

# Promotion Reactance: The Role of Effort-Reward Congruity

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Incentives may simultaneously entice consumers and arouse reactance. It is proposed that consumers reaffirm their autonomy by choosing rewards that are congruent with the promoted consumption effort (choosing reward  $x$  over reward  $y$ , given effort  $x$ ). Such congruity allows consumers to construe their behavior as intrinsically motivated rather than externally induced, because the effort is its own reward. Supporting this conceptualization, the results indicate that preferences for effort-congruent rewards are attenuated among consumers with lower psychological reactance, after a reactance-reduction manipulation, when rewards are independent of personal effort, and when rewards are a by-product rather than the intention of effort.

Marketing promotions and incentives can be a double-edged sword. On the one hand, as prior research and common wisdom suggest, consumers are enticed by the proffered benefits and rewards. On the other hand, this article assumes that consumers may perceive the incentives as intended to influence their consumption behavior and limit their brand choice. Such threats to consumers' perceived freedom arouse promotion reactance.

However, building on a synthesis of reactance theory (Brehm 1966) and research on intrinsic motivation (Lepper 1981), it is proposed that consumers may proactively protect their sense of individual agency and freedom by choosing rewards that are congruent with the required consumption effort (e.g., choosing reward  $R_x$  over reward  $R_y$  when expending effort  $E_x$  and vice versa when expending effort  $E_y$ ). Selecting effort-congruent rewards can reduce promotion reactance by enabling consumers to perceive themselves as engaging in the effort activity for its own sake and not in order to attain some extrinsic goal. In contrast, choosing rewards that are incongruent with (i.e., unrelated to) the required effort emphasizes an external attribution for one's

behavior (e.g., "I do  $x$  in order to earn  $y$ ") and, hence, cannot reduce promotion reactance.

In addition to reactance reduction, a preference for effort-reward congruity might have other possible explanations. First, consumers may prefer rewards that are classified in the same mental account as the required effort activity or sponsor of the reward (O'Curry 1999; Thaler 1985). Second, the required effort activity may prime (i.e., increase the cognitive accessibility of) congruent rewards (e.g., Herr 1989). Third, consumers may infer their tastes from the effort activity, such that they presume that they want or need the required consumption activity and, therefore, choose a similar or identical reward. These alternative accounts, as well as the reactance-based explanation, are examined in a series of five studies.

Study 1 demonstrates a robust preference for effort-reward congruity. Study 2 shows that the preference for effort-reward congruity is stronger among consumers who experience greater psychological reactance. Study 3 employs a manipulation (rather than measurement) of reactance and demonstrates that the congruity preference can be attenuated and even reversed when consumers read (i.e., before making reward choices) supposedly scientific information, in actuality intended to reduce promotion reactance. Study 4 demonstrates that consumers prefer rewards that are congruent with their source or sponsor (e.g., free groceries from a grocery store) only when the rewards require investing effort; the preference for congruent rewards is attenuated when identical rewards are obtained from the same sponsor without any personal effort commitment. Study 5 employs a field experiment using real choices in an actual café loyalty program. The results indicate that customers are significantly more likely to redeem a congruent reward when they explicitly contract to invest effort in order to earn

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a reward than when the (same) effort is incidental to reward attainment. As explained subsequently, the findings are consistent with the reactance-based account but not with the alternative explanations. The final section integrates the findings and discusses their implications.

## PROMOTION REACTANCE: CONCEPTUAL FRAMEWORK

Despite the voluminous research on promotions, the notion that they can generate reactance has not been investigated. Further, a critical question is what determines the strength of such reactance and the way consumers cope with it. To address this question, the classic theory of psychological reactance is briefly reviewed, and the idea of promotion reactance is advanced. Building on a synthesis of reactance theory with the overjustification hypothesis (Lepper 1981), it is then proposed that consumers attempt to mitigate their promotion reactance by choosing incentives that are congruent with (i.e., intrinsic to) the promoted consumption or effort activity.

### The Theory of Psychological Reactance

The theory of psychological reactance states that people react against attempts to control their behavior and threats to their freedom of choice (Brehm 1966). The arousal of such reactance creates a motivation to reassert the threatened freedom. For example, if individuals think they are free to engage in behaviors *x*, *y*, or *z*, then threatening their freedom to engage in *x* would create psychological reactance; this reactance could then be reduced by an increase in the perceived attractiveness of, and likelihood of engaging in, the threatened behavior *x*.

Past research has demonstrated a variety of reactance effects, including acting counter to persuasion attempts (e.g., Brehm and Sensenig 1966), refusing to return an (obligating) favor (Brehm and Cole 1966), and desiring the unattainable (e.g., Brehm et al. 1966). Reactance has also been suggested as an important psychological construct in consumer behavior (Clee and Wicklund 1980), although empirical studies have been scarce. Among these have been demonstrations of reactance to product unavailability (Fitzsimons 2000), taxation (Wicklund 1970), and unsolicited recommendations (Fitzsimons and Lehmann 2003). As discussed next, the present research proposes that reactance can also be induced by marketing promotions and incentives.

### Promotion Reactance

Previous research indicates the existence of promotion reactance. For example, Robertson and Rossiter (1974) showed that the perceived influence intent of TV commercials correlated with lower belief in, and liking of, the commercial and lower desire for the advertised product. Apparently, advertisements that were perceived as intended to induce the purchase of a product aroused reactance and consequently yielded less influence.

The present research suggests that psychological reactance to marketing promotions and incentives is a ubiquitous phenomenon, particularly potent when the influence intent of such promotions is salient. The assumption that many consumers are sensitive to the influence intent of promotions and rewards is consistent with Friestad and Wright's (1994) persuasion knowledge model and the notion of a schemer schema (Wright 1985).

A question that naturally arises is what types of promotions are especially likely to generate consumer reactance. Prior research suggests that a threat that carries implications for future freedoms leads to greater reactance than does a simple, isolated threat (Andreoli, Worchel, and Folger 1974). One type of promotion that can threaten a series of future freedoms is loyalty (or frequency) programs. Customers participating in such loyalty programs (hereafter, LPs) are offered a reward in return for investing a stream of future efforts (e.g., purchasing products and services, rating products, or completing surveys; see Kivetz and Simonson 2003 for a definition of "LP effort"). Thus, because LPs seek to influence ongoing behavior, they are especially likely to arouse consumer reactance. Next, building on research on attribution and the overjustification hypothesis, it is proposed that consumers may reduce their reactance to LPs by choosing rewards that reinforce their intrinsic motivation to invest the required effort.

### Reward Choices as a Mechanism for Reactance Reduction

In analyzing how consumers cope with reactance to LPs and other promotions, it is helpful to consider the literature on overjustification. This stream of research has demonstrated that people's intrinsic motivation to engage in an activity may be undermined by inducing them to engage in that activity as a means to some extrinsic reward (Deci and Ryan 1985; Lepper 1981). For instance, in a classic experiment with children, Lepper et al. (1982) showed that presenting one activity as a means for earning the opportunity to engage in a second activity (e.g., drawing with magic markers to earn a chance to draw with crayons or vice versa) decreased subsequent intrinsic motivation to engage in the activity presented as the means. Similarly, merely informing subjects that they will have to eat "hupe" in order to be able to eat "hule" (both were hypothetical foods) led them to infer that the former (the means) is less tasty than the latter (the reward).

The psychological mechanism underlying overjustification is based on the notion that, when an external reinforcement is made salient as a plausible explanation for a particular behavior, people attribute their behavior to this controlling contingency instead of to their intrinsic motivation. A similar account has been employed to explain the negative effect of price deals on subsequent brand loyalty (Dodson, Tybout, and Sternthal 1978).

The present research proposes that—by choosing particular types of rewards—consumers can construct attributions that alleviate perceptions of external influence. In particular,

consumers can reduce promotion reactance by choosing effort-congruent rewards, that is, rewards that are similar to or in the same currency as the required effort or consumption activity. Such rewards allow consumers to infer that they are engaging in the effort activity for its own sake (and not due to an extrinsic incentive), because the effort is literally its own reward. More specifically, effort-congruent rewards reinforce the intrinsic motivation to engage in the required effort and allow consumers to construe their consumption behavior as reflecting their own individual tastes and preferences. Such rewards promote the attribution that one would invest the effort even without the promotional reward and, therefore, that one's behavior is not influenced by the reward.

In contrast, choosing rewards that are incongruent with (i.e., unrelated to) the required effort emphasizes an external attribution for one's behavior ("I do  $x$  in order to earn  $y$ "). Such rewards offer a salient extrinsic motivation for investing effort, and hence threaten the consumer's sense of freedom and personal choice. Further, consumers may reasonably assume that effort-incongruent rewards could induce people to engage in a consumption pattern (effort) that they would not normally exhibit.

In summary, it is argued that promotions and rewards can generate reactance due to their threat to consumer freedom and self-determination (e.g., "Am I frequently consuming  $x$  because I like  $x$  or because I am enticed by a reward?"). Consumers could directly restore their threatened freedom by simply rejecting the promotion (e.g., not participating in the LP), but only at the cost of forgoing the promotional benefits. An alternative and more subtle strategy to reaffirm the threatened freedom is to choose programs and rewards that allow consumers to effectively deny the threat through a favorable causal attribution. In particular, effort-congruent (as opposed to incongruent) rewards facilitate an attribution that one is engaging in the effort due to one's individual tastes and free will. It is important to note that consumers may choose effort-congruent rewards to reduce promotion reactance and reinforce intrinsic motivation without being aware of their underlying motivation (Nisbett and Wilson 1977).

The discussion leads to the following hypothesis:

**H1:** Consumers will prefer rewards that are congruent rather than incongruent with the required consumption effort.

Next, a study that tests hypothesis 1 is reported, followed by four studies that examine the three alternative accounts and the proposed reactance-reduction explanation.

## STUDY 1: TESTS OF THE PREFERENCE FOR EFFORT-REWARD CONGRUITY

A series of separate tests was conducted to test hypothesis 1, which states that consumers will prefer effort-congruent

rewards, that is, rewards that are similar to or in the same currency as the required effort or consumption activity. In order to ensure that any observed preference for effort-congruent rewards is not due to idiosyncratic characteristics of the rewards (e.g., an especially [un]attractive [in]congruent reward), the required effort activity was always counterbalanced (between subjects) in the various tests of hypothesis 1.

## Method

The participants in the study were travelers who were waiting either for flights at domestic terminals in a major airport or for trains at sitting areas in a major train station. They were between 18 and 80 yr. old and represented a wide range of demographic characteristics. The number of respondents in each separate test of hypothesis 1 ranged between 70 and 197. In each test, respondents were randomly assigned to one of two effort requirements (either  $E_x$  or  $E_y$ ) and were asked to choose between two possible rewards ( $R_x$  and  $R_y$ ). For example, in one test (which elicited reward choices with real potential consequences), participants were informed that a group of MBA students were launching a new Internet site that would offer a frequent reviewer program. Participants were asked to complete a questionnaire that was described as part of an effort to determine the best reward for the program. They faced an effort requirement of reviewing either 30 songs or 30 movies (manipulated between subjects) and were asked to choose as their reward between three music CDs and three movie DVDs. In a second problem, respondents were randomly assigned to either a gasoline station LP or a grocery store LP; in both cases, consumers were required to make 12 purchases (of either gasoline or groceries, respectively) in order to earn a choice between a Rand McNally road atlas and a recipe book of Californian cooking (both rewards were described in detail and included color photographs).

Respondents made only one reward choice, which was mixed with other filler problems from unrelated studies. In total, hypothesis 1 was tested in 10 problems in which the congruent reward was identical to the required effort and five problems in which the congruent reward was similar or related (but not identical) to the required effort. The two problems described earlier are ones in which the congruent reward was related to the required effort. An example of a problem in which the congruent reward was identical to the consumption effort is the cafeteria LP, which required making six purchases of either a sandwich or a smoothie drink (manipulated between subjects) and offered as a reward a choice of a free sandwich or a free smoothie drink. A variety of effort and reward activities were used. In addition, following the recommendation of Dhar and Simonson (2003), in some problems respondents had the option of not participating in the program (the inclusion of this option did not affect the preference for effort-reward congruity and is not discussed further).

## Results and Discussion

Let  $P(R_x; R_y | E_x)$  be the proportion of consumers who chose reward  $x$  over reward  $y$  when the required effort was  $E_x$  (i.e., the share of  $R_x$  relative to  $R_y$  given  $E_x$ ). Next, let

$$\Delta P(R_x; R_y) = P(R_x; R_y | E_x) - P(R_x; R_y | E_y).$$

Thus,  $\Delta P(R_x; R_y)$  measures the degree to which changing the required effort from  $E_x$  to  $E_y$  affects the relative preference for reward  $x$  over reward  $y$ . In particular,  $\Delta P(R_x; R_y) > 0$  if the replacement of effort  $x$  with effort  $y$  decreases the preference for reward  $x$ , and  $\Delta P(R_x; R_y) < 0$  if this change enhances the preference for reward  $x$ . To test hypothesis 1, we examine whether  $\Delta P(R_x; R_y)$  is significantly greater than zero. In contrast, the null hypothesis is  $\Delta P(R_x; R_y) \leq 0$ .

Consistent with hypothesis 1, in all 15 problems testing the preference for effort-reward congruity, the value of  $\Delta P(R_x; R_y)$  was significantly greater than zero (all  $p$ 's  $< .05$ ). Across the 15 problems, the average value of  $\Delta P(R_x; R_y)$  was 28% (median = 20%). For example, in the frequent reviewer program, the share of the music CDs reward relative to the movie DVDs reward was 56% (22 out of 39 respondents) when the program required reviewing 30 songs, compared with 19% (8 out of 41 respondents) when the same program required reviewing 30 movies ( $\Delta P(R_x; R_y) = 37\%$ ;  $p < .001$ ). In the gasoline station versus grocery store problem, the share of the road atlas reward relative to the recipe book reward was 60% (32 of 53) when consumers were required to make 12 gasoline purchases, compared with 44% (23 of 52) when they were required to make 12 grocery purchases ( $\Delta P(R_x; R_y) = 16\%$ ;  $p < .05$ ).

In summary, the results of study 1 indicate that consumers reverse their preference between rewards as function of the required consumption effort. In particular, consumers have a strong preference for earning effort-congruent as opposed to effort-incongruent rewards. This preference was further demonstrated in several studies, including (a) two longitudinal tests that employed a within-subjects manipulation of the required effort, (b) four tests that demonstrated that the preference for effort-reward congruity extends beyond reward choices to situations in which consumers decide whether to join individual LPs (Nowlis and Simonson 1997), and (c) a study in which respondents considered one of two effort requirements and proposed their own reward (more information about these studies can be obtained upon request).

### STUDY 2: THE EFFECT OF INDIVIDUAL DIFFERENCES IN PSYCHOLOGICAL REACTANCE

Although the observed preference for effort-congruent rewards is consistent with the idea of promotion reactance, it does not test directly the proposed theoretical explanation and the rival accounts outlined above. Specifically, it was

argued that the preference for effort-reward congruity reflects consumers' attempt to reduce the reactance aroused by external inducements. This explanation implies that consumers who are more predisposed to experiencing psychological reactance should be particularly sensitive to the correspondence between effort and reward. That is, it is predicted that the preference for effort-reward congruity will be more pronounced for those who experience higher levels of psychological reactance.

**H2:** The preference for effort-reward congruity will be stronger for consumers with a higher tendency to experience psychological reactance (than for consumers with a lower tendency to experience psychological reactance).

Next, hypothesis 2 is examined using the (refined) Hong psychological reactance scale, which measures the tendency of individuals to experience psychological reactance (Hong and Faedda 1996). This individual difference scale has been shown to have convergent and discriminant validity and consists of 11 items that are measured on a five-point Likert-type scale (e.g., "I resist the attempts of others to influence me"; "I become angry when my freedom of choice is restricted").

## Method

Eighty-one respondents (train station travelers) received a questionnaire that contained two problems testing hypothesis 2; one problem involved a frequent online shopper program, and the other a grocery store versus gasoline station LP. In each problem, respondents were randomly assigned to one of two effort requirements and were asked to choose between two possible rewards. Specifically, in the frequent online shopper problem, respondents were asked to consider a frequent online shopper program offered by a major Internet retailer that sells a very wide selection of books and music CDs. They faced an effort requirement of making 10 purchases of either a book or a music CD (manipulated between subjects) and were asked to choose as their reward between a free book and a free music CD. In the second problem, respondents were randomly assigned to either a grocery store or a gasoline station LP, with the required effort being 10 purchases of either groceries or gasoline, respectively. The reward was \$10 of credit toward future purchases of either groceries or gasoline (at either a local grocery store or a local gasoline station, respectively). After making reward choices in the two problems, respondents completed three pages with filler problems from unrelated studies. Then, at the end of the questionnaire, they were asked to complete the 11-item (refined) version of the Hong psychological reactance scale (Hong and Faedda 1996).

## Results and Discussion

Respondents were divided into two groups, high reactance and low reactance, based on a median split of average

item scores (means and standard deviations of reactance ratings in the high versus low reactance groups were 3.4 [SD = .31] vs. 2.4 [SD = .33], respectively). In the online shopper program, respondents in the high reactance group exhibited a substantial effort-reward congruity preference, with  $\Delta P(R_x; R_y) = 67\%$  ( $n = 43$ ;  $t = 5.9$ ;  $p < .001$ ). In contrast, respondents in the low reactance group exhibited a weaker effort-reward congruity preference, with  $\Delta P(R_x; R_y) = 24\%$  ( $n = 38$ ;  $t = 1.5$ ;  $p < .1$ ). The difference in the observed congruity effects between the high and low reactance groups is statistically significant ( $t = 2.2$ ;  $p < .05$ ) and consistent with hypothesis 2.

Similarly, in the grocery store versus gasoline station problem, high reactance respondents exhibited a congruity preference of  $\Delta P(R_x; R_y) = 81\%$  ( $n = 43$ ;  $t = 9.0$ ;  $p < .001$ ), whereas low reactance respondents exhibited a weaker congruity preference of  $\Delta P(R_x; R_y) = 58\%$  ( $n = 38$ ;  $t = 4.3$ ;  $p < .001$ ). This marginally significant difference ( $t = 1.4$ ;  $p < .08$ ) supports hypothesis 2. It is important to note that, for expositional ease, the tests of hypothesis 2 employed a median split of the psychological reactance scores. Similar results were obtained when the continuous measure of psychological reactance was used in a logistic regression analysis.

In summary, the present study supports the hypothesis that consumers who experience higher psychological reactance exhibit a greater preference for effort-reward congruity. This result was replicated in a study in which respondents were randomly assigned to one of two effort requirements and were asked to propose one item that they would like to earn as a reward. Consistent with hypothesis 2, high reactance respondents were significantly more likely to self-generate rewards that were congruent with the required effort. Thus, the findings from several experiments provide strong support for the proposition that an attempt to reduce promotion reactance motivates the preference for effort-reward congruity. Further, these findings cannot be explained by the mental accounting, priming, or taste-inference rival accounts.

### STUDY 3: THE EFFECT OF REDUCING PROMOTION REACTANCE

The previous study measured participants' preexisting tendency to experience psychological reactance. A limitation of this approach is that unobservable differences between high and low reactance individuals might underlie variations in reward preferences. Accordingly, the present study employs a manipulation intended to lower promotion reactance, and the preference for effort-reward congruity is compared between consumers assigned to this manipulation and those assigned to a control condition. If choosing effort-congruent rewards reflects an attempt to reduce promotion reactance, then respondents assigned to the low promotion reactance manipulation should exhibit a weaker congruity preference. Thus,

**H3:** Reducing promotion reactance before consumers

choose rewards will attenuate the preference for effort-reward congruity.

### Method

The participants in the study were travelers who were waiting for trains at sitting areas in a major train station. A series of six separate tests was conducted to test hypothesis 3. In each test, participants were randomly assigned to one of four conditions in a 2 (promotion reactance: reduced vs. control)  $\times$  2 (effort requirement:  $E_x$  vs.  $E_y$ ) between-subjects design. In all conditions, respondents first read an introduction explaining the general concept of loyalty programs, using the example of frequent flyer programs. In the reduced promotion reactance conditions, respondents were then asked to review information that was (supposedly) obtained from previous studies with over 5,000 consumers. Respondents were told that this information was being divulged to help them make more informed decisions. The information summarized the "major beliefs that people hold about loyalty programs and rewards," which (unbeknownst to the participants) were specifically designed to reduce reactance to incentives and minimize perceptions of external influence. More specifically, these "prevalent consumer beliefs" stated that "rewards reinforce people's natural behavior and tendencies," "loyalty programs offer a reward for something you would do anyway," and "the rewards offered in such programs are bonuses."

After reading the introduction (and the additional information in the reduced reactance conditions), respondents considered one of six programs, in which they were randomly assigned to an effort requirement (either  $E_x$  or  $E_y$ ) and chose between two possible rewards ( $R_x$  and  $R_y$ ). The effort requirements, rewards, and number of respondents in each test are shown in table 1. To check for demand effects, at the end of each questionnaire respondents were asked to indicate what they thought was the purpose of the study. None of the respondents expressed suspicion that the "information from previous studies" was intended to influence their reward choices, and none articulated the hypothesis being tested. Finally, participants were debriefed and thanked.

### Results and Discussion

As shown in table 1, in all six problems testing hypothesis 3, the preference for effort-reward congruity was greater in the control than in the reduced promotion reactance conditions (this difference was significant in three problems and marginally significant in two others). Across the six problems, the average value of  $\Delta P(R_x; R_y)$  was 31% in the control conditions, compared with -1% in the reduced reactance conditions. The negative congruity effects observed in several of the problems can be interpreted as a form of variety seeking (e.g., Simonson 1990), which emerges once consumers are liberated from the need to alleviate promotion reactance.

Overall, the results of this study support the notion that

TABLE 1

PREFERENCE FOR EFFORT-REWARD CONGRUITY IN CONTROL VERSUS REACTANCE-REDUCTION CONDITIONS (STUDY 3)

Problem	Required effort	Reward options	Effort-reward congruity preference $\Delta P(R_x; R_y)$ (%)		
			Control condition	Reactance-reduction manipulation	Difference
1 ( $n = 91$ )	$E_x \equiv$ stay 10 nights $E_y \equiv$ rent 10 cars	$R_x \equiv$ two night stays $R_y \equiv$ six car rental days	23 <sup>a</sup>	-10	+33 <sup>d</sup>
2 ( $n = 70$ )	$E_x \equiv$ review 30 songs $E_y \equiv$ review 30 movies	$R_x \equiv$ three music CDs $R_y \equiv$ three movie DVDs	42 <sup>b</sup>	9	+33 <sup>f</sup>
3 ( $n = 84$ )	$E_x \equiv$ buy gas 5 times $E_y \equiv$ buy groceries 5 times	$R_x \equiv$ compact road atlas $R_y \equiv$ cooking recipe book	35 <sup>a</sup>	-24 <sup>c</sup>	+59 <sup>e</sup>
4 ( $n = 209$ )	$E_x \equiv$ eat 10 boxes of cereal $E_y \equiv$ fly 5,000 mi.	$R_x \equiv$ three cereal boxes $R_y \equiv$ 500 frequent flyer miles	34 <sup>b</sup>	18 <sup>a</sup>	+16 <sup>f</sup>
5 ( $n = 97$ )	$E_x \equiv$ rate 30 music CDs $E_y \equiv$ rate 30 movies	$R_x \equiv$ one free music CD $R_y \equiv$ one free movie video	31 <sup>b</sup>	24 <sup>a</sup>	+7
6 ( $n = 63$ )	$E_x \equiv$ accumulate \$700 of grocery bills $E_y \equiv$ accumulate \$700 of phone bills	$R_x \equiv$ Braun food processor $R_y \equiv$ Sony cordless phone	21	-20	+41 <sup>d</sup>

<sup>a</sup>Indicates a preference for effort-reward congruity that is significantly greater than zero at the 5% level.

<sup>b</sup>Indicates a preference for effort-reward congruity that is significantly greater than zero at the 1% level.

<sup>c</sup>Indicates a preference for effort-reward congruity that is significantly smaller than zero at the 5% level.

<sup>d</sup>Indicates a preference for effort-reward congruity that is significantly higher (at the 5% level) in the control than the reduced promotion reactance condition.

<sup>e</sup>Indicates a preference for effort-reward congruity that is significantly higher (at the 1% level) in the control than the reduced promotion reactance condition.

<sup>f</sup>Indicates a preference for effort-reward congruity that is significantly higher (at the 10% level) in the control than the reduced promotion reactance condition.

consumers choose effort-congruent rewards in order to reduce the perception of external inducements. In particular, when a manipulation intended to lower promotion reactance is applied prior to reward choices, the need to reduce reactance is alleviated, and, consequently, the preference for congruity is attenuated. Further, similar to the findings of study 2, the results of the present study cannot be explained by the three rival accounts outlined above. Next, to gain greater insights into underlying mechanisms, two key boundary conditions are examined.

## REQUIRED EFFORT AS AN ANTECEDENT OF PROMOTION REACTANCE

The studies presented so far have focused on situations in which attaining rewards required investing effort. It was argued that such effort-dependent rewards offer an (external) explanation for the investment of effort and, therefore, can generate reactance. However, prior research has shown that when extrinsic rewards are psychologically insufficient to account for the expending of effort, people attribute their behavior to their own dispositions and preferences (Lepper, Greene, and Nisbett 1973). In such situations, promotion reactance and the related preference for congruent rewards should be weaker.

Specifically, consumers are expected to prefer rewards that are congruent with their source or sponsor (e.g., free groceries from a grocery store) only when the rewards require investing effort (e.g., accumulating a certain level of grocery purchases). In such effort-based promotions, the rewards can provide a salient explanation for one's consumption behavior. Therefore, to counteract attributions of

external influence, consumers may choose effort-congruent rewards.

In contrast, when identical rewards are obtained from the same source but do not directly depend on personal effort (e.g., when frequent grocery shoppers automatically participate in a grocery store lottery or when someone else invests the effort), the rewards cannot account for one's own consumption behavior. Such effortless promotions should not arouse reactance and, consequently, are expected to attenuate the preference for source-congruent rewards.

**H4:** The preference for rewards that are congruent with their source will be attenuated when rewards are effort-free rather than effort-based.

Next, two studies that tested hypothesis 4 are reported.

### Study 4a: The Role of Effort in Reward Choices

The prediction that consumers will be more likely to choose rewards that are congruent with their source when these rewards require the investment of personal effort was tested by randomly assigning respondents to either an effort (LP) condition or a no-effort (lottery) condition. Within each of these conditions, the source of the reward was varied (between subjects), and respondents were asked to choose between two rewards—one that was congruent with the source and a second that was incongruent (the identity of the [in]congruent reward was reversed across the two source conditions). As described next, this study also allowed for a particularly strong test of the preference for effort-reward congruity, because the incongruent reward was systemati-

cally manipulated to have higher monetary value relative to the congruent reward.

*Method.* One hundred forty-two respondents (airport travelers) were randomly assigned to one of four conditions in a 2 (reward source: grocery chain vs. phone company)  $\times$  2 (effort level: LP effort vs. no effort) between-subjects design. The LP effort condition required accumulating \$700 of payments for grocery or phone bills (between subjects). Conversely, the effort-free lottery was described as being conducted by a grocery chain or a phone company (between subjects) for frequent customers (who participate automatically in the lottery). All other information about the promotion sponsor was held constant across the two effort-level conditions (i.e., LP vs. lottery). In all conditions, respondents were asked to choose between two rewards: credit toward future bills at either the grocery chain or the phone company. However, the monetary value of the rewards was varied so that the source-congruent reward had a lower monetary value than the source-incongruent reward (\$70 vs. \$90, respectively). Thus, when the LP (or lottery) was offered by the grocery chain (phone company), respondents were asked to choose between \$70 (\$90) of grocery credit and \$90 (\$70) of phone credit.

*Results.* Consistent with hypothesis 4, respondents exhibited a strong preference for source-congruent rewards in the LP effort condition but not in the effort-free lottery condition. Specifically, when consumers were required to accumulate \$700 of grocery payments, 68% (21 of 31) chose the (dominated) \$70 grocery credit over the \$90 phone credit. However, when they were required to accumulate \$700 of phone payments, only 30% (10 of 33) chose the \$90 grocery credit over the (dominated) \$70 phone credit. Thus, in the LP effort conditions, the results indicated a substantial congruity effect with  $\Delta P(R_x; R_y) = 38\%$  ( $n = 64$ ;  $t = 3.2$ ;  $p < .005$ ).

In contrast, when consumers participated in the (effort-free) grocery chain lottery, 73% (27 of 37) chose the (dominated) \$70 grocery credit over the \$90 phone credit. However, when they participated in the phone company lottery, 65% (22 of 34) chose the \$90 grocery credit over the (dominated) \$70 phone credit. Thus, in the no-effort lottery conditions, the congruity effect did not approach statistical significance ( $\Delta P(R_x; R_y) = 8\%$ ;  $n = 71$ ;  $t = 0.7$ ;  $p > .1$ ). Consistent with the reactance-based account, the difference in the observed congruity effects between the LP effort and no-effort conditions was statistically significant ( $\Delta P(R_x; R_y) = 38\%$  vs. 8%;  $t = 1.8$ ;  $p < .05$ ).

#### Study 4b: The Effect of Self- versus Other Effort

A possible limitation of the previous study is that the presence versus absence of personal effort was manipulated using different types of promotions, namely, LPs versus lotteries. Thus, there is a risk of confounding effects due to other differences between these promotions, which may have led to the observed variation in the tendency to select

source-congruent rewards. Accordingly, two additional tests of hypothesis 4 were conducted. In these tests, the presence versus absence of personal effort was manipulated by informing respondents that they would receive a choice between two rewards after either they or their friend engaged in a particular consumption effort.

This study also allows us to directly test one of the alternative explanations for the effort-reward congruity preference, namely, that respondents infer their tastes from the stated program requirements (hereafter, the “inference” account). According to this explanation, respondents presume that they desire or need the required consumption activity and, therefore, choose a similar or identical reward. This account cannot explain the findings that the preference for effort-reward congruity is significantly weaker among low reactance individuals (study 2) and among participants assigned to a reactance-reduction manipulation (study 3). Moreover, respondents should have made similar inferences about their tastes in the lottery promotion used in study 4a, which was described as being conducted for customers who made frequent purchases. Nevertheless, the present study directly examined the inference account by examining whether the reported enjoyment and frequency of engaging in a consumption activity varied with the stated program requirement.

*Method.* Hypothesis 4 was tested in two problems, one of which involved a frequent rater program (173 train station travelers) and the other a frequent cereal eater versus frequent flyer program (191 train station travelers). In each problem, respondents were randomly assigned to one of four conditions in a 2 (effort requirement:  $E_x$  vs.  $E_y$ )  $\times$  2 (effort level: self- vs. other effort) between-subjects design. More specifically, in the frequent rater program, respondents considered a Web site that rewarded users for rating either 30 music CDs or 30 movies (manipulated between subjects). In the self-effort condition, respondents had to personally invest the rating effort in order to earn a reward. In contrast, in the other-effort condition, respondents were told that a friend would invest the rating effort, but, because they had recently helped their friend with some tedious house chores, their friend would give them the reward. In all conditions, respondents chose between two rewards, a music CD and a movie video. After making their choice, respondents were asked to rate (using four separate seven-point scales) their enjoyment and frequency of hearing music and seeing movies.

In a second problem, respondents were randomly assigned to either a frequent cereal eater program or a frequent flyer program. The frequent cereal eater program required purchasing 10 cereal boxes in order to earn a choice between 500 frequent flyer miles (accepted by any frequent flyer program) and three boxes of cereal from the sponsoring brand. The frequent flyer program required flying 5,000 mi. with a national airline in return for a choice between 500 frequent flyer miles (accepted only by the sponsoring frequent flyer program) and three boxes of cereal (from any brand). It is noteworthy that the rewards were restricted (i.e.,

to a particular sponsor) when they were congruent rather than incongruent with the required effort. The effort level (self- vs. other effort) was manipulated using the procedure described earlier. After respondents made their choice, they rated their enjoyment and frequency of eating cereals and flying.

**Results.** The results of both problems support hypothesis 4. Specifically, in the frequent rater program, there was a substantial effort-reward congruity preference of  $\Delta P(R_x; R_y) = 22\%$  ( $n = 82$ ;  $t = 2.0$ ;  $p < .05$ ) in the self-effort condition but no such preference in the other-effort condition (i.e.,  $\Delta P(R_x; R_y) = -1\%$ ;  $n = 91$ ;  $t = 0.1$ ;  $p > .1$ ). The 23% difference in the observed congruity effects between the self- and other-effort conditions was marginally significant and in the direction predicted by hypothesis 4 ( $t = 1.5$ ;  $p < .07$ ).

In addition, respondents' reported enjoyment and frequency of engaging in the effort activities did not vary significantly with the stated effort requirement, effort level, or interaction involving these variables (all  $p$ 's  $> .1$ ). It should be noted that the enjoyment and frequency ratings did vary significantly with reward choices and, thus, apparently captured respondents' wants and needs. These findings are inconsistent with the taste-inference account.

Similarly, in the frequent cereal eater versus frequent flyer program, respondents exhibited a statistically significant effort-reward congruity preference of  $\Delta P(R_x; R_y) = 28\%$  ( $n = 96$ ;  $t = 3.0$ ;  $p < .005$ ) in the self-effort condition, whereas they did not exhibit such a congruity preference in the other-effort condition (i.e.,  $\Delta P(R_x; R_y) = 3\%$ ;  $n = 97$ ;  $t = 0.4$ ;  $p > .1$ ). This statistically significant difference in the observed effort-reward congruity effects supports hypothesis 4 ( $t = 1.9$ ;  $p < .05$ ). The results pertaining to the enjoyment and frequency ratings were similar to those in the frequent rater program, further ruling out the inference account.

### Effort as an Antecedent of Promotion Reactance: Discussion

Using two quite different methodologies, it was shown that the preference for source-congruent rewards is attenuated when rewards are independent of personal effort. Such effort-free rewards cannot account for one's consumption behavior and therefore do not create reactance. However, in both studies, consumers who were required to invest personal effort chose congruent rewards that were dominated by the incongruent rewards (i.e., the former had lower monetary value or more restrictions than the latter). Thus, consumers effectively paid a premium in order to reduce the perception of an external inducement and protect their sense of freedom. The effect of personal effort was replicated in three studies that examined consumers' self-generated rewards and likelihood of participating in individual promotions (information about these studies can be obtained upon request).

It should be noted that the findings regarding personal

effort cannot be explained as a preference for spending windfall or effort-free (lottery) money on frivolous or non-routine rewards. First, the rewards used in the studies were equally utilitarian (e.g., phone and grocery credit in study 4a). Second, in study 4b, respondents in the other-effort condition were told that their friend was giving them the reward because they had recently helped their friend with tedious house chores; that is, the reward was not an effort-free windfall.

The results also rule out various alternative explanations (discussed further in the general discussion) for the preference for effort-reward congruity. In particular, if choice of effort-congruent rewards reflects other factors, such as income-source effects and cognitive accessibility (priming) that are unrelated to an attempt to reduce reactance, then we would expect to observe similar rates of choices of source-congruent rewards when no effort is required. For example, if the required effort activity primes a preference for a consistent reward, then this preference should arise regardless of whether the effort is personal. Next, the proposed theoretical explanation is further tested by examining whether the preference for effort-reward congruity is weaker when the effort is not deliberately invested in order to earn a reward.

### THE EFFECTS OF PREMEDITATED VERSUS INCIDENTAL REWARDS

Researchers investigating the overjustification hypothesis (e.g., Lepper et al. 1973) have shown that the receipt of an unforeseen, unexpected reward after engaging in an activity does not have a deleterious effect on subsequent intrinsic motivation, although explicitly engaging in this activity in order to earn the reward does have an adverse effect (compared with a no-award, control condition, in which subjects engage in this activity but neither expect nor receive the reward). This finding suggests that the process of attributing one's behavior to an extrinsic reward (instead of to one's own intrinsic motivation) requires that the behavior serve as a premeditated means for obtaining the reward. Indeed, in the studies reported earlier, the preference for effort-reward congruity was obtained in situations in which consumers were explicitly contracting to engage in an (LP) effort in order to earn a future reward.

The preceding analysis suggests that reactance will not be aroused when consumers are offered an unexpected reward for engaging in a consumption effort (i.e., when the effort is invested without the anticipation of a future reward). Such unforeseen rewards, which are incidental by-products of investing effort, cannot threaten perceived freedom because they do not engender the attribution that one's behavior is externally driven. Consequently, in such cases, the preference for effort-reward congruity should be attenuated. Thus:

**H5:** Consumers will be less likely to choose effort-congruent rewards when obtaining the reward is an incidental by-product, rather than the intention, of investing effort.

### Study 5: The Impact of Premeditated versus Incidental Rewards in a Real Loyalty Program

To allow for a strong and realistic test of hypothesis 5, the present study employed a field experiment in which customers made real choices in the context of an actual café LP. As described next, customers participated in a frequent coffee buyer program, in which after making 10 coffee purchases they earned a choice between a free coffee and a free baked good (effort-congruent vs. effort-incongruent reward, respectively). The choices of frequent customers between these two rewards were measured in four different situations:

- Situation 1: Upon joining the LP, before any effort was invested (premeditated reward);
- Situation 2: Upon completing LP, after complying with the required effort (premeditated reward);
- Situation 3: As a surprise appreciation reward for their coffee purchases (incidental reward); and
- Situation 4: As a thank-you reward for completing a survey (incidental reward).

By contrasting reward choices among these four different situations, we can examine hypothesis 5 as well as several other related predictions. Specifically, hypothesis 5 implies that consumers will be more likely to choose the effort-congruent reward (a free coffee) when the reward is the intention rather than an incidental by-product of the consumption effort (i.e., situations 1 and 2 vs. situations 3 and 4). That is, while in situations 1 and 2 customers are aware that they have explicitly contracted to purchase coffees in order to earn a reward, in situations 3 and 4 they perceive their consumption behavior as independent of the reward. Consequently, in the latter situations, promotion reactance and the related preference for the effort-congruent reward should be weaker.

Relatedly, it is expected that frequent coffee drinkers will be least likely to choose the coffee reward when they are awarded for completing a survey about the café and their coffee purchase habits (i.e., situation 4), because in this case the attainment of reward is most clearly unrelated to their (coffee) consumption. Further, because rewards cannot influence past behavior, they should arouse less reactance after compliance with the required effort. Therefore, it is expected that frequent customers will be less likely to choose the effort-congruent reward after they comply with the required effort than when they join the program (situation 2 vs. situation 1, respectively). Next, the field study's method is described, followed by aggregate-level as well as individual-level analyses of the reward choices.

*Method.* The participants in the field experiment were 1,308 customers of a café located within the campus of a large East Coast university. The café had several on-campus locations. Customers were offered to enroll in a frequent coffee buyer program, in which they had to make 10 coffee purchases in order to earn a choice between two rewards, a free coffee (the effort-congruent reward) and a free baked good (biscotti, croissant, or muffin). To allow tracking their

purchases, customers were required to carry a frequent coffee buyer card. They received one stamp on the card for each coffee purchase they made (only one stamp per visit was permitted). Once they accumulated 10 such stamps, customers were eligible for a free reward redeemable on their next visit to the café.

Upon joining the program, customers were asked to indicate their choice of (future) reward on the back of the card (each card had a unique ID). This constitutes the reward choice measurement in situation 1. Subsequently, after completing 10 purchases and returning to the café to redeem their card for a reward, a café employee marked (on the back of the card) the reward actually redeemed by the customer. This constitutes the reward choice measurement in situation 2.

Several weeks after the launch of the program, research assistants (posing as café employees) intercepted card-holding customers at the café and offered them, as an appreciation reward for their frequent coffee purchases, a choice between a free coffee and a free baked good. The customers were asked to indicate which appreciation reward they preferred and then received a reward certificate (redeemable on their next visit to the café). This constitutes the reward choice measurement in situation 3. After making their reward choice, these customers were asked to indicate how many stamps they currently had on their card and their name (they were told that this information was required for the café's records). The research assistants also unobtrusively recorded the customers' program card ID. Altogether, over a period of several weeks, a subset of 177 card-holding customers were intercepted and offered an appreciation reward for their frequent coffee purchases.

Finally, several weeks after the launch of the program, research assistants (posing as café employees) intercepted card-holding customers at the café and invited them to complete a survey about the café. The survey addressed issues relating to the frequent coffee buyer program, the customer's coffee purchase and consumption habits, and the customer's perceptions of the café (the customer's name and program card ID were also recorded). As a thank-you reward for completing the survey, customers received a choice between a free coffee and a free baked good (the thank-you reward was redeemable on their next visit to the café). This constitutes the reward choice measurement in situation 4. Altogether, a subset of 98 card-holding customers were intercepted and offered a thank-you reward for completing a survey (these were different individuals from those who received an appreciation reward in situation 3).

*Results and Discussion.* To test hypothesis 5 and the related predictions, customers' reward choices were analyzed both at the aggregate and the individual levels.

Aggregate-level analyses: Table 2 presents the aggregate-level percentages of frequent customers choosing the coffee over the baked good as their reward. The results support hypothesis 5, which states that the preference for the effort-congruent reward should be stronger when obtaining the reward is the intention, rather than an incidental by-product,

**TABLE 2**  
 AGGREGATE-LEVEL CHOICE SHARES IN THE PREMEDITATED VERSUS INCIDENTAL REWARD  
 CONDITIONS (STUDY 5)

Reward situation		Aggregate choice share of coffee relative to baked good reward (%)
Situation 1 (premeditated reward)	Reward choice upon joining the LP	89 ( <i>n</i> = 1,119)
Situation 2 (premeditated reward)	Reward redemption upon completing the LP	85 ( <i>n</i> = 1,221)
Situation 3 (incidental reward)	Surprise appreciation reward for coffee purchases	68 ( <i>n</i> = 177)
Situation 4 (incidental reward)	Thank-you reward for completing a survey	60 ( <i>n</i> = 98)

NOTE: The difference in the aggregate shares of the coffee reward between each two of the above four situations is statistically significant at the 1% level (except for the 8% difference in the shares between situations 3 and 4, which is marginally significant at the 10% level).

of investing the consumption effort. In particular, while 85% of frequent customers who redeemed a reward for making 10 coffee purchases chose the congruent (coffee) reward (i.e., in situation 2), only 68% and 60% of frequent customers chose this reward when they obtained it as an incidental by-product of their coffee purchases (i.e., in situations 3 and 4, respectively). It is noteworthy that customers' choices among the appreciation rewards (situation 3) and the thank-you rewards (situation 4) were not affected by the number of card stamps (which ranged from 1 to 10) that they had accumulated at that point in time (both  $p$ 's > .1). Thus, the differences between the reward choices observed in situation 2 versus situations 3 and 4 cannot be explained away as a result of the time of choice and/or the level of effort already invested.

Further, as expected, frequent customers were least likely to choose the coffee reward (60%) when they were awarded for completing a survey (in situation 4). In this case, the reward was least likely to be perceived as an external inducement to engage in consumption effort. Therefore, this incidental thank-you reward did not call for the affirmation of consumer freedom through effort-congruent rewards. Finally, customers were less likely to prefer the effort-congruent (coffee) reward after complying with the required effort (85% in situation 2) than when they joined the program (89% in situation 1). This finding is consistent with the notion that, because an external incentive cannot influence past (sunk) effort, it poses less threat to consumer freedom.

**Individual-level analyses:** To test hypothesis 5 at the individual-customer level, the card IDs as well as customer names were used to contrast reward choices made by the same customer in two different situations (the sample sizes in the individual-level analyses are smaller than those in the aggregate-level analyses because some customers did not redeem their cards, were not required to indicate their choice at the time of joining the program, or could not be matched across two situations using the various identification records). For each pair of situations, a customer may reveal

one of two preference reversals, either choosing the (effort-congruent) coffee reward in one situation and the baked good in the other situation, or vice versa (of course, a customer could also reveal consistent preferences, e.g., choosing coffee on both occasions). Hypothesis 5 implies that a substantial proportion of customers will choose the effort-congruent coffee reward in situation 2 (when redeeming the intentional LP reward) but will choose the baked good in situation 3 (when receiving an appreciation reward that is an incidental by-product of investing the effort). Consistent with this hypothesis, 28% (20 of 72) of frequent customers chose the effort-congruent coffee reward when redeeming their card but chose the baked good when receiving the incidental appreciation reward. Conversely, only 7% (5 of 72) revealed the opposite preference reversal. The rate of hypothesized preference reversals was significantly greater than that of the opposite reversals ( $p < .01$ ).

Similarly, hypothesis 5 implies that a substantial proportion of customers will choose the effort-congruent reward in situation 2 (when redeeming the intentional LP reward) but will choose the baked good reward in situation 4 (when receiving an incidental thank-you reward for completing a survey). In support of this prediction, 24% (9 of 37) of frequent customers chose the effort-congruent coffee reward when redeeming their card but chose the baked good when receiving the incidental thank-you reward. Conversely, only 8% (3 of 37) of customers exhibited the opposite preference reversal. The rate of hypothesized preference reversals was significantly greater than that of the opposite reversals ( $p < .05$ ).

Finally, consistent with the notion that promotion reactance is weaker when the reward is provided for prior behavior, 6% (61 of 1,034) of frequent customers chose the effort-congruent coffee reward when joining the program but then chose the baked good when redeeming their card. Conversely, only 3% (27 of 1,034) of customers revealed the opposite preference reversal. The rate of hypothesized preference reversals was significantly greater than of the opposite reversals ( $p < .01$ ).

In summary, this field experiment tested hypothesis 5 and the operation of promotion reactance using real customer choices made in the context of an actual café LP. As predicted, customers were significantly less likely to choose effort-congruent rewards when their effort was not deliberately invested for the sake of extrinsic reward. In such cases, the effort-reward relationship seems incidental, and consumers do not perceive a threat to their freedom. Consequently, there is no need to reduce reactance and choose effort-congruent rewards.

## GENERAL DISCUSSION

Despite voluminous research on promotions, the basic notion that they can evoke reactance has not yet been studied. This article assumes that consumers perceive certain promotions as intended to control their consumption and/or limit their brand choice, which gives rise to promotion reactance. It is further proposed that consumers reduce such reactance and reaffirm their autonomy by selecting promotions and incentives that foster a consistency between the reward and the reinforced behavior. Such effort-reward congruity allows consumers to construe their consumption as intrinsically motivated rather than externally driven. This section discusses alternative explanations and relates the present research to the literature on intrinsic motivation.

### Main Findings and Alternative Explanations

The robust preference for effort-reward congruity was demonstrated in study 1. Studies 2–5 provided evidence that such preferences are motivated by attempts to reduce reactance. Specifically, an investigation of moderators and boundary conditions revealed that the congruity preference is attenuated when (a) consumers experience lower levels of psychological reactance, (b) promotion reactance is reduced prior to reward choices, (c) attaining rewards does not require personal effort, and (d) the reward is an incidental by-product (rather than the intention) of investing the effort.

These moderators and boundary conditions rule out several alternative explanations for the preference for effort-reward congruity, including (1) mental accounting, whereby the use of income is matched with its source (O'Curry 1999; Thaler 1985), (2) cognitive accessibility or priming, whereby the required effort primes congruent rewards (e.g., Herr 1989), and (3) inferences about one's tastes, whereby the engagement in effort signals its value. While all of these alternative explanations predict that consumers should prefer rewards that match the sponsor or source of the promotion, none of them can account for the results of studies 2–5. First, the rival accounts cannot explain why the tendency to experience psychological reactance moderates the preference for effort-reward congruity (study 2). Second, these accounts cannot explain why a reactance-reduction manipulation reverses the otherwise robust congruity preference (study 3).

Third, the rival accounts are inconsistent with the findings

that the preference for congruent rewards is attenuated when personal effort is not required or is not intentionally invested to earn a reward (studies 4 and 5, respectively). For example, if matching income with its source explains choices of effort-congruent rewards, then consumers should make similar choices when they receive an incidental appreciation reward for exerting the same effort. Further, the program requirements should prime congruent rewards regardless of who is to invest the effort—the respondents or their friends. And, if consumers choose effort-congruent rewards because they infer their tastes from the required effort, then they should make comparable or stronger inferences when the effort was incidental to reward attainment or already invested; however, in actuality, consumers' preferences for congruent rewards decreased in such cases. Finally, the inference account is inconsistent with the finding (obtained in study 4b and several other tests) that the stated program requirements did not affect the perceived enjoyment and frequency of engaging in the effort and reward activities.

### Implications for Intrinsic Motivation

Building on a synthesis of reactance theory with overjustification, it was proposed that effort-incongruent incentives facilitate an attribution that one is acting in accordance with extrinsic inducements instead of one's own desires. This underlying attributional process has also been implicated in the detrimental effect of extrinsic rewards on subsequent intrinsic motivation (i.e., the overjustification effect) and in the negative effect of price promotions on brand loyalty after deal retraction (Dodson et al. 1978).

A question that naturally arises is whether the impact of the effort-reward relation extends beyond reward preferences to the subsequent interest in the promoted consumption activity. Specifically, would engaging in an effort activity for the sake of an effort-congruent rather than incongruent reward lead to greater preference and long-term loyalty for the reinforced activity? It is striking that research on intrinsic motivation has not examined rewards identical to the required effort. Thus, further research could investigate whether the use of effort-congruent rewards attenuates the well-known overjustification effect.

Finally, beyond the theoretical significance of promotion reactance and the related preference for effort-reward congruity, this issue has important implications for the design of incentive programs and other motivational plans. For example, while many LPs in the current marketplace offer effort-congruent rewards, numerous other programs use rewards that differ considerably from the promoted consumption (e.g., Kellogg's offers 1,000 AAdvantage frequent flyer miles for consumers who buy 10 cereal boxes). The issue of whether or not to provide in-kind (i.e., effort-congruent) rewards is a topic of continuing debate among marketers and consultants. Although multiple factors should determine the appropriate rewards for LPs (Kivetz 2003; Kivetz and Simonson 2002), this research indicates that, *ceteris paribus*, effort-congruent benefits may engender desirable attributions and better fit consumer preference. In-

terestingly, some industry pundits cite the overreliance on frequent flyer miles as a reason for the weakness of hotel LPs in the early nineties; conversely, they cite the increased availability of hotel-related redemption opportunities (e.g., free stays and room upgrades) as a driver of recent improvements in such programs' effectiveness (Barlow 1996). Indeed, the present research suggests that both marketers and consumers may benefit from incentive systems that reinforce the effort activity and emphasize intrinsic motivation rather than extrinsic inducements.

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