Web Supplement to Chapter 8

HEDONIC FRAMING

In Section 8.2 of Chapter 8, we discussed Kahneman and Tversky's asymmetric value function, which suggests specific ways that sellers, gift-givers, and others might frame their offerings to enhance their appeal. This Web supplement describes some of these methods.[1] Richard Thaler has identified four specific strategies of hedonic framing:

1. **Segregate gains.** Because the value function is concave in gains, a higher total value results when we decompose a large gain into two (or more) smaller ones. So Figure 8S-1 shows that a gain of 100 creates more total value if decomposed into two separate gains of 60 and 40. The moral here, as Thaler said, is "Don't wrap all the presents in a single box."

   Thaler tested the empirical validity of this recommendation by asking people which of the following two individuals they thought would be happier: *A*, who is given two lottery tickets, one of which wins $50, the other $25; or *B*, who is given one lottery ticket, which wins $75. Of the people he asked, 64 percent responded that *A* would be happier, 18 percent said *B*, and 17 percent thought the two would be equally happy. The rational choice model, of course, says that both would be equally happy.

2. **Combine losses.** The convexity of the value function in the loss domain implies that two separate losses will appear to be less painful if they are combined into a single, larger loss. As shown in Figure 8S-2, for example, separate losses of 20 and 30 have a combined value that is larger, in absolute terms, than the value of a loss of 50.

   To test this prediction about the efficacy of combining losses, a sample of subjects was asked who would feel worse: *A*, who gets one letter from the government saying he owes $150 in taxes; or *B*, who gets letters from two separate branches of government, one saying he owes $100, another saying he owes $50. (The subjects were also told that there would be no repercussions other than the additional tax payments themselves.) Here are their responses: 76 percent said that *B* would feel worse,

[1]The material in this Web supplement draws extensively on the arguments and evidence presented in R. Thaler, "Mental Accounting and Consumer Choice," *Marketing Science* 4, 1985.

FIGURE 8S-1

The Benefit of Segregating Gains
Because the value function is concave in gains, the total value of two small gains taken separately [$V(60) + V(40)$] is larger than the value of their sum [$V(100)$].

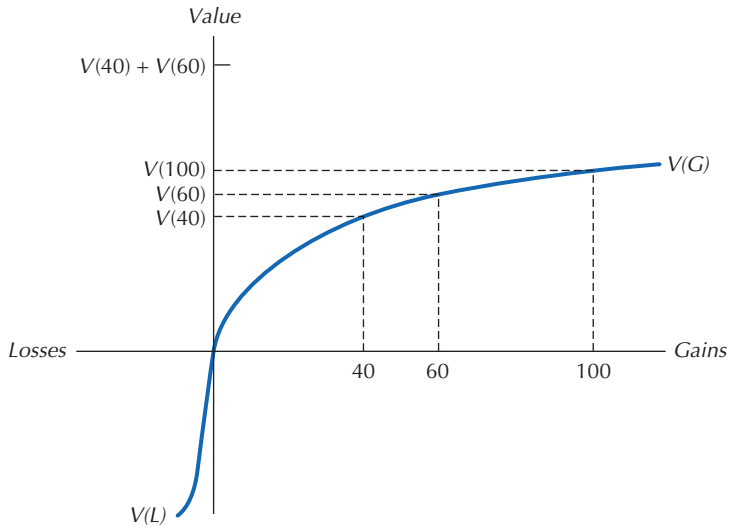
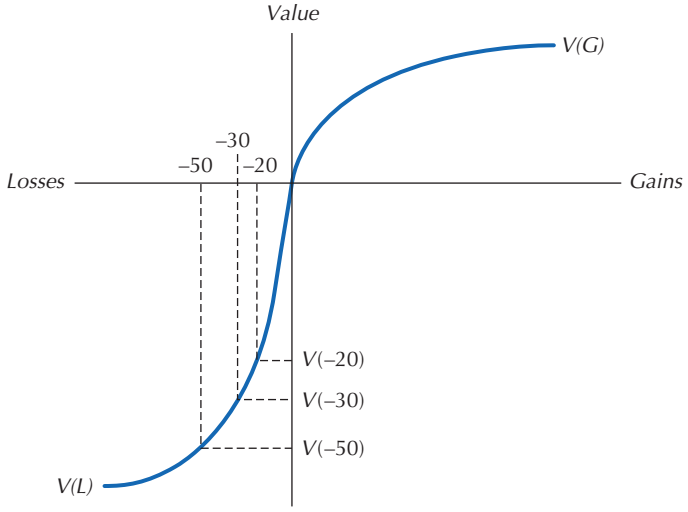


FIGURE 8S-2

The Benefit of Combining Losses
Because the value function is convex in losses, the effect of two losses taken separately [$V(-20) + V(-30)$] is more painful than the effect of their sum [$V(-50)$].



16 percent said *A*, and 8 percent said there would be no difference. Again, the rational choice model says that the two should feel the same.

Marketers seem to have discovered the principle that losses are less painful when combined than when taken separately. A $2000 Jacuzzi, for example, seems much cheaper when its price is added together with that of a $150,000 house than it does when it is evaluated in isolation. The $150,000 expense of the house already has the buyer so far out on the flattened part of the value function that an extra $2000 seems to cause very little additional injury.

3. **Offset a small loss with a larger gain.** The greater steepness of the value function in the loss domain can be avoided whenever a loss can be combined with a larger gain. So, evaluated separately, the effect of a gain of 250 and a loss of 200 is to produce a net value that is negative. As shown in Figure 8S-3, however, the effect of lumping the two together is clearly positive.

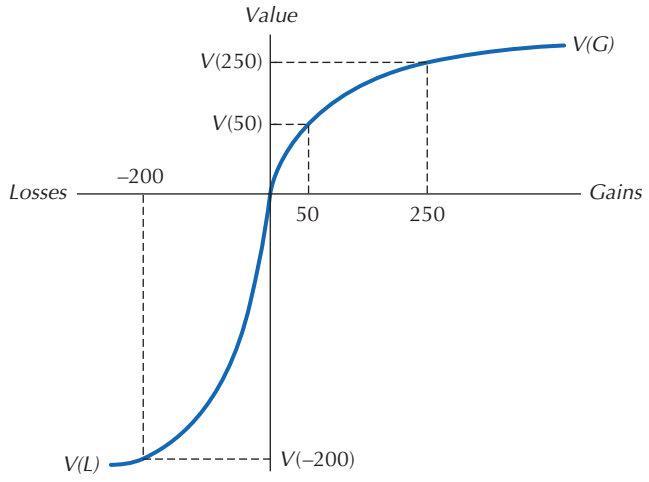
   An example helps to illustrate this point: A corporation makes available to its employees a new medical insurance plan. The old plan paid 100 percent of all covered medical expenses, and the premium was approximately $500 per year per family. The new plan has a $200 deductible feature—people must pay the first $200 in medical expenses each year, but once that threshold is reached, the insurance again pays 100 percent. The premium for the new plan is $250 per year, half that of the old plan. Employees have the option of staying with the old plan or switching to the new.

   Seen through the lens of the rational choice model, the new plan dominates the old. The $250 savings in premiums is more than enough to compensate for the $200 deductible feature. Families that incur less than $200 per year in medical expenses do even better under the new plan, but many employees are adamant in their wish to remain on the old plan. If some people code the $250 premium savings and the $200 extra in medical bills as separate events, the asymmetric value function predicts just such behaviour. As indicated in Figure 8S-3, the $200 loss weighs in more heavily than the $250 gain. The insurance company might have won much stronger acceptance for the plan if it had framed the decision in terms of the net effect, rather than as a separate loss and gain.

   To test your intuition about the advantage of offsetting a loss with a larger gain, ask yourself which person you think would be happier: *A*, who wins $100 in the lottery but the same day drops a bottle of ink and does $80 worth of damage (including the trouble and inconvenience of cleanup) to his living room rug, or *B*, who wins $20 in the lottery? Of a large sample of subjects who were asked this question, 70 percent responded *B*, 25 percent said *A*, and 5 percent thought the two would be equally

FIGURE 8S-3

The Benefit of Offsetting a Loss with a Larger Gain Because the value function is steeper in losses than in gains, the pain of a loss [*V*(−200)] will often exceed the pleasure of a slightly larger gain [*V*(250)]. The pain of such a loss can be avoided when it is possible to combine it with the larger gain to produce a positive net effect [*V*(50)].



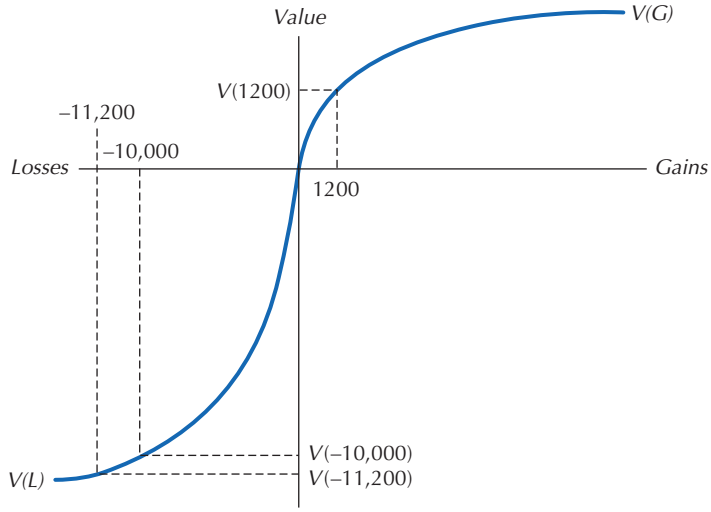
happy.[2] The rational choice model, which predicts the third outcome, is again in conflict with the majority view.

4. **Segregate small gains from large losses.** A sample of subjects were asked which of these individuals is more upset: *A*, whose car sustains $200 damage in the parking lot the same day he wins $25 in the office football pool, or *B*, whose car sustains $175 damage in the parking lot? Of those responding, 72 percent said *B* would be more upset, 22 percent picked *A*, and 6 percent said they would be equally upset. The rational choice model predicts they would be equally upset, because they suffer exactly the same reduction in their wealth. The Kahneman and Tversky value function, in contrast, predicts that B would be more upset, which corresponds with most people's responses.

   Thaler called the segregation of a small gain from a big loss the "silver-lining effect" and argued that it may help explain why so many merchants offer cash rebates on their products. ("Buy a new Ford before October 1st and get $1200 cash back!") Viewed in the context of the rational choice model, this practice seems to be dominated by the simple alternative of reducing the price of the product. The reason is that the buyer must pay sales tax on the whole price of the item, including any amount he gets back as a rebate. Considering the Goods and Services Tax (GST) alone, a $1200 price reduction at 5 percent is worth $60 more to the consumer than a $1200 rebate. And yet the practice persists. If it leads people to consider the price of the product as a loss and the rebate as a gain (see Figure 8S-4), the value function approach makes clear why it might be so effective.

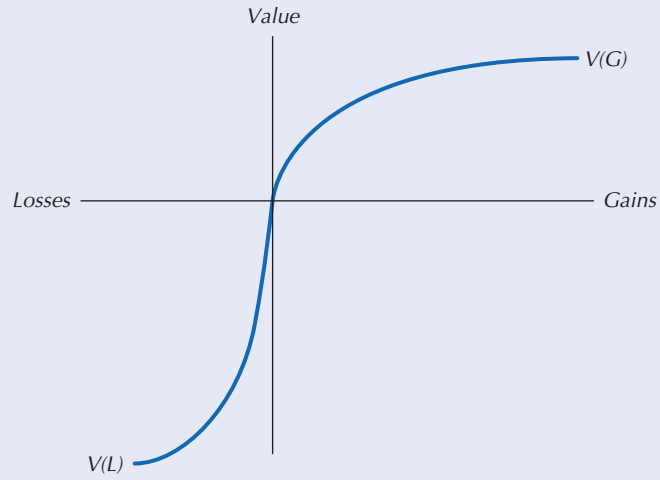
FIGURE 8S-4

The Silver-Lining Effect and Cash Rebates
If a cash rebate is considered to be a separate gain [*V*(1200)], and the price of the product as a loss [*V*(−11,200)], then the total effect [*V*(1200)] + [*V*(−11,200)] is less painful than when the product is offered at a lower price *V*(−10,000)].



[2]R. Thaler, op. cit., 1985.

8S1. Suppose your happiness is given by a Kahneman–Tversky value function like the one shown in the following diagram.



You have decided to apply the principles of hedonic framing to put the most favourable spin on the various combinations of events that occur in your life. How should you then frame the following combinations of events?

a. A gain of $500 and a loss of $50.

b. A gain of $50 and a loss of $500.

c. A gain of $500 and a gain of $600.

d. A loss of $500 and a loss of $600.

8S2. The Bay has hired you as a consultant to give it marketing advice about how to sell its deluxe home entertainment system. On the basis of the material covered in Chapter 8 and this supplement, suggest two specific marketing strategies for The Bay to consider.

8S3. Give two examples of how the framing of alternatives tends to produce systematic effects on people's choices.