

# The Role of the Need for Cognitive Closure in the Effectiveness of the Disrupt-Then-Reframe Influence Technique

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The disrupt-then-reframe (DTR) influence technique involves confusing consumers with a disruptive message and then reducing ambiguity by reframing the message. Experiment 1 shows that the DTR technique increases retail sales in a supermarket setting. Experiment 2 shows that the DTR technique increases the willingness to pay to join a student interest group. Experiment 3 shows that the DTR technique increases student support for a tuition increase. The results also show that the DTR effect increases as the need for closure increases and that disruption motivates consumers to embrace a reframed message that facilitates closure by reducing ambiguity.

Although encounters between commercial sales representatives and consumers are one of the more common types of interpersonal interactions found in everyday life, relatively little research has been conducted on interpersonal influence attempts applied to commercial settings. The vast majority of interpersonal influence studies have focused on students' compliance with nonmonetary requests concerning prosocial issues made by other students (e.g., Cialdini 2001). Relatively few studies have focused on nonstudents' compliance with monetary requests made by sales representatives in commercial contexts. In this research, we investigate a specific class of sales representatives' requests involving the use of confusion to reduce resistance to influence in a supermarket setting. We also examine the interplay between

responses to confusing sales pitches and consumers' aversion to ambiguity.

Research on personal selling suggests that seemingly trivial variations in the wording of a request can increase compliance, product purchase, usage rates, and revenue (Howard, Gengler, and Jain 1995; Kirmani and Campbell 2004; Spangenberg and Sprott 2006; Tybout, Sternthal, and Calder 1983). The foot-in-the-door, door-in-the-face, that's-not-all, lowballing, self-prophecy, and other interpersonal influence techniques have been shown to be effective in many different contexts. In this research, we investigate the effectiveness of a relatively new influence technique known as the disrupt-then-reframe (DTR) technique, which involves preceding a request with a disrupting or confusing message (Davis and Knowles 1999; Fennis, Das, and Pruyn 2004). Disruption has been thought to reduce counterarguing and to increase susceptibility to the reframing or rewording of the message. The DTR technique has been shown to increase sales of Christmas cards, note cards, and cookies in door-to-door sales campaigns for various nonprofit organizations (Davis and Knowles 1999) and also to increase sales of lottery tickets and to increase students' acceptance of a tuition increase (Fennis et al. 2004). However, evidence supporting the psychological processes that moderate and mediate the DTR effect is scant.

In the seminal investigation of the DTR effect, Davis and Knowles (1999) used a subtle disruption in which the price

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*John Deighton served as editor and Gavan Fitzsimons served as associate editor for this article.*

*Electronically published May 11, 2007*

of a product was indicated in pennies: "The price of these note cards is 300 pennies." This disruption was followed by the reframing: "That's \$3. It's a bargain." Across four experiments, compliance rates ranged from 65% to 90% in DTR conditions, compared to only 25% to 50% in disruption-only and reframe-only (or request-only) control conditions.

In our first field experiment, we sought to replicate the DTR effect in a for-profit supermarket setting. Moderating processes were examined in a second field experiment and in a laboratory experiment. Specifically, we investigated the moderating role of the need for cognitive closure, which is defined as the "desire for a firm answer to a question and an aversion toward ambiguity" (Kruglanski and Webster 1996, 264). As the need for cognitive closure (NFCC) increases, consumers "seize" on information that facilitates the prompt attainment of cognitive closure, such as unambiguous, early, salient, accessible, or easy-to-process information that has direct and obvious implications for judgment and behavior. Furthermore, once cognitive closure has been attained, consumers high in NFCC "freeze" on their judgments by holding them with a high degree of confidence and by refraining from considering additional evidence that could potentially threaten closure (Kruglanski 2004).

Research shows that as NFCC increases, ambiguity aversion increases and fewer alternative interpretations of evidence are considered when people render judgments (Maysel and Kruglanski 1987). As a consequence, NFCC moderates a wide variety of important judgmental phenomena, including the primacy effect (Kruglanski and Freund 1983, experiment 1), stereotyping (Kruglanski and Freund 1983, experiment 2), anchoring (Kruglanski and Freund 1983, experiment 3), construct accessibility effects (Ford and Kruglanski 1995), correspondence bias (Webster 1993), in-group bias (Shah, Kruglanski, and Thompson 1998), the noncomplementarity effect (Houghton and Kardes 1998), and selective information processing (Kardes et al. 2004). Each of these effects increases as NFCC increases because individuals high in NFCC are more likely to base their final judgments on early information that facilitates quick closure while neglecting later information, ambiguous information, or otherwise difficult-to-process information that delays closure.

We predict that NFCC should also moderate the effectiveness of the DTR technique. We suggest that this technique relies on creating ambiguity to motivate consumers to comply with a request and that because ambiguity aversion is greater for consumers high in NFCC, the DTR technique should be more effective as NFCC increases. Specifically, for consumers high in NFCC, the disrupting or confusing statement used in the opening of the DTR technique should be perceived as ambiguous. Any variable that delays closure should be experienced as unpleasant or bothersome by consumers high in NFCC and should motivate them to seek information that reduces ambiguity and, therefore, facilitates closure. The reframing portion of the DTR technique conveniently provides this type of information

precisely when it is needed. Reframing is also designed to have immediate and direct implications for action and this, too, satisfies the desire to reach closure quickly.

By contrast, consumers low in NFCC do not perceive ambiguity as unpleasant or bothersome and are therefore not motivated to reduce ambiguity. Consequently, the disruption portion of the DTR technique should not motivate low-NFCC consumers to embrace the subsequent reframing portion of the DTR technique because they experience no urgency to reduce ambiguity or to reach closure quickly. Hence, NFCC should moderate the effectiveness of the DTR technique. The technique should be more effective as NFCC increases because ambiguity aversion increases as NFCC increases. Furthermore, the effectiveness of the DTR technique should be mediated by perceived ambiguity because ambiguity should motivate high-NFCC consumers to seize on the subsequent reframing that removes the ambiguity and facilitates closure.

**H1:** The DTR technique should increase compliance with a monetary request presented in a commercial context.

**H2:** The DTR technique should be more effective as consumers' NFCC increases.

**H3:** The DTR effect should be mediated by perceived ambiguity.

## OVERVIEW

Two field experiments and a laboratory experiment were conducted to test these hypotheses. Field experiment 1 examined the effectiveness of the DTR technique in a supermarket setting to assess the extent to which the impact of the DTR technique can be demonstrated in other than the nonprofit settings in which the technique was originally tested (Davis and Knowles 1999). Field experiment 2 examined the willingness of students to pay to join a student interest group, as a function of the DTR technique. Because this was a field experiment, the brief NFCC scale (Houghton and Grewal 2000) was employed. Laboratory experiment 3 examined whether the DTR technique could increase student support for a tuition increase at their university. Because this was a laboratory experiment, the full 42-item NFCC scale (Webster and Kruglanski 1994) was employed. In addition, perceived ambiguity was measured at different stages of the DTR technique.

## EXPERIMENT 1

The first study was designed to assess the effectiveness of the DTR technique in a European retail setting. We tested the impact of the DTR in a commercial dyadic setting in a supermarket, where customers encountered a sales stand at which a special offer of candy was presented to them by one of five confederates, acting as sales personnel (three

males, two females). In presenting the offer, the confederate either used the DTR technique or employed a reframe-only (or request-only portion of the DTR technique) control script. In accord with past research (Davis and Knowles 1999), we hypothesized that the DTR technique would be more effective in fostering compliance with the sales request than the reframe-only (or request-only) control condition.

## Method

*Participants and Design.* This study employed a between-subjects single-factor design (DTR vs. reframe only control). Each of the confederates, acting as sales representatives, approached customers at a sales stand with a request to buy a box of candy at a special rate. Individuals were counted as participants if they stopped before the sales stand and listened to the entire script. Following this procedure, a total of 147 persons (43 males, 104 females) participated in the study. The sample had a mean age of 46 years ( $SD = 14.89$ ). The sales representative introduced himself or herself and the offer and then proceeded with the appropriate sales script.

*Procedure.* In the introduction, the confederate indicated that, because it was the holiday season, the supermarket was selling candy at special rates. More specifically, he or she stated: "Christmas is rapidly approaching, and therefore these boxes of Christmas candy are on special offer today!" The confederate then presented the customer with the box of candy and continued with the experimental or control script.

Participants were randomly assigned to the DTR condition or the reframe-only (or request-only) control condition. In the DTR condition, the salesperson exposed the participant to a subtle disruption, followed by a reframe, stating: "The price is now 100 Eurocents [approximately 100 pennies] . . . (2 second pause) that's 1 Euro. It's a bargain!" In the reframe-only control condition, the disruption was omitted, and the price was simply stated in Euros: "The price is now 1 Euro. It's a bargain!"

*Dependent Measure: Behavioral Compliance.* The confederate waited until the customer responded to the offer. Adding one or more boxes of candy to the shopping cart of groceries was recorded as complying with the sales request.

## Results and Discussion

In total, 54% of the participants agreed to buy the special offer of candy. Results of the analysis using logistical regression showed a significant impact of the DTR technique in that 65% of participants exposed to the DTR bought the candy, whereas 44% of the individuals in the reframe-only control condition did so ( $Wald(1) = 6.60, p < .01$ ).

These results replicate and extend earlier findings concerning the DTR technique, indicating that a subtle variation in the wording of an otherwise conventional sales script

increases compliance rates among participants. Participants complied more often with the sales request in the DTR condition than they did in the reframe-only control condition. These findings demonstrate that the scope of the DTR technique reaches beyond the settings in which the original studies were conducted. That is, the current results suggest that the DTR technique also affects compliance in commercial settings in addition to the nonprofit type of requests examined by the original authors (Davis and Knowles 1999).

## EXPERIMENT 2

To examine whether the effectiveness of the DTR is moderated by NFCC, a second field experiment was conducted in which participants were asked a small monetary request. In addition, individual differences in NFCC were assessed. It was expected that the impact of the DTR technique would be greater for consumers who were high, rather than low, in NFCC.

## Method

*Participants and Design.* In the current study, a male confederate pretended to act on behalf of a fictitious student interest group and approached students on the campus of the University of Twente, the Netherlands, requesting them to become a member of this group at a specified cost. Half of the participants were randomly exposed to a conventional script advertising membership. The other half was exposed to a DTR message. After the target request was posed, the participants were asked to complete a questionnaire introduced to them as containing some additional questions on students' lifestyles and opinions. This questionnaire contained our measure of individual differences in need for cognitive closure, the brief 20-item scale developed by Houghton and Grewal (2000). The 20-item scale was used for the sake of experimental efficiency in the field setting. In sum, the study employed a design with influence technique (DTR vs. reframe-only control) as a manipulated between-subjects factor and need for cognitive closure as a continuous predictor variable. A total of 155 students served as participants in this study (59% female, 41% male). Gender did not yield any main effects or interactions and was therefore not included in any further analysis.

All versions of the request started identically, with an introduction by the confederate of himself, the interest group on whose behalf he was acting, and the objectives the group was trying to achieve (i.e., improving the quality of academic curricula, reducing the costs of living for students, and assistance in obtaining an affordable apartment). After presenting the benefits of becoming a member of the target group, the confederate continued into the DTR manipulation.

*Disrupt-then-Reframe Procedure.* Following the introduction, the scripted influence technique was presented. In both conditions, participants were informed that membership in the interest group would cost 3 Euros (approximately \$3) for a half-year term. In the DTR condition, par-

ticipants were exposed to a subtle disruption, a 2-second pause and the reframe in the following way: "You can now become a member for half a year for 300 Eurocents [approximately 300 pennies] . . . (2-second pause). That's 3 Euros. That's a really small investment!" In the reframe only control condition, the disruption was omitted. In this condition, the script simply stated "You can now become a member for half a year for 3 Euros. That's a really small investment!"

*Need for Cognitive Closure.* To prevent a possible contingency bias and to protect the believability of the cover story, NFCC was assessed after the target request was posed. This individual difference characteristic was measured using a scale developed by Houghton and Grewal (2000). The instrument consists of 20 statements that were judged on a six-point scale (1 = strongly disagree to 6 = strongly agree). Sample items include: "I find that establishing a consistent routine enables me to enjoy my life," "I don't like unpredictable situations," and "When I am confused about an important issue, I feel very upset." The reliability of the instrument was somewhat low ( $\alpha = .63$ ), so a factor analysis was performed on the items. This yielded a solution with one major factor composed of six items (eigenvalue = 3.14). The six items were items 6, 25, 32, 33, 35, and 41 from the full 42-item scale, and in experiment 3, the correlation between the six-item scale and the 42-item scale was  $r = .79, p < .001$ . An index was created by averaging the scores on this factor ( $\alpha = .79$ ), and this index was used in all subsequent analyses. Consistent with the notion that this index measured stable individual differences in NFCC, there was no effect of the DTR manipulation on this index ( $F < 1$ ).

*Dependent Measure: Behavioral Compliance.* Compliance was measured by whether or not participants paid the membership fee of 3 Euros to join the interest group. Participants used their own money to pay this fee. After completion of the questionnaire, participants were thanked for their time and interest before the interaction was terminated. After data collection, participants who complied with the request were debriefed about the real nature of the experiment. All payments received were donated to a local charity.

## Results and Discussion

Overall, 22% of the participants agreed to become a member of the interest group. We conducted a logistic regression analysis of compliance as a function of influence technique (DTR vs. reframe-only control, effects coded) and NFCC, which was treated as a continuous predictor variable. Prior to analysis, we centered (i.e., set the mean to zero) scores on the NFCC index to reduce multicollinearity among the main effect and the interaction terms (Cohen et al. 2003). The DTR main effect was significant (Wald (1) = 8.08,  $p < .01$ ). More specifically, of those individuals exposed to the DTR technique, 30% complied with the target request,

whereas only 13% of reframe-only (or request-only) control participants complied. In addition, a significant effect of NFCC (Wald (1) = 6.93,  $p < .01$ ) showed that compliance increased as the need for cognitive closure increased ( $b = .87$ ). Of greatest import, the analysis yielded a significant DTR  $\times$  NFCC interaction (Wald (1) = 4.21,  $p < .05$ ). To decompose the interaction, a median split was performed on NFCC scores. For high-NFCC individuals, a significantly higher proportion of participants complied in the DTR (43%) compared to the control condition (17%,  $\chi^2(1) = 6.89, p < .01$ ). In contrast, for low-NFCC participants, the effect of the DTR technique was nonsignificant (16% vs. 9%,  $\chi^2(1) = .71, NS$ ).

These results both replicate and extend the findings of experiment 1. Overall, the disruption and reframing increased compliance to a request. However, this effect is qualified by an interaction between DTR and NFCC. As predicted, the DTR effect was greater for consumers who were high rather than low in NFCC. Because the DTR technique presumably creates and resolves ambiguity and because ambiguity aversion is greater among consumers high, rather than low, in NFCC, high-NFCC consumers are more susceptible to the DTR technique.

## EXPERIMENT 3

The goal of experiment 3 was to further investigate the moderating role of NFCC and to investigate the effects of disruption alone, reframing alone, and the full DTR technique on perceived ambiguity. It was predicted that perceived ambiguity would be higher in the disruption-only condition than in the DTR or reframe-only conditions. Disruption should impede closure and motivate consumers high in NFCC to seek clarifying information that facilitates the ability to reach closure quickly. Because experiment 3 was a laboratory study, with more time and fewer distractions, the full 42-item scale was used to measure NFCC (Webster and Kruglanski 1994). It was predicted that the DTR technique would be more effective as NFCC increases because ambiguity aversion increases with NFCC. It was also predicted that perceived ambiguity should mediate the DTR effect.

## Method

*Participants and Design.* One hundred thirty-seven undergraduates (69 males, 68 females) at Indiana University participated in partial fulfillment of a course requirement. Participants were randomly assigned to DTR, reframe-only, or disrupt-only control conditions. The DTR manipulation was decomposed into disrupt-only and reframe-only control conditions to permit an assessment of the effects of different portions of the DTR technique on perceived ambiguity.

*Procedure.* All sessions were conducted on computers using MediaLab 2000 software (Jarvis 2000). Participants were seated in four separate rooms equipped with computer stations and were asked to read the instructions on their

**TABLE 1**  
EFFECTS OF THE DISRUPT-THEN-REFRAME, REFRAME-ONLY, AND DISRUPT-ONLY PROCEDURES AND THE NEED FOR COGNITIVE CLOSURE ON PERCEIVED AMBIGUITY, ATTITUDE, AND BEHAVIORAL COMPLIANCE

Dependent measure	Disrupt then reframe	Reframe only	Disrupt only
Perceived ambiguity:			
High NFCC	10.61 <sub>a</sub>	11.46 <sub>a</sub>	14.55 <sub>b</sub>
Low NFCC	12.09 <sub>a</sub>	11.58 <sub>a</sub>	12.30 <sub>a</sub>
Attitude favorability:			
High NFCC	28.22 <sub>c</sub>	20.69 <sub>b</sub>	14.25 <sub>a</sub>
Low NFCC	22.77 <sub>b</sub>	21.68 <sub>ab</sub>	18.37 <sub>a</sub>
Willingness to donate time:			
High NFCC	2.39 <sub>b</sub>	1.46 <sub>a</sub>	1.10 <sub>a</sub>
Low NFCC	1.23 <sub>a</sub>	1.32 <sub>a</sub>	1.00 <sub>a</sub>
Vote in favor:			
High NFCC	4.43 <sub>c</sub>	3.42 <sub>b</sub>	1.60 <sub>a</sub>
Low NFCC	3.59 <sub>a</sub>	2.89 <sub>a</sub>	2.78 <sub>a</sub>

NOTE.—Higher means indicate higher perceived ambiguity, more favorable attitudes toward the tuition increase, a greater willingness to donate time by volunteering to phone students to urge them to support the tuition increase, and a greater likelihood of voting in favor of the tuition increase. For each row, different subscripts differ significantly ( $p < .05$ ).

monitors and begin the experiment. They were told that the study focused on “Campus Issues” and that “we were working with campus interest groups” and were interested in “the differences between various forms of communication: written, oral, and video.” All participants were then told that they were randomly assigned to the video condition. The actor in the video was a male theater major who was blind to the hypotheses.

In the DTR condition, participants saw a video in which the actor stated that the “Student Advocacy Council” believes that research is essential to the quality of education at a university and that money is necessary for research. Therefore, the group is arguing for “an increase in tuition of 7,500 pennies . . . (2-second pause) That’s \$75, it’s a really small investment.”

Two control conditions were also included in the experimental design. In the reframe-only (or request-only) control condition, no disruption was presented and participants were told that the “Student Advocacy Council” is arguing for “an increase in tuition of \$75; it’s a really small investment.” In the disrupt-only control condition, no reframing was presented, and participants were told that the “Student Advocacy Council” is arguing for “an increase in tuition of 7,500 pennies.”

Next, the dependent measures were administered. After participants completed all of the dependent measures and the full 42-item Need for Cognitive Closure Scale (Webster and Kruglanski 1994), an NFCC index was created by summing the scores on this scale ( $\alpha = .82$ ).

*Perceived Ambiguity.* Following the video clip, perceived ambiguity was assessed using three scales ranging from 1 (strongly disagree) to 6 (strongly agree): “Right now I would describe myself as indecisive,” “I am struggling with the decision about the tuition issues,” and “I feel un-

certain about what to do.” Internal consistency was high ( $\alpha = .84$ ), so responses were averaged to form a composite measure of perceived ambiguity, with higher scores indicating higher perceived ambiguity.

*Attitudes.* Participants indicated their attitudes toward the tuition increase on six scales ranging from 1 to 9 with the following anchors: very negative–very positive, very bad–very good, very unfavorable–very favorable, very unpleasant–very pleasant, very harmful–very beneficial, and very foolish–very wise. Internal consistency was high ( $\alpha = .96$ ), so responses were averaged to form a composite attitude index.

*Behavioral Compliance.* Participants were told, “In the future, perhaps next year, we will be trying to recruit students who would be willing to volunteer some time to make phone calls to other students to tell them about the benefits of the tuition increase. If we were to ask you, how much time would you be willing to devote to making these phone calls?” Participants responded on a scale ranging from 1 (0 minutes) to 9 (36–40 minutes), with 5-minute intervals for each intermediate scale point. Participants also indicated their willingness to vote for the tuition increase on a scale ranging from 1 (definitely against) to 9 (definitely in favor). The correlations among the dependent measures were  $r = .47$  for attitudes and volunteering,  $r = .65$  for attitudes and voting, and  $r = .45$  for volunteering and voting ( $p$ ’s  $< .001$ ).

## Results and Discussion

The effects of the DTR, reframe-only, and disrupt-only procedures and NFCC on the perceived ambiguity, attitude, and behavioral compliance measures are presented in table 1. As table 1 indicates, the DTR technique was effective in

influencing perceived ambiguity, attitudes, and compliance when NFCC was high.

**Perceived Ambiguity.** We began by submitting perceived ambiguity to a hierarchical regression analysis with DTR, NFCC, and the DTR  $\times$  NFCC interaction as predictors. The main effect terms were entered in step 1, and the interaction term was entered in step 2. Prior to analysis, we centered the NFCC scores by setting the mean to zero. Centering reduces multicollinearity among the main effect and interaction terms (Cohen et al. 2003). Effects coding was used for the DTR manipulation (DTR = 1, reframe only = 0, and disruption only = -1). This analysis showed that there was no main effect for NFCC ( $b = -.027$ , NS) but that there was a main effect for DTR ( $b = -.999$ ,  $p < .01$ ). Most important, the DTR  $\times$  NFCC interaction was significant ( $b = -.053$ ,  $p < .01$ ). To decompose the interaction, a median split was performed on NFCC scores. When NFCC was high, perceived ambiguity was greater in the disrupt-only condition ( $M = 14.55$ ) than in the reframe-only ( $M = 11.46$ ) conditions ( $t(131) = 2.83$ ,  $p < .01$ ). Perceived ambiguity tended to be greater in reframe-only ( $M = 11.46$ ) than in DTR ( $M = 10.61$ ) conditions, but this effect was nonsignificant ( $t < 1$ ). When NFCC was low, however, the DTR manipulation had no effect on perceived ambiguity ( $p$ 's  $> .20$ ). This pattern suggests that, when NFCC was high, the disruption manipulation was successful at increasing ambiguity and the reframing was successful at decreasing ambiguity.

**Attitudes.** The same hierarchical regression analysis was performed on attitudes. Again, NFCC scores were centered and effects coding was used. This analysis revealed that there was no main effect of NFCC on attitude ( $b = -.105$ ,  $p = .19$ ). The DTR main effect was significant ( $b = 4.56$ ,  $p < .001$ ). Most important, the DTR  $\times$  NFCC interaction was significant ( $b = .143$ ,  $p < .02$ ). To decompose the interaction, a median split was performed on NFCC scores. When NFCC was high, more favorable attitudes toward the tuition increase were formed in the DTR condition ( $M = 28.22$ ) than in the reframe-only condition ( $M = 20.69$ ,  $t(131) = 3.77$ ,  $p < .001$ ). In addition, more favorable attitudes were formed in the reframe-only condition ( $M = 20.69$ ) than in the disrupt-only condition ( $M = 14.25$ ,  $t(131) = 3.22$ ,  $p < .01$ ). When NFCC was low, however, the DTR technique was no more effective than the reframe-only technique ( $p > .20$ ) but was more effective than the disrupt-only technique ( $t(131) = 2.20$ ,  $p < .05$ ). Overall, the results show that the DTR technique was more effective as NFCC increased. As table 1 indicates, similar patterns and statistical outcomes were found on the behavioral compliance measures.

**Mediation Analyses.** Based on the recommendation of Baron and Kenny (1986), a series of regression analyses were performed to test for mediation. Regression analyses showed that the DTR  $\times$  NFCC interaction term predicted attitudes ( $b = .135$ ,  $p < .03$ ) and perceived ambiguity

( $b = -.052$ ,  $p < .02$ ). When the DTR  $\times$  NFCC interaction term and perceived ambiguity were entered simultaneously in the regression model predicting attitudes, perceived ambiguity was significant ( $b = -.604$ ,  $p < .02$ ), and the effect of the DTR  $\times$  NFCC interaction term was reduced to marginal significance ( $b = .154$ ,  $p < .08$ ). A Sobel test revealed that the mediational pathway from the DTR  $\times$  NFCC interaction to attitudes through perceived ambiguity was marginally significant ( $Z = 1.78$ ,  $p < .07$ ). This pattern of results suggests that perceived ambiguity partially mediates the effectiveness of the DTR technique. Stronger results might be observed if it were possible to develop an online measure of perceived ambiguity that tracks changes in perceived ambiguity over time.

## GENERAL DISCUSSION

This research tests the effectiveness of the DTR technique, a relatively new technique designed to reduce resistance to persuasion. The disruption increases ambiguity, and the subsequent reframing removes the ambiguity. Because ambiguity aversion is greater among consumers high in NFCC, these individuals are more susceptible to the DTR technique. Experiment 1 shows that the DTR technique increases retail sales in a supermarket setting. Experiment 2 shows that the DTR technique increases the willingness to pay to join a student interest group, especially when NFCC is high. Experiment 3 shows that the DTR technique increases student support for a tuition increase, particularly when NFCC is high. The moderating influence of NFCC in the effectiveness of the DTR technique was found in field and laboratory experiments, using the brief and the full NFCC scales, and across Dutch and American consumers. Furthermore, perceived ambiguity was found to play a mediating role in the DTR effect.

This research extends our understanding of the factors that moderate and mediate the effectiveness of the DTR technique. Davis and Knowles (1999) suggested, but failed to test, two possible explanations for the DTR effect. The first explanation was based on Milton Erickson's (1964) work on the use of confusion to break down resistance to clinical hypnosis. Many of Erickson's clients exhibited an approach-avoidance conflict in which they both wanted to be hypnotized because they thought this could help and did not want to be hypnotized because they had misgivings about hypnosis. Erickson (1964) used several different confusion techniques (e.g., unusual speech patterns, unusual facial and motor movements) to occupy the attention of clients, reduce resistance to hypnotic suggestions, and increase suggestibility. His techniques are used by sales professionals who are concerned about approach-avoidance conflict in consumers who want to use a product or service but do not want to spend the time, money, or effort required to do so (Moine and Lloyd 1990). Presumably, confusion reduces resistance and increases susceptibility to subsequent requests. However, confusion alone appears to be insufficient for increasing compliance as the disruption-alone conditions were ineffective (compared to DTR conditions) in

all three experiments conducted by Davis and Knowles (1999) and the present research.

Our results are consistent with a modified version of Erickson's confusion hypothesis. Presenting a message that increases confusion or ambiguity and then immediately following up on this message with a second message that reduces ambiguity can increase compliance but only for consumers who are high in NFCC and who are therefore averse to ambiguity. Interestingly, Erickson has developed many techniques for increasing ambiguity, including unusual speech patterns, the use of nonsequiturs, and unusual facial and motor movements. It would be useful to test the effectiveness of each of these techniques using the DTR paradigm. In a recent chapter, Knowles and Linn (2004) report the results of an unpublished study in which the DTR technique was used to sell "mouthpaste." Response latency analyses showed that the term "mouthpaste" was more disruptive than the term "toothpaste" in a 30-second advertisement.

The DTR technique could also be implemented using technical jargon. Salespersons who sell high-tech products (e.g., plasma TVs, computers) routinely use technical jargon that is likely to confuse many consumers. Salespersons who confuse consumers using technical jargon and then unconfuse them using appropriately reframed messages may be particularly effective, especially when they apply this technique to consumers who are high in NFCC. Similarly, confusing high-NFCC consumers with extensive product assortments and then reducing ambiguity by reducing the set of products that suit the consumers' individual needs may be effective.

The second explanation offered by Davis and Knowles (1999) is based on action identification theory (Vallacher and Wegner 1985, 1987), which suggests that people can think about any behavior in terms of high-level representations that focus on abstract goals and implications of behavior or in terms of low-level representations that focus on concrete details and specific motor movements (see also Trope and Liberman 2003). For commonly performed behaviors, such as eating cereal or drinking coffee, subordinate high-level representations are used, such as "reducing hunger or thirst," "getting nutrition," "getting energized" or "promoting my caffeine habit." When commonly performed behaviors are disrupted, however, behaviors are reframed in terms of subordinate low-level representations that focus on specific motor movements.

For example, Vallacher and Wegner disrupted participants who were eating cereal by asking them to use chopsticks and participants who were drinking coffee by asking them to use an extremely heavy mug. When disrupted, participants described their actions in low-level terms, such as "moving my hands," "chewing," and "swallowing" for eating cereal and "lifting a cup to my lips," "drinking," and "swallowing" for drinking coffee. In theory, low-level representations facilitate the performance of difficult or unusual behaviors. Presumably, disruption encourages people to think about a requested action in lower-level terms, and this increases the likelihood of performing the requested action.

Our results provide little support for the mediating role of action identification. The theory suggests that changes in the level of abstraction at which people construe information may increase compliance. However, consumers who are high in NFCC are more likely to freeze on their initial perspective and are less likely to change their perspective relative to consumers who are low in NFCC. Hence, action identification theory suggests that the DTR technique should be more effective as NFCC decreases because low-NFCC consumers are more likely to adopt new perspectives and new levels of abstraction, but our studies found the opposite result.

Our findings complement those of Fennis et al. (2004) who showed that, consistent with the implications of the elaboration likelihood model (e.g., Petty and Wegener 1999), disruption produces distraction and this reduces the ability to generate counterarguments. Distraction increases persuasion when the message arguments are weak and decreases persuasion when the message arguments are strong (Harkins and Petty 1981; Petty, Wells, and Brock 1976). Fennis et al.'s (2004) thought-disruption hypothesis suggests that disruption decreases the ability to generate counterarguments and increases the effectiveness of reframing. Our results suggest that Fennis et al.'s (2004) results are more likely to be observed when NFCC is high rather than low.

Finally, many theories of influence support a matching hypothesis, which suggests that persuasion will be maximized when the characteristics of a persuasive message match or are similar to the characteristics of the message recipient (e.g., Fabrigar and Petty 1999), especially if the message contains strong arguments (Petty and Wegener 1998; Wheeler, Petty, and Bizer 2005). In the present research, we applied the matching logic to the study of the DTR technique in an attempt to shed new light on the differential effectiveness of DTR manipulations for different kinds of people. Again, compared to low-NFCC individuals, individuals high in NFCC have a lower tolerance for ambiguity and are more highly motivated to reduce ambiguity when it arises. Thus, we predicted that the DTR technique, which heightens ambiguity via a disruptive message and then satisfies the motivation to reduce ambiguity by reframing the message, would essentially provide a matched situation for individuals high in NFCC. That is, it would appeal to the inherent motivations and characteristics of high- but not low-NFCC individuals. Individuals low in NFCC have a higher tolerance for ambiguity and, consequently, the disruptive message would fail to affect them to the same degree. The results of the current research are consistent with this interpretation.

Future research should examine the generality of our results to other consumer segments and to other products and services. Although experiment 1 examined "real" consumers in a "real" supermarket setting, generalizing to large-scale markets is difficult because this requires a large sales force and different sales representatives are likely to differ in the ability to implement the DTR technique effectively. Consumer and contextual heterogeneity also increases with

scale. Future research should examine sales representatives' individual differences in executing the DTR technique. In addition, future research should investigate different procedures for implementing the DTR technique. Instead of using confusing monetary manipulations, other techniques could be examined—such as confusing technical jargon, confusing terminologies (e.g., mouthpaste), confusing product assortments, and confusing behavioral disruptions. It would also be useful to examine the relative effectiveness of the DTR technique to other influence techniques in different consumer contexts.

In our view, future research should also continue to focus on mediation and moderation. Mediation is important because it specifies how an influence technique affects compliance, and this helps managers to identify potentially useful new influence techniques that are linked together due to their similar influence on a particular mediator variable (Kahn, Luce, and Nowlis 2006). Moderation is important because it specifies the boundary conditions or limits of an influence effect, and this helps managers to determine when a particular influence technique is most effective (Kahn et al. 2006).

Theoretically, the effective use of the DTR technique should increase market share and this should increase profit margin. However, the link between share and margin is merely correlational, not causal (Jacobson and Aaker 1985). Consequently, it is unclear if managers should focus on share or on some third variable (e.g., product quality, firm size and resources) that influences share and margin. A causal explanation would require knowledge of the mediating chain of events that link share to margin and knowledge of the variables that moderate the strength of the share-margin relationship.

In closing, it is noteworthy that much of the research conducted on influence techniques has focused on alpha strategies, or strategies that supply reasons for accepting a decision alternative or a particular course of action (e.g., Cialdini 2001). Recently, some attention has shifted toward omega strategies, or strategies that reduce resistance to persuasion (Knowles and Linn 2004; Knowles and Riner, forthcoming; Sherman, Crawford, and McConnell 2004). Many consumer decisions are characterized by ambivalence because consumers want to enjoy owning and using various products but also want to avoid the costs of ownership (e.g., transaction costs, decision costs, switching costs, the costs of learning how to use a product effectively). The DTR technique is an important omega technique because it reduces resistance to influence via disruption or confusion and increases susceptibility to influence via reframing or “unconfusing.” Influence techniques that create a need and subsequently fulfill the need are likely to be effective in a wide variety of settings.

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