonic reactions towards approaching stimuli. <u>Journal of Personality and Social Psychology</u>, 106(5), 699-712.

Abstract: We live in a dynamic world, surrounded by moving stimuli – moving people, moving objects, and moving events. The current research proposes and finds an *approach aversion effect* –individuals feel less positively (or more negatively) about a stimulus if they perceive it to be approaching rather than receding or static. The effect appears general, occurring whether the stimulus is initially negative or non-negative and whether it moves in space (toward or away from "here"), in time (toward or away from "now"), or in probability (toward or away from "sure"). This research complements extensive existing research on perceived static distance of stimuli (near versus far) by exploring perceived dynamic movement of stimuli (approaching versus receding), showing that the effect of movement is distinct from the effect of distance.

Hsee, C. K., Zhang, J., *Lu*, *Y*. & Xu, F. (2013). Unit-asking: A method to boost donations and beyond. <u>Psychological Science</u>, 24(9), 1801-1808.

Abstract: The solicitation of charitable donations costs billions of dollars annually. Here, we introduce a virtually costless method for boosting charitable donations to a group of needy persons: merely asking donors to indicate a hypothetical amount for helping one of the needy persons before asking donors to decide how much to donate for all of the needy persons. We demonstrated, in both real fundraisers and scenario-based research, that this simple *unit-asking* method greatly increases donations for the group of needy persons. Different from phenomena such as the foot-in-the-door and identifiable-victim effects, the unit-asking effect arises because donors are initially scope insensitive and subsequently scope consistent. The method applies to both traditional paper-based fundraisers and increasingly popular Web-based fundraisers and has implications for domains other than fundraisers, such as auctions and budget proposals. Our research suggests that a subtle manipulation based on psychological science can generate a substantial effect in real life.

Hsee, C. K., Zhang, J., Wang, L. & *Zhang, L.* (2013). Magnitude, time and risk differ similarly between joint and single evaluations. Journal of Consumer Research, 40(1), 172-184.

Abstract: Arguably, all choice options involve three basic attributes: magnitude (outcome size), time (time of occurrence) and probability (likelihood of occurrence), and all evaluations of choice options occur in one of two evaluation modes: JE (joint evaluation, involving comparison of multiple options) and SE (single evaluation, without comparison). This research explores how reactions to the three attributes vary between the two evaluation modes. Nine studies, tapping diverse contexts, yield two general results: First, for all of these attributes, people are more sensitive to variations near

endpoints (zero magnitude, no delay, and 0% or 100% probability) than in other regions and this differential sensitivity is more pronounced in SE than in JE. Second, when faced with options involving a tradeoff between magnitude and time (delay) or between magnitude and probability (risk), people in SE are both more delay-averse and more risk-averse than people in JE.

Hsee, C. K., Rottenstreich, Y. & Stutzer, A. (2013). Suboptimal choices and the need for experienced individual well-being in economic analysis. <u>International Journal of Happiness and Development</u>, 1(1), 63-85.

Abstract: Standard economic analysis assumes that people make choices that maximize their utility. Yet both popular discourse and other fields assume that people sometimes fail to make optimal choices and thus adversely affect their own happiness. Most social sciences thus frequently describe some patterns of decision as suboptimal. We review evidence of suboptimal choices that arise for two reasons. First, people err in predicting the utility they may accrue from available choice options due to the evaluation mode. Second, people choose on the basis of salient rules that are unlikely to maximize utility. Our review is meant to highlight the possibility of a research program that combines economic analysis with measures of experienced individual well-being to improve people's happiness.

Dai, X. & Hsee, C. K. (2013). Wish versus worry: Ownership effects on motivated judgment. <u>Journal of Marketing Research</u>, 50(2), 207-215.

Abstract: How do consumers' needs and motivations influence their perceptions of external objects? For example, do hungry individuals perceive a cake to be larger or smaller than do satiated individuals? According to the new-look psychology literature, the answer is invariably "larger." However, we propose and demonstrate that the answer is more complex, depending on whether the object belongs to the perceiver. If the cake does not belong to the perceiver, she will perceive it to be larger if she is hungry than if she is satiated. But if the cake already belongs to her, she will perceive it to be smaller if she is hungry than if she is satiated. We propose a two-process (wishful-thinking versus worryful-thinking) hypothesis to explain the finding, and discuss its theoretical and marketing implications.

Hsee, C. K., Zhang, J., Cai, C. F. & *Zhang, S.* (2013). Overearning. <u>Psychological Science</u>, 24(6), 852-859.

Abstract: High productivity and high earning rates brought about by modern technologies make it possible for people to work less and enjoy more. Yet many continue to work assiduously to earn more. Do people over-earn—forgo leisure to work and earn beyond their needs? This question is understudied, partly because in real life, determining the right amount of earning and defining over-earning are difficult. In this research, we introduce a minimalistic paradigm that allows researchers to study over-earning in a

controlled laboratory setting. Using the paradigm, we found that individuals do over-earn, even at the cost of happiness, and over-earning is a result of mindless accumulation rather than reasons such as uncertainty about the future or enjoyment of work. Supporting the mindless-accumulation notion, we showed that prompting participants to consider the consequences of their earnings or denying them excessive earnings could disrupt mindless accumulation and enhance happiness.

Hsee, C. K., *Shen, L.*, Zhang, S., Chen, J. & Zhang, L. (2012). Fate or fight: Exploring the hedonic costs of competition. <u>Organizational Behavior and Human Decision Processes</u>, 119(2), 177-186.

Abstract: As a resource-allocation method, free competition is generally considered more efficient and fairer than binding assignment, yet individuals' hedonic experiences in these different resource-allocation conditions are largely ignored. Using a minimalistic experimental simulation procedure, we compared participants' hedonic experiences between a free-competition condition (in which participants could equally and freely compete for the superior resource) and a binding-assignment condition (in which the superior and inferior resources were unequally and irreversibly assigned to different participants). We found that individuals in the binding-assignment condition -- even the disadvantaged ones -- were happier than those in the free-competition condition. We attributed the effect to individuals' peace of mind, and supported the peace-of-mind notion by identifying two moderators: ease of social comparison and enjoyability of the inferior resource. In sum, this research highlighted the hedonic aspects of resource allocation methods and identified when accepting one's fate is hedonically better than fighting for the best.

Shen, L., Hsee, C. K., Wu, Q. & Tsai, C. I. (2012). Overpredicting and underprofiting in pricing decisions. <u>Journal of Behavioral Decision Making</u>, 25(5), 512-521.

Abstract: This research examines sellers' price-setting behavior and discovers a naturally occurring mismatch between sellers and buyers: Sellers who make a price decision often consider alternative prices and engage in the joint evaluation mode, whereas buyers who make a purchase decision see only the finally set price and are in the single evaluation mode. This mismatch in evaluation modes leads sellers to overpredict buyers' price sensitivity and underprice their products. However, these effects apply only to products unfamiliar to buyers and without salient reference prices and can be alleviated if sellers are encouraged to mimic single evaluation when making pricing decisions. These propositions are empirically tested and verified.

Yang, A. X., Hsee, C. K., Liu, Y. & Zhang, L. (2011). The supremacy of singular subjectivity: Improving consumer decisions by removing specifications and comparisons. <u>Journal of Consumer Psychology</u>, 21(4), 393-404.

Abstract: When making purchase decisions, consumers want objective product specifications and seek direct product comparison. The present research demonstrates

that consumers can make better decisions (i.e., choose what yields a better consumption experience) if objective specifications are removed and direct comparison is inhibited than if not, and this is true even if consumers cannot experience the target products themselves at the time of choice (such as in online shopping). The reason is that consumption is largely subjective and non-comparative, and decisions based on subjective and non-comparative information are often more compatible with consumption. In general discussion, we explore the boundary conditions of our findings and the implications of this research for a new way of marketing that emphasizes subjectivity over objectivity and non-comparison over comparison.

Yang, A. X., Hsee, C. K. & Zheng, X. (2011). The ABIS: A survey method to distinguish between absolute versus relative determinants of happiness. <u>Journal of Happiness Studies</u>, 13(4),729-744.

Abstract: This article introduces a simple survey method to distinguish between two types of variables that affect happiness – type A, which exerts an absolute effect on happiness, and type B, which affects happiness only through social context. The authors validate the method by comparing its findings with the findings of a theoretically superior but less practical experimental method, and use the method to identify the AB nature of a variety of naturally-occurring variables among both college students and people with work experience. We conclude by discussing the limitation of this method as well as its potential to inform policymakers about where to invest resources in order to improve people's happiness over time.

Shen, L., Hsee, C. K., Zhang, J. & Dai, X. (2011). The art and science of guessing. Emotion, 11(6),1462.

Abstract: This research examined how one affectively reacts to others' guesses at a value one cares about, such as one's income. Conventional wisdom suggests that people will feel happier upon receiving more favorable guesses (e.g., higher income) than less favorable guesses. We found the opposite pattern. We propose a model to explain the effect and identify its boundaries and report experimental evidence for the model. This research enriches existing literature on self-enhancement and yields practical implications for how to approach guessing in interpersonal communications.

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PAPERS UNDER REVIEW AND WORKING PAPERS (A Partial List):

An anomaly in debt repayment (with Sussman, A. & Zhang, S.)

Curiosity: An uncertainty-resolution account (with Ruan, B.)

A framing effect in strategic decisions (with Imax, A. & Li, X.)

A framing effect in the judgment of discrimination (with Li, X.)

A context-fit theory of consumer decision-making (with Li, X.)

Short-asking with long-entreating (SALE): A psychologically-based sales promotion strategy (with Lu, Z.)

Internecine behavior and loss spirals (with Imas, A., Li, X. & Zeng, Y.)

A systematic bias in a two-person resource pool-choice dilemma (with Li, X., Imas, A. & Zeng, Y.)