The French Paradox Redux: Internal and External Cues of Meal Cessation

Brian Wansink, Cornell University
Collin Payne, Cornell University
Pierre Chandon, University of Pennsylvania
Paul Rozin, University of Pennsylvania

ABSTRACT Why do the French eat foods that have relatively higher fat content, yet have lower rates of cardiovascular disease and have lower body mass indices than Americans? One answer may be found in the different meal cessation emphases between the two cultures. Americans, in contrast to the French, reported being influenced more by external cues than internal cues of meal cessation. External cues of meal cessation, such as finishing eating when a television show is over, may lead to mindless eating. The French may be a model for “mindful eating,” which may lead to a more healthful relationship with food.

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the effectiveness of caffeine in improving cognitive performance when faced with motor fatigue. Researchers found that caffeine improved cognitive performance resulting in fewer errors during a motor task. However, these studies did not examine decision making in cognitively demanding scenarios that consumers often face over prolonged cognitive effort resulting in cognitive overload. There may also be more effective means for improvement than chemical arousal (which may have decreased effectiveness over longer periods of time).

Here, we explore the effectiveness of other strategies: decreasing arousal (relaxation or sleep), increasing mental arousal (listening to music, playing an involved video game), increasing arousal through physical activity, distracting oneself from the task, interacting with people (talking on the phone or to someone), or as a control merely continuing the task until completion or failure. The perceived and actual effectiveness of cognitive overload cures has important implications for how and when consumers will use different strategies to cope with difficulty in decision-making situations.

One hundred and twenty participants participated in a preliminary study focused on gaining initial insight into the ways that consumers experience and attempt to remedy cognitive overload. Participants were first asked to describe a situation in which they felt “mentally tired,” and subsequently, provided a description of the measures they took to relieve their tiredness. After describing their remedy strategies, consumers reported the degree to which they felt their strategy was effective, and how cognitively tired they remember feeling after undertaking this measure.

Overload cures were coded as either:

1. Decreasing Arousal
2. Increasing Arousal—mental
3. Increasing Arousal—physical
4. Distraction from the task
5. Social Interaction
6. No cure used, attempted to keep working.

The most common cognitive relief strategy reported by participants involved the use of artificially induced physical arousal—caffeine—in order to recover from their cognitive overload. Interestingly, although such strategy was most widely used, it was not reported to be the most effective: A significant effect for cure type ($F=3.478, p<.006$) revealed that instead, “Social Interaction” ($M=7.286, SD=.745$) and “Distraction” ($M=6.769, SD=0.547$) were perceived as significantly more efficacious as compared to the control of “No change” ($M=4.091, SD=.594$), ($M=3.195, p<.001$ and $M=2.678, p<.001$ respectively). The most common reported strategy, physical arousal through the use of caffeine or other chemical stimulants, did not differ significantly from the reported effectiveness of doing nothing to alleviate cognitive fatigue.

These preliminary results indicate that consumers may be misguided in their choice of recovery strategies. Although they routinely choose increased physical arousal (especially through using chemical stimulants such as caffeine and nicotine) as a means to get a cognitive “boost”, this strategy seems to be less effective than mere social interaction. As a result, consumers may make poor judgments and actually decrease their cognitive ability in the long run, even if they experience a short enhancement (van Duinen, 2005).

Based on these results, Study 1 will be conducted in order to further explore the efficacy of strategies cited by consumers as means of recovery from cognitive overload. We will increase cognitive load by asking participants to conduct a series of ordinary cognitive tasks, such as price-related calculations. These tasks will include objective timing and performance measures, so that pre-remedy performance can be measured. Participants will then either increase cognitive arousal by listening to fast-paced music, decrease cognitive arousal by listening to slow music, send an email on an unrelated subject (social interaction), eat a piece of chocolate candy (to increase physiological arousal), or simply continue working on calculations. After their remedy activity, participants will resume another objectively measured cognitive task. Finally, they will rate their own feelings of cognitive tiredness and subjective sense of the efficacy of their remedy activity. Analysis will focus on performance patterns subsequent to the remedy activity, particularly as compared to participants’ subjective sense of cognitive repair. Results from this study will be available for discussion at ACR 2006.

References

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Brian Wansink, Cornell University, USA
Collin R. Payne, Cornell University, USA
Pierre Chandon, University of Pennsylvania, USA
Paul Rozin, University of Pennsylvania, USA

Extended Abstract
A person who uses internal cues (such as hunger, satiation, or taste) to determine when to stop eating may be more effective in ultimately eating less than one who relies on external cues (such as portion sizes, social norms, or when an accompanying beverage or activity is over).
A demographically-matched sample of 134 Parisian and 148 Chicagoan students completed a brief survey on meal cessation, which asked the extend to which they agreed with three statements associated with internal cessation cues and three statements with external cessation cues. Their answers to these were compared across countries, genders, and BMI-levels.

While the French indicated they were more likely to be influenced by internal cues of meal cessation than Americans (P<.001), Americans indicated they were more likely to be influenced by external cues of meal cessation (P<.001). In summary, compared to their counterparts, French people (P<.001), females (P<.05), and normal weight individuals (P<.01) were more influenced by internal cues of meal cessation than external cues.

This study shows that one correlate with obesity may be the extent to which people rely on external cues to determine when they will stop eating a meal. While there are a number of possibilities of why those in some countries have less of an obesity problem than the United States, these results suggest one contributing explanation would be they are more likely to use internal cues, versus external cues to know when to stop eating.

References

Exercise Behavior in Loyalty Program: The Influence of Regulatory Focus
Ahmad Daryanto, Maastricht University, the Netherlands
Ko de Ruyter, Maastricht University, the Netherlands
Martin Wetzels, Maastricht University, the Netherlands
Paul G. Patterson, University of New South Wales, Sidney, Australia

Abstract
Our study examines the influence of regulatory focus (RF) on reward preferences in a customer loyalty program. Specifically, we aim to contribute to the emerging literature on RF by addressing five issues. First, we simultaneously investigate RF as a state and a customer trait. Second, we address the interaction between type of rewards and message framing. Third, we test whether the influence of the RF trait on consumer loyalty is mediated by exercise motivation. Fourth, we examine whether the transfer of regulatory fit effect is embedded in multiple interrelated constructs that make up a customer’s evaluative judgment. Finally, we investigate the impact of simultaneously presenting promotion and prevention rewards on customer loyalty.

Overview of the Research
In many retail contexts, loyalty programs are employed to attract new and retain existing customers. This form of customer relationship management is also enjoying widespread popularity in health club services (e.g. http://www.fitrewardsclub.com). Many gyms have adopted loyalty programs (similar to frequent flyer programs in the airline industry). We investigate the influence of regulatory focus (RF) on reward preferences in a health club member loyalty program.

RF posits that there are two types of foci; (1) a promotion focus which aims at achieving positive outcomes and guides an individual to use an eagerness strategy and (2) a prevention focus aimed at avoiding negative outcomes, instigating individuals to use a vigilant strategy (Higgins, 1997). In prior research on RF, these foci are either framed as situational states or personal traits (e.g., Lee & Aaker, 2004). However, as reward preferences of health club members may be determined by both situational and individual differences, it is both theoretically and managerially relevant to understand the relative contributions of situational and dispositional foci by analyzing them simultaneously rather than independently (Kammrath et.al, 2005).

In addition, regulatory focus fit has recently been advanced to explain the match between a person’s goals and the way to pursue these goals (Avnet & Higgins, 2006). The fit between regulatory focus and the manner in which goals are pursued influences customer beliefs about the appropriateness of their (re)actions. It has been argued that the ‘feel right’ factor, in turn, enhances motivational intensity in goal pursuit (Avnet & Higgins, 2006).

We address the interaction between types of reward and message framing, advocating an action to pursue loyalty program credit points. The type of reward is presented to health club members as a means to induce their state RF. Two types of goal exercise-related rewards are used: approach reward (which aims at improving their health) and avoidance reward (which aims at helping them to maintain good health). Thus, the messages are framed as either eagerness (using a gain frame) or vigilance (using a loss frame). In the gain frame, respondents are informed about the benefits of recommended future exercise. In contrast, in the loss frame, health club members are informed about the consequences of not exercising frequently enough. Consistent with RF theory, we expect that a fit effect occurs between the approach reward and gain frame as well as the avoidance reward and loss frame. Furthermore, this fit effect is predicted to be embedded in multiple interrelated constructs that form a customer’s evaluative judgment of loyalty.