The fallout from French nuclear testing in the South Pacific
A longitudinal study of consumer boycotts

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Abstract

Purpose – The frequency and sophistication of consumer boycotts continue to increase from already high levels. Surprisingly, only limited research in marketing has investigated this topic. The purpose of this paper is to provide a strategic analysis of an actual consumer protest with implications for better managerial decisions.

Design/methodology/approach – The animosity model of consumer purchase behavior was employed in two longitudinal studies to investigate an ongoing marketplace protest – Australian consumers’ boycott of French products. Study 1 was carried out while France was engaged in nuclear testing in the South Pacific. Study 2 was carried out 1 year after the resolution of the conflict.

Findings – Results from Study 1 show that Australian consumers’ animosity toward France was negatively related to their willingness to purchase French products. Consistent with a key prediction from the animosity model, this effect was independent of evaluations of French product quality. The findings from Study 2 show that, a year after the cessation of nuclear testing, Australian consumers continue to have strong negative affect toward France, which in turn, had negative marketplace consequences for French products.

Originality/value – While the results from Study 1 show that consumer anger over nuclear testing did not necessarily lead to the denigration of the quality of French goods, the second study indicates that, beyond the duration of the official protest, there may be repercussions for products associated with the offending party. Accordingly, managers should consider implementing communications programs which, over time, effectively reinforce the quality of their products in the minds of protesting consumers.

Keywords International business, Consumer behaviour, Brands

Paper type Research paper

Instructions from the home office were to maintain strong consumer advertising, but there was hysteria out there. And while we had a bit of warning (about the nuclear tests) no one realized the backlash. Had we realized what was to happen, we would have never spent the funds…

We stopped all advertising, both print and broadcast, but the media would not let go of the issue. It was a difficult situation…our customers were being victimized…

The authors would like to thank Jason Deegan, Andrew John, and Richard Netemeyer for their assistance at various stages of this research. This project was funded by the School of Business Research Fund at Bond University, Australia, the University of Chicago Graduate School of Business Research Fund, and the Research and Development Department at INSEAD.
We wanted to take an aggressive approach and state publicly that ‘we do not endorse the tests’, but that was not on. So we had to just sit back and take our lumps.

Quotes from three Australian marketing managers for different French automobile manufacturers in response to Australian consumers’ outrage in the wake of France’s 5th September 1995 detonation of a nuclear device in the South Pacific, the first of six tests in the region.

Introduction

Firms today show considerable sophistication in the cultivation and management of positive corporate and product images (Arnott, 1994; Bloom et al., 1995; Brown and Dacin, 1997; Drumwright, 1996; Varadarajan and Menon, 1988; Menon and Menon, 1997). Yet, no matter how careful its planning and implementation, a firm may find itself mired in an unforeseen marketing crisis stemming from a controversial event external to the firm and its marketing activities. And though crisis management has long been a focus of inquiry in public relations (Sturges et al., 1991; Walker, 1988), and more recently in marketing (Kitchen and Moss, 1995; Liss, 2002), the three quotes above serve as a reminder that consumer protest behavior is an area of strategic and tactical uncertainty. Managers simply do not fully understand consumer protests and boycott behavior. This reflects the fact that, in both marketing and in the behavioral sciences generally, there has been little formal empirical research brought to bear on this issue.

The present research is comprised of two studies that provide a conceptual and longitudinal analysis of consumer protest behavior. Specifically, we seek to understand the evaluative judgments of individuals in a boycott situation. Both analyses were conducted in the context of Australian consumers’ reactions to France’s nuclear testing in the South Pacific. Study 1 was carried out during the height of the controversy early in 1996. Study 2 was conducted 1 year later, shortly after France’s decision to cease nuclear testing in the region. The results provide insight to the following questions: What is the effect of a controversial act committed by a foreign country on consumers’ perceptions of products associated with, or made by, firms from that nation? What role does perceived efficacy of the consumer protest play in predicting boycott participation? and how do consumers’ perceptions change once the controversy has ended?

The importance of studying boycotts

Marketers will benefit from a fuller exploration of the boycott phenomenon for a number of reasons. First, the use of boycotts as a coercive marketplace tactic is already extensive and is expected to increase (Friedman, 1991; Gelb, 1995; Sen et al., 2001). For example, Jackson and Schantz (1993) report that in 1990 more than 300 market boycotts were organized and implemented, a sharp rise from previous years. This number has increased to over 800 (Fergeson, 1997) as boycott organizations become more sophisticated in implementing their protest activities (see, for example, the web sites www.boycotts.org; www.planetark.org; www.unionlabel.org; www.coopamerica.org/boycotts). Furthermore, increasing numbers of consumers are supporting organizations with explicit societal and political agendas (Fergeson, 1997; Friedman, 1991, 1999; Gelb, 1995). Concurrently, many consumers are seeking
products from firms that advocate particular positions on social and political issues (Friedman, 1999; Lewis and Mackenzie, 1999; Lewis et al., 1998).

Another motivation for studying consumer boycotts involves the serious threat they pose to the firm’s ongoing marketing activities. In addition to a direct negative effect on sales (Miller and Sturdivant, 1977; Patel, 1996), the boycotted firm faces other potentially debilitating consequences[1]. Boycotts severely disrupt the planning, implementation, and analysis of the firm’s current and routine marketing activities. This disruption often stems from management uncertainty as to how to react when faced with a protest (Liss, 2002; Miller, 2000). Jackson and Schantz (1993) report that fewer than 60 percent of the Fortune 1,000 industrial companies and Fortune 500 service companies have in place crisis management plans to respond to a boycott (Liss, 2002). Any systematic response will, therefore, require that the firm redirect significant resources to crisis management activities. At the same time, a boycotted firm must contend with the deleterious effect of the protest on the morale of employees, suppliers, and other related publics (Barton, 1993; Pincus and Acharya, 1988).

**Conceptual background**

Despite their direct relevance to marketing, consumer protests have received the greatest attention in the areas of political science (Gelb, 1995; Laidler, 1913; Smith, 1990) and organizational behavior (Elsbach, 1994; Elsbach and Sutton, 1992; Ginzel et al., 1993). The relative dearth of empirical research in marketing is surprising since boycotts fundamentally disrupt (at least temporarily) the exchange relationship between the firm and its customers. The process of exchange is a cornerstone of contemporary marketing theory and practice (Bagozzi, 1975; Houston and Gassenheimer, 1987), and factors that have a significant and deleterious effect on this key dynamic merit focused inquiry. This realization can be seen in the renewed interest in consumer complaint behavior among researchers and practitioners in marketing (Hui and Au, 2001; Stephens and Gwinner, 1998; Tax and Brown, 1998)[2].

Within marketing, Friedman (1991) identifies two main purposes for boycotts: instrumental and expressive (Friedman, 1999). An instrumental boycott aims to coerce the target to change a disputed policy. Goals here are often stated in precise and measurable ways, such as the lowering of prices, or the signing of union contracts for workers. Expressive boycotts, by contrast, are a more generalized form of protest that communicates consumers’ displeasure with the actions of the target. Typically, this form of protest is characterized by a vague statement of goals and may simply vent the frustrations of the protesting group.

The target of a boycott can be either directly or indirectly related to the offending party (Friedman, 1991, 1999; Smith, 1990). In the case of a direct boycott target, consumers find the policies of a particular firm objectionable. In reaction, consumers withhold consumption of a specific branded product, or all products, produced by the firm. In this case, the firm and its managers have direct control over the contentious policies. Some well-known examples include the refusal of many consumers to purchase Nestle’s products following the firm’s infant formula debacle (Post, 1985; Smith, 1990), and the more recent controversy surrounding Nike’s overseas employment practices (Solomon, 1998).

In an indirect boycott, the targeted firm serves as a surrogate for the party whose actions are objectionable. Consumers in this situation manifest their social activism by
rejecting goods from firms that are perceived to be associated with the offending party. An indirect boycott converts an issue that is external to the marketplace into one that is accessible to the consumer. The rationale is that economic and image pressure (i.e. lost sales and negative publicity) brought to bear on the target can increase the pressure on the offending party to change its policies (Friedman, 1991, 1999; Garrett, 1987).

Indirect boycotts are often triggered by a controversial international event: the policies and actions of a foreign country are objectionable to a group of consumers and the ensuing protest is visibly played out in the international marketplace. France’s policy of nuclear testing in the South Pacific is a case in point. In the absence of direct access to the French government, protesters from countries throughout the region (Australia, New Zealand, Japan, Korea, and others) pursued their political and environmental objectives by identifying indirect boycott targets (Business Korea, 1995; The Economist, 1995; Henry, 1995; Rees and James, 1995; Ueda, 1995). These targets were numerous and varied, and included French firms (for example, Air France or Peugeot), all products perceived to be made in France, and even enterprises with only a spurious association to France (for example, locally owned French bakeries and restaurants).

**Individual perceptions and boycotts**
Existing conceptual frameworks of boycott categorization (Friedman, 1991, 1999; Smith, 1990) are typically based on the goals of the group that has called for the action. The organization and its leadership serve as the unit of analysis, and form the basis for categorizing a boycott as expressive or instrumental. Garrett (1987) contends that boycotts involve an “organized” effort (by a single group or by a number of groups simultaneously) to force a target to modify its policies. While this characterization of boycotts is appropriate in many circumstances, it overlooks the role of individual-based behavior in marketplace protests.

The present research, by contrast, focuses on the consumer as the unit of analysis. Specifically, we examine the evaluative processes that accompany individual-based boycott behavior. This shift in focus is significant for three reasons. First, an organization may call for a boycott, but the success or failure of the protest largely depends on an individual’s willingness to participate. Second, consumers may have different motivations for boycott participation (Sen et al., 2001; John and Klein, 2003). Some may desire to change the actions of the target (instrumental motivations), while others may choose to participate simply to express their indignation (expressive motivations). A single individual might boycott for both instrumental and expressive reasons.

A third reason is that not all boycotts are organizationally based. An individual’s decision to participate in a boycott may be a form of protest that is independent of any direct affiliation with a formal organization. In Australia, for example, consumer outrage over France’s nuclear testing was less a formal organized effort than a spontaneous and vociferous public response to France’s actions. The indignation of Australians was very much a grass roots phenomenon, described in one report as a “...wave of anti-nuclear sentiment sweeping the country” (Henry, 1995). This is not to say that organizations, such as Greenpeace, did not call for and encourage protests. They did. However, the mass public protest in Australia (and other countries in the
region) was so immediate and widespread that it reflected an overwhelming response on a scale not likely to be achieved by any particular organization or group.

The present research

The two studies reported here examine an indirect boycott in which Australian consumers refused to purchase French goods in the wake of France’s nuclear testing in the South Pacific. French goods are defined here as any product offering perceived by participants to be either directly or indirectly made in, or somehow associated with, France. The animosity model of consumer purchase behavior (Klein et al., 1998; Klein, 2002) is used to examine consumers’ evaluative and decision processes, both during and after the protest. This framework has two key tenets:

1. animosity – defined as antipathy related to previous or ongoing political, military, economic, or diplomatic events – will have a direct, negative effect on consumers’ purchase behavior; and

2. the effect of animosity on consumer’s purchase behavior will be independent from their product judgments.

The model is shown in Figure 1 and shows that, in certain circumstances, consumers withhold consumption of products or brands not because of concerns about quality or value, but because these goods are associated with actions that the consumer finds objectionable.

The fundamental premise of the animosity model diverges from traditional behavioral frameworks in marketing, where the relationship between consumers’ product judgments and their purchase behavior is central. The model also represents a related departure from the traditional research framework of country of origin studies. Much of this work examines how a country’s image (concerning, for example, workmanship, innovation, and technological advancement) is projected on to the features of products produced by that country (Bilkey and Nes, 1982; Papadopoulous and Heslop, 1993). In general, this research has found that images of the manufacturing nation have a

![Figure 1. The animosity model of consumer purchase behavior](image-url)
substantial impact on consumers’ evaluations of product quality (Bilkey and Nes, 1982; Han, 1989; Papadopoulos and Heslop, 1993; Hong and Wyer, 1989; Maheswaran, 1994).

In contrast, the animosity model does not focus on consumers’ quality judgments, as in the typical country-of-origin paradigm, but on their hostility toward a target nation and their associated willingness to purchase products from that nation. Klein et al. (1998) showed that animosity toward a target country is unrelated to consumers’ judgments of product quality. This result does not contradict the vast literature of country-of-origin effects; instead, it demonstrates that anger or hostility toward a country does not necessarily lead to the denigration of product quality. For example, Klein et al. (1998) found that almost 60 years after World War II, many Chinese consumers remain extremely angry with Japan, yet these same individuals acknowledge the superior quality of Japanese goods.

In this investigation, a longitudinal analysis of consumer protest behavior is undertaken in the context of a contemporary and dynamic controversy – France’s nuclear testing in the South Pacific. Study 1 applies the animosity model to the domain of consumer boycotts and was conducted while France was carrying out tests. Study 2 was administered 1 year later, after France had agreed to cease all further nuclear testing in the region. This second study extends the animosity framework and allows us to develop a new model of boycott participation that includes the construct of consumer efficacy – the belief that boycotts can be effective in implementing change.

**Study one**

*Hypotheses*

In the present research, animosity toward France is operationalized as anger due to French nuclear testing in the South Pacific. Several hypotheses are proposed based on the model shown in Figure 1.

*H1.* Animosity toward France will have a direct, negative impact on attitudes toward buying French products, holding constant product judgments and consumer ethnocentrism.

*H2.* Animosity toward France will influence buying independently of product judgments. Thus, animosity will have no effect on judgments of French product quality.

The model includes the construct of consumer ethnocentrism, which measures consumer beliefs concerning the appropriateness and morality of purchasing foreign-made goods (Shimp and Sharma, 1987). Thus, we measure the effect of animosity on attitudes toward buying French goods while controlling for consumers’ beliefs about buying foreign products in general. This allows us to rule out the explanation that the avoidance of French goods is a specific manifestation of a broader phenomenon – aversion to all foreign goods.

Previous research has found that consumer ethnocentrism is negatively related both to evaluations of product quality and to the willingness to buy foreign products (Klein et al., 1998; Netemeyer et al., 1991; Shimp and Sharma, 1987). We, therefore, hypothesize that:

*H3.* Consumer ethnocentrism will be negatively related to judgments of French product quality.
H4. Consumer ethnocentrism will be negatively related to the willingness to buy French products.

**Method**

**Participants.** Data were collected in February 1996 from a random sample of adult consumers living in Gold Coast, Australia. The Gold Coast is Australia’s seventh largest city with a population of 330,000. The sample was 60.8 percent female with a mean age of 43.1.

**Procedure.** Using area probability sampling and the drop-off/pick-up technique, respondents were contacted in-person at home by trained interviewers and asked to complete the self-administered questionnaire[4]. Of 507 potential respondents approached, 268 agreed to participate, a response rate of 53 percent[5]. Seven questionnaires contained substantial missing data and were eliminated from further analyses, yielding a final sample of 261.

**Measures.** Respondents were asked to indicate their agreement (on a 1 “strongly disagree” to 7 “strongly agree” scale) with statements concerning four constructs (listed in the same order as they appeared in the survey):

1. judgments of French products;
2. willingness to buy French products;
3. consumer ethnocentrism; and
4. animosity toward France (the specific items employed to measure each construct is presented in the Appendix).

Higher ratings indicated higher judgments of quality, greater willingness to buy, higher consumer ethnocentrism, and greater levels of animosity.

As noted in the Appendix, measures of product judgments and willingness to buy were culled from previous studies (Darling and Arnold, 1988; Darling and Wood, 1989) and included the following attributes: workmanship, technological advancement, reliability, design, and value for the money. Willingness to buy French products was measured next, and included items such as “I do not like the idea of owning French products”, and “Whenever available, I would prefer to buy products made in France”.

Respondents then answered the 10-item CETSCALE (Shimp and Sharma, 1987; Netemeyer et al., 1991) to assess beliefs about buying foreign products. In the fourth part of the survey, participants responded to several items developed specifically for this study to measure animosity toward France (for example, “I will never forgive France for its nuclear testing in the South Pacific”, “France’s recent nuclear testing was an act of aggression in the South Pacific”, “I feel angry toward France”). A complete list of items is presented in the Appendix. The final part of the survey solicited respondent demographics.

**Results**

**Structural equations model.** The measurement properties of the model were assessed through structural equations modeling. Each construct was indicated by its respective items (Appendix) and all constructs were allowed to correlate with one another. This measurement model demonstrated strong fit: $\chi^2(146) = 199.11$, $p < 0.01$, RMSEA = 0.035, CFI = 0.97, and NNFI = 0.97[6]. Each factor showed high levels of
both construct reliability and average variance extracted (all values exceeded 0.70 and 0.50, respectively, as suggested by Hair et al., 1995; Table I).

Structural equation modeling was used again to test the full model, including the hypothesized paths between constructs. The results are shown in Figure 2. Table II shows the factor correlations. The full model exhibits strong fit: $\chi^2 (147)=200.35$, $p < 0.01$, RMSEA = 0.034, CFI = 0.97, and NNFI = 0.97, and accounts for 56 percent of the variance in buying. (If animosity toward France is removed from the model, the explained variance in willingness to buy drops to 29 percent.) As predicted by H1, animosity toward France was a significant negative predictor of the willingness to buy French products ($b = -0.59$, $t = -6.99$, $p < 0.001$). Since no path was specified between animosity and product judgments, the high levels of model fit demonstrate support for H2. As a further test, a path was added between animosity and product judgments.

![Diagram of consumer behavior model](image-url)
judgments (depicted by the dotted line in Figure 2). As expected, the path coefficient was not significant \((b = -0.09, t = -1.12, \text{n.s.})\). As predicted by \(H3\), consumer ethnocentrism was a significant negative predictor of product judgments \((b = -0.29, t = -3.94, p < 0.001)\), but contrary to \(H4\), the CETSCALE was not a significant predictor of willingness to buy \((b = -0.08, t = -1.25, \text{n.s.})[7]\).

**Discussion**

The findings from Study 1 show that consumer anger can be measured and predicts buying intentions during a boycott. As hypothesized, Australian consumers’ animosity toward France was negatively related to their willingness to purchase French products. Consistent with a key prediction from the animosity framework, this effect was independent of evaluations of French product quality. Australian consumers who chose to express their hostility towards France by withholding consumption of French-made goods did so without denigrating the quality of French products.

Also noteworthy is the finding that animosity toward France affected consumers’ marketplace decisions with consumer ethnocentrism held constant. This enables us to rule out a possible competing explanation for the study results, namely that the aversion to the purchase of French products is merely a specific manifestation of a more general tendency to avoid all foreign goods. It is not.

The constructs of animosity toward France and consumer ethnocentrism each had distinct consequences within the model. Scores on the CETSCALE were found to be negatively related to consumer evaluations of French product quality. This is a robust finding consistent with the results from previous studies that have employed the construct of consumer ethnocentrism (Klein \textit{et al.}, 1998; Netemeyer \textit{et al.} 1991; Shimp and Sharma, 1987; Sharma \textit{et al.}, 1995). However, contrary to expectations and the findings from these previous studies, consumer ethnocentrism was unrelated to the willingness to buy French products. Animosity showed just the opposite effects: this construct was unrelated to product judgments but was a significant predictor of consumers’ willingness to buy French goods. In sum, highly ethnocentric consumers denigrated the products produced by the target, whereas consumer anger toward France had no effect, positive or negative, on evaluations of product quality. Animosity, however, did reduce consumer willingness to purchase French goods.

**Study two**

The findings from Study 1 provide managers and researchers with a cross-sectional snapshot of consumers’ evaluative processes during an actual boycott. Questions remain, however, as to the marketplace effects of the controversy in the longer term. While boycotts may have an official duration of weeks or even months, managers whose firms serve as a direct or indirect boycott target may find it useful to explore the long-term effects of consumer animosity. Presumably, consumers participate in a boycott, at least in part, to achieve certain objectives such as a change in the policies of the target. Even though a boycott can be viewed as instrumental because it has a specific goal, many consumers may participate for expressive reasons: they are angry, and their refusal to purchase a firms’ products is an expression of this anger. Klein \textit{et al.} (1998) found that consumer animosity in China stemming from World War II continues to haunt Japanese firms some 60 years after the fact, even though there is no official boycott of Japanese goods in China.
Shortly after the administration of Study 1, France announced it would cease all further nuclear testing in the South Pacific[8]. If the boycott of French goods is viewed as instrumental, then it was successful: the goal was attained. But it is entirely possible that anger toward France remains, and that some consumers will continue to boycott for expressive reasons.

Study 2 provides a longitudinal analysis of consumer protest behavior, investigating whether Australian consumers forgave France and returned to their previous purchase patterns for French products or whether lingering animosity continues to affect their marketplace decisions. In addition, we examine a number of issues not fully explored in the first study.

Most notably, Study 2 goes beyond the measurement of attitudes toward the purchase of French products to an assessment of actual boycott participation. A variant of the animosity model, incorporating boycott participation, is developed and tested (hereafter, the boycott model, refer Figure 3). As in the animosity model, we test whether or not anger is a determinant of consumers’ purchase decisions. But instead of attitudes toward buying, the new model predicts actual (reported) boycott participation. We operationalize boycott participation as the number of product categories in which a consumer ceases to buy French goods. Consumers can exhibit a range of behaviors when choosing to withhold consumption of French products. Some may stop purchasing all products associated with France, regardless of the product category. Others may ignore the boycott and continue to purchase the same products as they have in the past. Still others may be selective and choose to stop purchasing French goods in only certain but not all categories. Thus, we asked consumers whether they had typically purchased French products from a variety of categories (wine, champagne, perfume, cosmetics, jewelry or apparel) before the nuclear testing began. We then asked them to indicate in which categories they had purchased French products subsequent to the nuclear testing. Boycott participation was operationalized as the number of categories in which French goods were purchased before the boycott minus the same once the boycott began.

As Figure 3 shows, the boycott model tests whether animosity, prior purchase (the number of categories from which French products had been purchased before

![Figure 3. The boycott model](image-url)
nuclear testing began), product judgments and consumer efficacy predict boycott participation. Prior purchase is included in the model because those who purchased French goods across many categories before the boycott are in a position to show a higher degree of boycott participation. Prior purchase, in turn, is expected to be a function of consumer ethnocentrism and product judgments; those who are lower in consumer ethnocentrism and who perceive French product quality as high are more likely to have purchased French goods before the boycott.

As Figure 3 shows, the boycott model tests whether animosity, prior purchase, product judgments and consumer efficacy predict boycott participation. Prior purchase is included in the model because those who purchased French goods across many categories before the boycott are in a position to show a higher degree of boycott participation. Prior purchase, in turn, is expected to be a function of consumer ethnocentrism and product judgments; those who are lower in consumer ethnocentrism and who perceive French product quality as high are more likely to have purchased French goods before the boycott. Consumer ethnocentrism is not expected to predict boycott participation directly, given that its impact should be captured in its effect on prior purchase. Judgments of French product quality, however, are expected to have a direct negative effect on boycott participation. Those who are enamored with French products should find the avoidance of these goods to be particularly costly, and thus may be less likely to participate in a boycott.

The boycott model also includes the construct of consumer efficacy, defined here as the belief by consumers that a boycott is an effective mechanism for coercing a target to change an objectionable policy (for example, “By refusing to buy French goods, Australian consumers can have an effect on the policies of the French government”, refer Appendix). Considering Friedman’s (1991) categorization of boycotts as instrumental or expressive, belief in the efficacy of a boycott suggests that the individual holds instrumental motivations for participation; i.e. the boycott goals are achievable.

The boycott model tests whether those consumers who are high in consumer efficacy are more likely to participate in a boycott than those who believe that boycotts are not likely to be successful in implementing change. Further, the relative impact of efficacy versus animosity on boycott participation indicates the degree to which participating consumers are motivated by instrumental or expressive goals. If animosity, but not efficacy, is a strong predictor of boycott participation, then the protest would appear to be expressive in nature. In other words, consumers in this case do not expect that their actions will alter an objectionable policy. Instead, an expression of anger is driving their decision to boycott.

**Hypotheses**

By design, the administration of Study 2 was carried out 1 year after France announced that it would cease all further nuclear testing in the South Pacific. Given that the French government had conceded and the controversy had ended, it was expected that this decision should lead to a decrease in animosity and an increase in the willingness to buy French goods. Accordingly, we propose:

**H1.** The level of animosity toward France will be lower in Study 2 than in Study 1.
**H2.** Consumers’ willingness to buy French products will be higher in Study 2 than in Study 1.

Evaluations of French product quality were not expected to change between the two studies. Thus:

**H3.** There will be no differences in judgments of French products between Study 1 and Study 2.

*The animosity model*

In order to examine possible longitudinal changes in relationships between constructs, the model employed in Study 1 was again tested using the data from Study 2. While animosity was expected to decrease, and willingness to buy increase, no specific predictions were made concerning changes in the paths (relationships among constructs) between the two studies. It is possible, of course, that anger would diminish to such a level that it no longer drives purchase decisions. Testing the animosity model in Study 2 allows us to investigate this possibility.

In general, it was expected that lingering animosity would continue to affect willingness to buy French goods even though this anger might be less vociferous than during nuclear testing. Animosity was expected to be unrelated to product judgments and consumer ethnocentrism was expected to be a negative predictor of both product judgments and willingness to buy.

*The boycott model*

Study 2 extends our understanding of consumer protest behavior by developing and testing the boycott model shown in Figure 3. A number of relationships are predicted among the constructs:

**H4a.** Animosity toward France will be a positive predictor of boycott participation.

**H4b.** Consumer efficacy will be a positive predictor of boycott participation.

**H4c.** Prior purchase will be a positive predictor of boycott participation.

**H5a.** Product judgments will be a negative predictor of boycott participation.

**H5b.** Product judgments will be a positive predictor of prior purchase.

**H6a.** Consumer ethnocentrism will be a negative predictor of prior purchase.

**H6b.** Consumer ethnocentrism will be a negative predictor of product judgments.

**H6c.** Consumer ethnocentrism will be unrelated to boycott participation.

**Method**

*Participants and procedure*

Data were collected from a random sample of Australian adult consumers using the same sampling frame and administrative procedure as in Study 1 (the drop-off/pick-up technique with trained interviewers). Of 919 potential respondents approached, 502 agreed to participate, a response rate of 55 percent. Twenty-five questionnaires contained substantial missing data and were eliminated from further analyses,
yielding a total sample of 477. It was necessary to solicit participation from a larger sample than in Study 1 because our analyses focused only on a subset of the completed surveys: those respondents who indicated an awareness that France had agreed to halt its nuclear testing in the region (n = 329, or 69 percent of the 477 completed surveys). The mean age of this subset was 43 and 52.2 percent were female. (Results of analyses conducted with the full sample of 477 were not notably different from the results reported below).

Measures
In a replication of Study 1, respondents completed the same questions concerning French product quality, the willingness to buy French products, consumer ethnocentrism and animosity toward France. They then indicated their agreement with items measuring boycott efficacy. Following this, respondents were asked if they had avoided French products once France began its policy of nuclear testing in the South Pacific. Respondents then indicated whether, before the onset of France’s nuclear testing in the South Pacific, they had purchased French goods from any of the following categories: wine, champagne, perfume, cosmetics, jewelry, and apparel (among the most common categories in which French goods are found in Australia). They then indicated whether they had purchased French products in these categories while the nuclear testing was ongoing, and whether they intended to purchase French products in these categories “over the next year or so”.

Results
Before we assess changes in the model results between Study 1 and Study 2, we examine whether or not the samples from the two studies are generally equivalent. A comparison of demographic variables between the two samples show that the mean age in both was the same (43 years old), and respondents in Study 1 had a slightly higher proportion of females (60.8 percent vs 52.2 percent); however, no relationship was found in Study 1 between gender and animosity, \( r = -0.064 \), n.s. Levels of education also were similar with 26.5 percent of respondents in Study 1 having at least 1 year of college compared to 27.8 percent in Study 2.

Changes in animosity toward France
In Study 1, animosity toward France had a mean rating of 5.49 (on a 7-point scale). In Study 2, this measure dropped to 4.80, \( t(588) = 5.24, p < 0.001 \), providing support for \( H1 \). However, animosity still remained relatively high, and significantly above the neutral point of 4.0, \( t(328) = 9.10, p < 0.001 \). As Figure 4 shows, animosity scores in the moderate range became more common in Study 2 compared to Study 1, primarily because the percentage of extremely angry consumers (scoring in the range of 6 or 7) decreased while the percentage in the moderate range (3-5.75) increased.

As hypothesized (\( H2 \)), there was an increase in the willingness to buy French products, from 3.36 in Study 1 to 3.89 in Study 2, \( t(588) = 4.06, p < 0.001 \). Product judgments, however, remained stable between the two studies (\( m = 4.18 \) and 4.27, respectively), \( t(588) = 1.02, \) n.s., providing support for \( H3 \). While no predictions were made concerning changes in the CETSCALE over time, consumer ethnocentrism decreased slightly from 4.77 in Study 1 to 4.43 in Study 2, \( t(588) = 2.54, p < 0.05 \).
The animosity model

The model tested in Study 1 (Figure 2) was put to the test again in Study 2. Table III gives the estimates of reliability and variance extracted for each construct, along with the construct means and standard deviations. Table IV shows the correlations between factors.

The measurement model for the four constructs, with all factors allowed to correlate with one another, demonstrated a good level of fit: \( \chi^2(146) = 329.96, p < 0.001, \) RMSEA = 0.06, CFI = 0.94, and NNFI = 0.93 (note that, in order to compare results with those from Study 1, efficacy was not included in this model). The general results of the structural equation modeling (Figure 5) were also similar to those found in Study 1. The model achieved good fit and accounted for 50 percent of the variance in buying: \( \chi^2(147) = 340.96, p < 0.001, \) RMSEA = 0.062, CFI = 0.93, and NNFI = 0.92.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Reliability estimate</th>
<th>Variance extracted</th>
<th>Mean (standard deviation)</th>
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<tbody>
<tr>
<td>Animosity model</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Product</td>
<td>0.82</td>
<td>0.47</td>
<td>4.27 (1.05)</td>
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<tr>
<td>Buy</td>
<td>0.80</td>
<td>0.47</td>
<td>3.89 (1.52)</td>
</tr>
<tr>
<td>Cetscale</td>
<td>0.89</td>
<td>0.64</td>
<td>4.43 (1.67)</td>
</tr>
<tr>
<td>Animosity</td>
<td>0.81</td>
<td>0.52</td>
<td>4.80 (1.60)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table III.</th>
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<tbody>
<tr>
<td>Boycott model</td>
</tr>
<tr>
<td>Study 2 reliability, variance extracted, and construct means (standard deviations)</td>
</tr>
<tr>
<td>Product</td>
</tr>
<tr>
<td>Cetscale</td>
</tr>
<tr>
<td>Animosity</td>
</tr>
<tr>
<td>Efficacy</td>
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Figure 4.
Animosity levels for Studies 1 and 2
(If animosity toward France is removed from the model, the explained variance drops to 32 percent.) As in Study 1, the path from animosity to willingness to buy was significant ($b = -0.53, t = -6.79, p < 0.001$) and the CETSCALE was a significant negative predictor of product judgments ($b = -0.25, t = -3.89, p < 0.001$). However, in contrast to Study 1 (but as originally predicted), the CETSCALE was a significant predictor of willingness to buy ($b = -0.23, t = -3.55, p < 0.001$).

A tenet of the animosity model is the independence of animosity and product judgments. As in Study 1, we tested this by adding a path from animosity to product judgments. Contrary to expectations, this path coefficient was found to be significant and more than twice as large as the same path coefficient in the first study ($b = -0.26, t = -3.27, p < 0.001$). This result represents a departure from the results of Study 1, as well as previous tests of the animosity model, and is discussed further below.

In summary, a year after France ceased nuclear testing, levels of animosity were lower (but still relatively high) and Australian consumers showed an increased willingness to buy French goods. As hypothesized, animosity continued to be a predictor of consumers’ willingness to buy French goods. However, in contrast to Study 1, the results of our second study suggest that Australian consumers who remained angry with France denigrated the quality of French goods.

<table>
<thead>
<tr>
<th></th>
<th>Product</th>
<th>Buy</th>
<th>Cetscale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buy</td>
<td>0.32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cetscale</td>
<td>-0.24</td>
<td>-0.53</td>
<td></td>
</tr>
<tr>
<td>Animosity</td>
<td>-0.32</td>
<td>-0.68</td>
<td>0.52</td>
</tr>
</tbody>
</table>

Table IV. Study 2 construct intercorrelations: animosity model

Figure 5. The animosity model (Study 2): Australian consumers and French products
The boycott model
Of the 329 respondents included in the above analyses, 250 (76 percent) indicated that, prior to the nuclear tests and the ensuing boycott, they had purchased French products. In order to focus on boycott behavior, only these respondents were included in the analyses that follow. Of these 250 respondents, 50 percent said that they avoided French goods after France began nuclear testing.

As mentioned above, respondents were asked if, prior to the nuclear testing, they had purchased French products in any of six categories. They were also asked if they had purchased French goods in these categories once testing began. On an average, respondents reported that, originally, they had made purchases in just over three of the categories (m = 3.12). After testing, this figure drops by more than half (m = 1.48), t(249) = 17.19, p < 0.001. We operationalize boycott participation as the number of categories in which respondents ceased purchasing French products after nuclear testing began.

The measurement model showed a good level of fit: χ²(157) = 323.70, p < 0.001, RMSEA = 0.059, CFI = 0.93, and NNFI = 0.91 (as before, all constructs were allowed to correlate with each other). Table III shows the estimates of reliability and average variance extracted for each of the constructs. Table V shows the intercorrelations between constructs[9].

The full model showed good fit: χ²(162) = 337.74, p < 0.001, RMSEA = 0.060, CFI = 0.93, and NNFI = 0.91, and accounted for 55 percent of the variance in boycotting (Figure 6). (If animosity toward France is removed from the model, this figure drops to 36 percent).

As predicted by H4a, H4b, and H4c animosity, efficacy, and prior purchase were all significant predictors of boycott participation (b = 0.46, t = 5.62, p < 0.001; b = 0.14, t = 2.17, p < 0.05; and b = 0.62, t = 7.01, p < 0.001, respectively). Contrary to expectations (H5a), product judgments were not a significant negative predictor of boycott participation (b = −0.11, t = −1.73, n.s.). Support was found for both hypotheses concerning the predictors of prior purchase (H5b and H6a); product judgments were a significant positive predictor of this construct (b = 0.26, t = 3.48, p < 0.001), while consumer ethnocentrism was a significant negative predictor (b = −0.21, t = −2.98, p < 0.001). In support of H6b, consumer ethnocentrism was found to be a significant negative predictor of product judgments (b = −0.27, t = 3.91, p < 0.001). If a path is inserted from consumer ethnocentrism to boycotting, its coefficient is not significant (b = 0.04; t = 0.50, n.s.), supporting H6c.

Relative effects of animosity and efficacy. As noted, animosity was a stronger predictor of boycott participation than was efficacy. Another way to examine this is to group respondents based on whether they were low (≤ 4) or high (> 4) on animosity

<table>
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<tr>
<th>Table V. Study 2 construct intercorrelations: boycott model</th>
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<tr>
<td></td>
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<tr>
<td>Boycott</td>
</tr>
<tr>
<td>Cetscale</td>
</tr>
<tr>
<td>Animosity</td>
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<tr>
<td>Prior</td>
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<tr>
<td>Efficacy</td>
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and efficacy. Table VI shows the percent of respondents in each of the four groups who stated that they had avoided French products once nuclear testing began. Both animosity and efficacy were related to avoiding French goods (differences between all percentages were significant, \( p < 0.001 \)). Those who were high in both animosity and efficacy were the most likely to avoid French goods (80.9 percent), while those who were low on both dimensions were the least likely (6.8 percent). This provides additional support for the results of the boycott model. Further, animosity seemed to play a more important role in the decision to boycott: the gap in proportions is greater when going from low to high animosity than when going from low to high efficacy.

### An alternative explanation

It is possible that, when asked to recall their purchases of French goods prior to the nuclear testing, consumers’ anger might bias their recollections. *A priori*, the bias could go either way. For example, those who were angry with France might underestimate their prior levels of purchasing French goods in order to distance themselves from France. Alternatively, those who were angry might overestimate prior purchase levels in order to appear (to themselves and/or to the researchers) that they had ceased purchasing a higher number of goods. Either scenario could affect the validity of the model results reported above.

<table>
<thead>
<tr>
<th>Ansimosity</th>
<th>Low</th>
<th>Efficacy</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>6.8</td>
<td>21.7</td>
<td></td>
</tr>
<tr>
<td>n</td>
<td>59</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>54.9</td>
<td>80.9</td>
<td></td>
</tr>
<tr>
<td>n</td>
<td>72</td>
<td>96</td>
<td></td>
</tr>
</tbody>
</table>

**Table VI.** Percentage of respondents indicating they avoided French products.
In an attempt to rule out these possibilities, a model was tested in which prior purchase was predicted by product judgments, consumer ethnocentrism, animosity toward France, and efficacy (a path was also placed from consumer ethnocentrism to product judgments). Product judgments and consumer ethnocentrism were each found to be significant predictors of recollections of prior purchase ($b = 0.25$, $t = 3.33$, $p < 0.001$, and $b = -0.17$, $t = -1.98$, $p < 0.05$, respectively). Animosity toward France and efficacy, however, were not significant predictors ($b = -0.12$, $t = -1.29$, n.s., and $b = 0.07$, $t = 0.91$, n.s., respectively); fit statistics for this model were $\chi^2(145) = 307.77$, $p < 0.001$, RMSEA = 0.061, CFI = 0.93, NNFI = 0.91. These results bolster the validity of the findings reported above and suggest that consumers’ recollections of the purchase of French goods prior to nuclear testing were not colored by animosity toward France or belief in the effectiveness of boycotts.

Future purchase intentions
In addition to their purchases made before and during nuclear testing, respondents were also asked whether they planned to purchase French goods in each of the six categories during the next year. A within-subjects ANOVA reveals significant differences across the three time periods, $F(2, 498) = 43.55$, $p < 0.001$. As indicated above, prior to testing, respondents purchased French goods from an average of 3.12 categories. Once testing began, this purchase level dropped to 1.48, $t(249) = 17.19$, $p < 0.001$. Subsequent to France’s cessation of testing, respondents showed a significant increase in their future purchase intentions for French goods ($m = 1.95$), $t(249) = 2.07$, $p < 0.05$. This level of purchase, however, is significantly below the level from before nuclear testing, $t(249) = 6.00$, $p < 0.001$.

Discussion
The findings from Study 2 support 10 of 11 hypotheses. Results from the boycott model show that animosity, consumer efficacy and prior purchase levels all predicted the degree to which a consumer participated in the boycott. Product judgments and consumer ethnocentrism were predictive only of prior purchase levels, and not boycott participation. Thus, highly ethnocentric consumers were not more likely to participate in the boycott. Further, while positive product judgments led to higher initial purchase levels, these high opinions did not prevent boycott participation.

Study 2 also shows that, even a year after the cessation of nuclear testing, Australian consumers continue to have strong negative affect toward France. This, in turn, had significant marketplace consequences for French products. Purchase levels of French goods dropped significantly once nuclear testing began, and did not recover to previous levels. These findings are consistent with media reports from the popular and professional press that indicated at the time of the controversy a sharp decline in Australia (and the Pacific Rim generally) in the sales of French goods across a range of product categories (Advertising Age, 1995; French-Australian Chamber of Commerce, 1996; Patel, 1996). Apparently, Australian consumers were unable to forgive France even though, officially, the controversy had ended.

The animosity framework and its extension to the boycott model demonstrates that anger did not manifest itself uniformly across all consumers. Purchase levels for French goods, both during and after the controversy, were largely determined by consumers’ degree of animosity towards France and, to a lesser extent, their belief that...
boycotts can bring about change. While consumer anger and efficacy were both significant predictors of boycott participation, anger played a more important role than efficacy in determining boycott participation (the coefficient for animosity was 0.46 vs 14 for efficacy). These results suggest that the Australian boycott of French goods was more expressive than instrumental in nature. Traditionally, the dichotomous classification of a boycott as either expressive or instrumental, has been based on the objectives of the organizations calling for the protest (Friedman, 1991, 1999). The boycott model presented here provides a richer approach to classifying boycotts that is calibrated along a continuum and that is derived from the perceptions of individual consumers.

As predicted, levels of antipathy decreased between the two studies. Yet, in the aftermath of the boycott, consumer anger remained quite high and continued to predict the willingness to buy French products. As expected, respondents in Study 2 who showed high levels of consumer ethnocentrism were less willing to buy French products and denigrated the quality of these goods. In Study 1, only the latter effect (denigration of quality) was found. One possible explanation for this difference is that, in Study 1, very high levels of anger toward France overshadowed the effects of consumer ethnocentrism on the willingness to buy French products. The subsequent, albeit small, decrease in anger found in Study 2 may have enabled ethnocentrism to play a more prominent role in consumers’ evaluative processes.

One finding in Study 2 was unexpected: animosity toward France was found to predict judgments of French product quality. This represents a significant departure from the predictions of the animosity model and from previous empirical findings (Klein et al., 1998; Klein, 2002). In Study 1, animosity was independent of product judgments. A year later, angry consumers had begun to denigrate the quality of French goods. And while overall ratings of French product quality did not change between the two studies, those consumers in Study 2 who remained particularly indignant with France judged French product quality to be lower than did their less angry counterparts. One explanation is that once the official focus of hostilities had ended, strong negative feelings about France lingered and extended to French products. Sixty years after the invasion of Nanjing, however, Chinese consumers continue to express strong anger towards Japan but do not denigrate the quality of Japanese goods (Klein et al., 1998). Perhaps, the denigration of a target country’s products manifests itself in the immediate wake of the controversy’s resolution, but eventually diminishes over time. In any event, our longitudinal analysis suggests that, as an international controversy unfolds, the relationships between animosity and product judgments can be dynamic.

**Managerial implications**

The boycott by Australian consumers had a considerable negative effect both on sales and on the morale of employees in French businesses. And yet, the findings from Study 1 suggested that, at the height of the controversy, there also was some good news for French managers in Australia: consumer anger over nuclear testing did not lead to the denigration of French goods. But managers should not be too sanguine. Study 2 suggests that beyond the duration of the official protest there may be serious repercussions for the quality judgments of French products.
Given that consumers may continue to manifest anger after the official boycott has ended – and at this point, perceptions of product quality can suffer – managers should consider implementing communications programs which remind consumers of the quality of their products. This may enhance consumers’ perceptions of the firm’s offerings. Research on the remediation of negative rumors (Tybout et al., 1981) suggests that the best way to achieve this may be to create positive associations with the firm, which then extend to its products. One suggestion would be to engage in highly visible and socially responsible corporate actions that stand in obvious contrast to the government actions that triggered the boycott. In the case of French firms, this could include sponsorship of programs that protect the environment, or endorsement of treaties that ban nuclear testing.

Study 2 also suggests that international marketers need to gauge the intensity and duration of consumer hostility beyond the official protest, particularly for protests that are dominated by expressive motivations. Further, monitoring the levels of animosity across a firm’s global markets would provide benefits to the international marketing manager who may find it necessary to localize marketing strategies for protesting consumers in different countries or regions. For example, France’s nuclear testing triggered a vociferous response among consumers in Australia and the South Pacific, but caused considerably less controversy and protests in countries outside the region.

Managers of a boycott target could also disseminate internally within the firm “user-friendly” results from the boycott model. During a boycott employee morale often drops, in part because of the difficulty of responding to queries about the controversy from family, friends, and others (Barton, 1993; Pincus and Acharya, 1988). By disseminating these results in a systematic manner, while at the same time highlighting the firm’s strategic response to the crisis, management can communicate competence and confidence to its employees. Management also demonstrates that the firm has a sophisticated empirical understanding of the crisis and is responding in an appropriate and effective manner.

Global retailers, local retailers, and their import firms should also be alert to the threat of increasingly frequent and sophisticated consumer protests. As these organizations source their merchandise assortments, they should be vigilant and measure consumer hostility in their selling regions both during and after any controversy that might trigger a boycott. While a retailer may serve as the target of a consumer boycott, a more likely target may be specific merchandise and the brands that they carry. For example, if a boycott of a nation’s goods is initiated, retailers will benefit by assessing and anticipating the degree of consumer animosity toward particular suppliers. The buying center can then concentrate on making available goods from alternative producers.

Finally, the boycott model presents a straightforward conceptual framework from which managers can gain insight into consumers’ boycott motivations, the behavioral consequences of the protest, and the likely short- and long-term harm inflicted on the firm. The relevant constructs are generally easy to measure – in the current study, for example, animosity toward France and consumer efficacy were each indicated by four items. When a consumer boycott threatens, items measuring animosity specific to the controversy (as well as assessments of efficacy, product quality, and purchase intentions) could be included as a cost-effective addition to a firm’s ongoing
market research activities. If managers are unable to identify specific issues that may be contentious to particular target segments, more general measures of animosity (e.g. “I feel angry toward Country X”) can be employed.

Limitations and future research
Naturally, the results of these studies are qualified by several limitations, which, in turn, present opportunities for future research. The current research focused on an indirect consumer protest. Future studies need to determine if the relationships found among the constructs in the present study extend to a “direct” boycott situation, in which a specific firm is targeted because of its own actions (Sen et al., 2001). Brown and Dacin (1997) found that perceptions of corporate responsibility could effect product evaluations. Thus, it would be fruitful to examine whether animosity toward a specific firm, or even a controversial product category (e.g. tobacco or pharmaceuticals) affects product judgments.

Consumers in the two studies reported here showed differing degrees of anger in response to France’s nuclear testing. Differences were also found in their beliefs in the efficacy of the boycott. This suggests that consumers’ motivations for boycott participation are likely to differ even within the same marketplace protest. Some consumers might be motivated by the desire to express anger while others take a more calculated approach and boycott strictly to force a change in policies. In addition, multiple motivations might underlie a single consumer’s participation in a boycott: an individual may wish to express outrage and believe that by doing so they will bring about change. Future research might identify a boycott that is driven primarily by instrumental motivations in order to investigate the relationship among the constructs examined here. Further, future studies could explore more fully other motivations that drive boycott participation such as the desire to avoid feeling guilty, the wish to be part of a group, and the need to see oneself as socially responsible.

Another unanswered question is whether or not industrial (B2B) buyers would manifest protest behavior similar to final consumers as they evaluate and purchase products and services. Subsequent studies may wish to investigate whether, in the face of consumer protests, industrial buyers are more objective and rational in their decision making and thus rely less on emotional factors when sourcing products from foreign countries.

Another consideration is that the present study employed only a one-year time frame to investigate the fallout from France’s nuclear testing. Thus, it is difficult to say how long animosity toward France will last. The duration of consumer anger might be related to the longevity of the perceived repercussions of the offending actions (for example, long-term damage to the environment). Future research should examine this relationship.

Finally, more precise measures could also be developed to measure boycott participation. The measure used here – the withdrawal from category purchase – was successfully predicted by the hypothesized constructs. However, greater specificity for boycott participation could be achieved by the use of scanner or panel data to track the reduction of purchase volume in particular categories.

Conclusion
The use of boycotts will continue to increase as greater numbers of consumers join or support advocacy groups with marketplace targets. These groups are becoming more
sophisticated and will exploit their leverage, both domestically and internationally, with increasing effect. Accordingly, managers need to recognize that they cannot separate controversial events in the global political and economic arena from consumers’ marketplace behavior.

The three quotes that start this paper are a stark reminder that managers often lack an understanding of consumer boycott behavior that is commensurate with the extent and sophistication of the protests they are likely to face. The studies and results reported here provide theoretical and practical insights above and beyond managers’ current knowledge in this area.

Notes

1. In some instances, consumers may choose to boycott goods that they had yet purchased but that were in their consideration set of alternatives.

2. The refusal to purchase specific products may, at first glance, appear to be related to the literature on consumer complaint behavior. However, consumer complaints typically stem from dissatisfaction that is transaction-based (i.e. subsequent to the purchase and/or use of a product or service). Boycotts, in contrast, go beyond transaction-based dissatisfaction to a protest of the policies and actions of a firm or government.

3. An analogous situation was seen in North America with the return to Exxon of thousands of cut-up credit cards following the 1989 Valdez catastrophe. Those who participated in this action were not necessarily associated with the organizations calling for a protest of Exxon.

4. The drop-off/pick-up technique uses a metropolitan area as the sampling frame. Specific city blocks are randomly selected as starting points and interviewers begin a “random walk” through a selected neighborhood soliciting participation from every third house. The process is repeated in other random neighborhoods within the sampling frame.

5. In order to avoid respondent selection bias, our interviewers solicited participation with the following introduction – “This survey is part of a larger international project whose object is to understand better the views of Australian consumers toward products from other countries”. Only after they agreed to participate did respondents discover the specific country and issues to be focused on.

6. When the measurement properties of the full 10-item CETSCALE were examined it was found to have an unacceptably high RMSEA. This finding is consistent with other research using the scale (Klein et al. 1998; Klein et al., 1999; Netemeyer et al., 1991). Based on recommendations by MacCallum et al. (1992) for model re-specification, the CETSCALE was reduced to five items (refer Appendix). The same pattern of results, including the slope coefficients for the paths between constructs, were obtained regardless of whether the reduced 5-item scale or the full 10-item scale was employed.

7. In the original test of the animosity model in Nanjing, China, “general animosity” (e.g. “I am angry with Japan”) was used to predict attitudes toward buying. The general animosity construct was indicated by two second-order constructs: animosity due to World War II, and animosity due to economic tensions. An analogous model was tested in the current research, by having general animosity toward the French (“I feel angry towards France” and “I dislike France”) indicated by the second order construct of nuclear animosity (excluding the item “I feel angry towards France”). This model also showed high levels of fit: $\chi^2(164) = 253.10$, $p < 0.001$, RMSEA = 0.043, CFI = 0.96, and NNFI = 0.95. However, the more parsimonious model (without the general animosity construct) is more suitable to the investigation of boycotts where consumers are angry over a specific event or action.
8. Subsequent to this announcement, France, along with the US and Britain, agreed to sign and make official the protocols to the 1985 Treaty of Rarotonga which proclaims the South Pacific as a nuclear free zone.

9. The error variance for prior purchase, and for the measure of boycott participation, was set to .15, which was equal to the smallest estimated error variance ($\Theta_{ij}$) of the other items in the rest of the model, as suggested by Anderson and Gerbing (1988).

References


Barton, L. (1993), Crisis in Organizations: Managing and Communicating in the Heat of Crisis, Southwestern Publishing Co., Cincinnati, OH.


**Further reading**

Appendix

Judgments of French products
(modified from Darling and Wood, 1989; Darling and Arnold, 1988)
Products made in France are carefully produced and have fine workmanship.
Products made in France show a very high degree of technological advancement.
Products made in France usually show a very clever use of color and design.
Products made in France are usually quite reliable and seem to last the desired length of time.
Products made in France are usually a good value for the money.

Willingness to buy French products
(modified from Darling and Wood, 1989; Darling and Arnold, 1988)
I would feel guilty if I bought a French product.
I would never buy a French car.
Whenever possible, I avoid buying French products.
Whenever available, I would prefer to buy products made in France.
I do not like the idea of owning French products.

CETSCALE (from Shimp and Sharma, 1987)
Only those products that are unavailable in Australia should be imported.
It is not right to purchase foreign products, because it puts Australians out of jobs.
A real Australian should always buy Australian-made products.
Australians should not buy foreign products, because this hurts Australian business and causes unemployment.
It may cost me in the long-run but I prefer to support Australian products.

Animosity toward France
I feel angry towards France.
France’s recent nuclear testing was an act of aggression in the South Pacific.
France does not care what Australia or other nations think of its actions.
I will never forgive France for its nuclear testing in the South Pacific.

Consumer efficacy
By refusing to buy French goods, Australian consumers can have an effect on the policies of the French government.
What Australian consumers buy has no effect on the policies of the French government.
Refusing to buy French products is an effective way to influence the policies of the French government.
French firms doing business in Australia can have an influence over the policies of the French government.