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CONSUMER BEHAVIOR AND THE MEDIA
A Loosely Coupled Network

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Abstract
While some efforts have been made to elevate the role of the 4Ps in consumer marketing, this paper employs the network theory and aims to investigate consumer perception using the incident of the “mad cow disease.” Contrary to other studies that observe the role of media as a means to support market activities, this paper considers media and its influence on consumer perception from a different angle. It studies how variations in intensity of negative news released by the media influence the consumer. This is done by two surveys conducted during two periods of time one when media discussed the incident intensively and then again three months later, examining the permanency of the perception change. The defined network for this study is a set of loosely interconnected entities of the international market consumers, vendors, national and international media, governments, and specialists in different countries, and public opinion. This paper attempts to expand and enrich the already known set of ideas about consumer-environment interaction and add more knowledge about the use of network models for consumer marketing.


Introduction
* When the French tested their nuclear weapons, people from several nations boycotted French wine and cheese.
* After major oil spills, people stop buying petrol from the firms responsible for the oil catastrophes.
* “Mad cow disease” prompted people to avoid buying beef and even other products from Great Britain.

News about these incidents, which are spread by the media, are examples of events which influence entities participating in the international market place. Because of the increased globalization of our communication systems, an incident in one country can no longer be treated as an isolated phenomenon. News of the incident can rapidly spread to other markets and influence the behavior of participants in other countries. Consumers, either because of their individual or social attachment to the subject, subsequently adapt their behavior to the perceived turmoil.

Nilson (1995) states that internationalization of the media has changed the market conditions. He explains that the media’s influence and ability to change perceptions and behaviors is so strong that traditional analytical tools for studying the market are insufficient. Against this background, this paper aims to explore the influence of media on the exchange in a consumer-vendor relationship. It will study the process of consumer perception, starting with when the media suddenly informed consumers about the mad cow disease and following it up to the point when this case was no longer newsworthy.

The subject of consumer perception and behavior is one of the most widely studied and embraced constructs in marketing. Over the last two decades more than 20,000 academic
articles have been published on that topic (cf. Peterson and Wilson 1992). Models and views presented in these articles are connected with positive change in consumer perception (Kotler, 1996; Biswas and Burton, 1993; Spreng and Olshavsky, 1993). The main body of these articles elaborates on marketing views with subjects such as consumer satisfaction, repurchasing, and increasing sales. Some go further and measure the degree of marketing success or satisfaction (Channon, 1985 and 1987; Andreason, 1977; Westbrook, 1980). Marketing strategies allot an active role to the vendor; the consumer market is considered to be influenced by an environment constituted of components such as competitors and governments. The media is presented as a marketing tool for a variety of promotions aimed at gaining success in the market. It also can serve as a means for positive change in consumer perception (East, 1990). However, the media is filled with discussions about events that will probably affect the behavior of the consumers in a negative manner. Raboy and Dagenais (1995) hold the view that because of the internationalization of products and news modern society is characterized by a seemingly endless series of critical events, real and perceived, general and specific.

The internationalization of the market place has given market elements such as firms and industries important roles that can be played out in the media. Despite the fact that the media has a high impact on the behavior of the consumer, vendors, and producers alike, the role of media in changing the behavior of the consumers in market activities has been less researched (Booth, 1993). When discussing consumer perception of a critical condition such as mad cow disease, Booth explains that occasional crises (for example, consumer terrorism or product tampering in retail and food sectors) are not discussed and/or developed sufficiently, even though these events are very germane to companies and retailers. Richins (1983), Day and London (1976), and Diamond et al. (1976) point out the shortage of studies investigating the change of consumer perception from satisfaction to dissatisfaction. Richins (1983), for example, attempts to study the negative role word-of-mouth can have on how consumers perceive a news event as exhibited during social interactions between consumers (see also Baker, 1968).

Responding to this demand and against existing trends, this paper focuses on the role of the media and its impact on consumer perception in the international market, using an incident that was enhanced and overemphasized by the accelerated process of the globalization of the media. Event though the incident only happened in one nation, Great Britain, and thus affected a limited number of people. The question studied is how the information the media released about this obscure disease influenced the perceptions of consumers in Sweden. The unfolding events were studied during two different time periods: one study took place almost immediately after the mass media revelations about the disease and the other after approximately three months. The questions examined are: What was Swedish consumers’ reaction to the news about the mad cow disease immediately following the widely released mass media coverage? What perception changes did Swedish consumers manifest towards
meat products from Great Britain and her neighboring countries, and did the observed changes in perception endure over a long period of time? How did mad cow disease affect consumer trust towards politicians and other participants and did the perception of trust stabilize over time and finally, did the event in question affect the behavior of consumers towards other products from Great Britain and her neighboring countries.

**Media, Marketing, and Crises**

Critical events affecting consumers are defined as negative situations with little or no control on the part of the producer or retailer (Dutton and Jackson, 1987; Clark, 1988). The event can be the result of bad judgment calls and mistakes made by management and/or during manufacturing (Mitchell, 1986); faults in the product itself (Tory, 1993); external events such as politics (Hadjikhani, 1996; McClelland, 1961), or social interaction (Goodwin, 1987), which can proliferate, for example, by word-of-mouth (Herr, et al., 1991; Richins, 1983). In all these cases, media has directly or indirectly played its role by spreading the news (Bruck, 1989).

While some studies find the role of the media and communications in general to be a positive one, using them as managerial tools for effecting positive changes in the perception of consumers (Kotler, 1996), others see the media as the opposite a unit or participant that, instead of fending off crises in the market, creates them (Raboy and Dagenais, 1995; Neuzil and Kovarik, 1996).

However, the mainstream of marketing literature at the present offers models for advertisement or other communication as a means of changing the consumer’s perceptions. The dyadic paradigm, which recently came to dominate the field of consumer marketing, implicitly extends its boundaries and includes media as a third player in the buyer-seller relationship (Assael, 1992). This view covers the positive utility of this third player and presents it as a marketing tool for sellers to promote positive changes in the perception of the consumers.

The dyadic view, however, opened up new research fields such as successful and unsuccessful marketing (Cronier and Mories, 1989; McKenna, 1991), managerial incompetence related to the negative perception of consumers (Everette, et al., 1994; Richins, 1983), and the influence of environmental events that are spread by the media and caused by social interactions (Evans, et al., 1996). Keane (1991) points out that in the case of critical events the media—because of its doubtful legitimacy and blurred lines of responsibility—can influence the position of companies positively and negatively at the same time. The media can act according to the demands of some business players and effect a positive change in the behavior of a specific segment of society when advertising or relaying news. It can also undertake a ‘neutral’ position when spreading the news or even create the impression of an impending crisis and/or change a negative perception the public might have of a company or product into a positive one and vice versa.
Instead of focusing on management, some other studies aim to be more explanatory. They pay closer attention to illustrating the events in the environment and connecting them to the change of perception in consumers. Tory (1993) presents a model that allocates a more powerful role to the consumer in its interaction with the environment. It pinpoints the role of the media and its influence on consumer consciousness. Contrary to those who study media as a management tool, this study retains the neutral role of media as one of the players for covering events and crises that will in the end influence the perception of consumers.

Those who expand this view and connect turbulent world events to marketing, choose a different position, either a static or process perspective. For the static perspective, Glazer and Weiss (1993) and Smart and Vertinsky (1977), focus on the level of decision making in any given company and study how timing becomes crucial to the dissemination of information in critical conditions. For the process perspective, studies such as the one conducted by MacCrimmon and Wehrung (1986), are concerned with the behavioral change of the individual consumer and the impact the news has on this consumer. In this case, the changes in the consumer are explained with the ability of the consumer to be aware and able to adapt to a situation. Having this perspective, but applying it to the company level, Kauseman and Jarman (1992) and Arnlond (1980) study behavioral changes by discussing the process of change-from the initial shock to adaptation-a consumer might undergo. The process perspective in these studies pays attention mainly to the changes that are the result of turbulent events and does not aim at studying the sources of these changes.

In recent years, various efforts have been made to broaden the definition and also the content of marketing beyond the dyadic approach to include other players active in the market. Some researchers, such as Boddewyn (1988), hold an economic viewpoint and present a static model to integrate non-business participants such as governments and media into the institutional theory. Similarly, Barker (1968) and Foxal (1993) see the environment as a participant, entering into a relationship with the other main players (see also Arndt, 1985; Baggozi 1995). Among the studies in consumer marketing, Shetch and Parvatiyar (1995) extend the dyadic relationship perspective to include a model that presents the influence players in the social and institutional context have over one another to explain the behavior of the consumer. Others, such as Johansson and Håkansson (1988), employ a process view and present a network model for studying behavioral changes. Following this process view, Håkansson and Snehota (1995) apply the model to study participants in the business sectors, for example, companies and firms, others, such as Hadjikhani (1996), to study turbulent relationships between political entities/events and the media and business players. Sjögren (1996) uses that model to study organizations’ critical relationships with politics, the media, and business players. The last two studies point at the process of adaptation of the players who find themselves in a critical network. The process aspect and also the interconnections between business and non-business participants, which are the foundation in the network model, are
suitable for studying subjects such as the process of change in the perception of the consumers because of the influence of media or other market factions.

**Loosely Interconnected Actors**
Recent developments in the area of marketing consist of process studies in which economic and non-economic players are identified and connected to each other in various resource exchange activities (Johanson, J. & Vahlne, 1992; Ford 1990; Turnbull & Valla, 1986). The essence of interconnected relationships is that activities within one relationship will influence activities in other relationships. In most process studies the unit of analysis has been exchange activities between economic agents and how various business exchanges influence adjustments or activities in other economic exchanges. However, it can be argued that in certain processes non-business exchange activities can positively or negatively influence economic activities. The political decision of France to conduct atomic tests affected the behavior of the Swedish consumers when purchasing French wine and cheese and this in turn influenced the producers, dealers, importers, and shops. The business exchange between the consumers and retailers is also connected to the non-business players’ relationships. Participants to this exchange might consider the social relationship to their counterparts to be positive or negative, which might affect their view of the business exchange.

Thus, in a wider exchange network, activities can be manifested when non-economic players such as politicians and media affect business exchanges between economic counterparts. The network defined for this study is a set of players-consumers, sellers, national and international media, governments, specialists, public opinion-connected to one another in various exchange activities. Easton and Araujo (1992) suggest that there is room for the inclusion of other types of relationships in the network, that are irregular and unpredictable. Since theoretical and empirical studies of the network are mainly related to regular industrial relationships, the interaction of these elements is explained in this paper as a loosely interconnected network (Weick, 1979), i.e., interrelated business and non-business players in an unrestricted structure (Orton and Weick, 1990). For this type of network, Weick (1976) identifies several major aspects. The first aspect is that the elements become active when there is a critical condition. That is to say that the elements affect each other suddenly rather than continuously (Weick, 1982; see also Orton and Weick, 1990). Players become active because of a dramatic change, and when the rate of change for the critical event decreases, the system becomes inactive until a new contingency appears (Aldrich, 1979). The second aspect for this type of loosely interconnected network -as explained by Weick (1976 - is that the players, despite exchange relationships, retain evidence of separateness and their own identity. The players are linked but preserve some degree of responsiveness and self-determination.

For the exchange between players such as media, public opinion, and consumers, the relationship is defined here in its wider context and the element of time is added. The network
is—again-made up of a set of social players affecting each other. They are explained to have a
generalized and simple exchange in which reciprocity is not necessarily achieved through any
direct benefit one participant can provide for another, but can even be effected indirectly
(Bagozzi 1975; Levi-Strauss, 1969; Ekh, 1974). Since the loosely connected networks become
active only occasionally, the process of the change and the results of the affected changes left
behind become important. An incident happening to one player will spread to other players via
connections in the network and bring about changes in their behavior until the exchange
becomes normalized. But normalization does not mean that the pre-incident network is similar
to the post-incident network (Hadjikhani, 1992). In the post-incident network a participant
may have residues from the change, which will affect his future behavior, until he or she has
made some behavioral adaptations. Weick (1976) points out that the responsiveness and ability
to adapt, that the players in the loosely interconnected system exhibit, are essential elements. A
unique event for one player causes the connected players to adjust their behavior. It is elements
such as adaptation and responsiveness that enables players to hold up the network, otherwise
we would have a non-connected network. Adaptation, however, is rarely touched upon in most
of the literature, except in recent articles concerning industrial buyer-seller relationships
(Johanson, Hallén & Seyed-Mohamed 1991; 1993). Adaptation in business can be defined as
the ways in which interacting players modify or continuously adjust to bring about a
momentary equilibrium to fit particular situations. While in a dyadic exchange players will be
continuously adjusting their economic situation, such as production, finances, product, and
other variables, to cause efficiency, it could be argued that in a non-economic situation, players
will be adjusting socially or psychologically to fit particular situations. This will be the case
when continuous propaganda activities successively adjust the perceptions and notions people
have about certain participants in the network, which in turn changes their attitude towards
these players, which could be a foreign nation, institution, or a product. Thus, adaptation is a
process that gives any given system its dynamic characteristics.

The adaptation image, as Weick (1976) puts it, is that these players are somehow
attached to each other. Their attachment may be circumscribed, infrequent, weak in its indirect
or mutual affects. This view is expressed because the diffusion of change or turbulence from
one player to another player rules the connections in the network. As mentioned before, a
critical condition for one player can spread by exchange to other players (Hadjikhani and
Håkansson, 1996), and the loosely interconnected participants adapt their behavior because of
their attachment. An incident for a meat producer, which has repercussions deep into the
structure of the seller-consumer exchange relationship, can spread and force consumers to
adapt their behavior. The need for adaptation in such a network can be explained by the
players’ bonds or trust, which interrelates the players (ibid.). In this vein, Gronevettter (1973)
explains trust as a major issue that binds the players together. Thus, a drastic negative change
in the perception of a product will influence the players’ trust and mistrust and they respond by
adapting their activities. The view holds that, for example, the conversion of trust to mistrust in one specific relationship will spread to other relationships, and players will adapt their behavior accordingly.

**Mad Cow Disease**
On 21 March 1996, two British ministers made statements in the House of Commons as to the evidence that Cruetzfelds-Jakobs Syndrome (CJS), a brain disease among humans, might be connected to the “mad cow disease,” BSE. The committee recommended that all cows older than thirty months should be slaughtered and it should be prohibited to feed the cows fodder made of certain animal substances such as brains from sheep and others. The two ministers, however, were not united in their statements: the Minister of Agriculture wanted between three and five million animals slaughtered, while the Minister of Health wanted more than eleven million cows slaughtered. This incongruent information was picked up and published internationally by the mass media, generating global unrest among politicians and consumers.

The above incidence had a tremendous impact on the international meat market. The very same day the British Ministers made their statements, France immediately stopped importing any beef from Great Britain. Within a week, thirtysix other nations also prohibited importing any meat products from Great Britain. Additionally, several countries outside the EU started cutting down on their imports of meat from other EU countries as well. Within days, many countries had already more or less stopped importing meats from Germany, Switzerland, and Ireland. In spite of arguments of how each country’s meat production differed from the production in Great Britain, Ireland was hit the most, due to two reasons: One, its geographic proximity to Great Britain automatically connected it with Great Britain in the minds of the consumers, and two, Ireland exports eightyfive percent of her meat production.

Table 1. illustrates the number of dead cows caused by the disease. In 1990, the number was more than twenty-five thousand for Great Britain and it increased every year until 1994, when it leveled off. Ireland, Portugal, and France, however, show an increasing trend. In spite of these facts, the incident became an affair for the media in 1996 and mainly for Great Britain. It was then that the governments of other nations prohibited the import of meat from Great Britain.
This episode generated some form of political game in the EU parliament. Those programs that had been drawn up the British Government were considered inadequate, and most of the Health Ministers of nations other than Great Britain demanded quick and drastic measures. The sentiment was that if Great Britain were to accommodate these demands then they could work out a strategy with a time frame to enable Great Britain to export her meat products again. Great Britain in turn reacted negatively to such demands, and used her veto to stop other activities and programs within the EU, which were unrelated to BES.

In the aftermath of this episode various other players came to the forefront. Several consumer associations around the world published reports or recommendations relating to meat consumption. For example, Great Britain’s ‘Consumer Association’ strongly recommended that consumers should avoid eating meat to avoid or minimize the CJS risk. Other players, such as an insurance company in Sweden, started marketing insurance policies that offered CJS coverage.

The media in Sweden played an important role in creating and molding opinions of the consumers. On March 19th, an evening newspaper printed an article with the message that more than ninety Swedes had died as a consequence of CJS. This figure had then not been verified but the article generated similar stories in other, serious daily newspapers. They featured reports of their own, interviewing various experts, who more or less contributed to spreading the news about the serious effects of “mad cow disease” upon meat consumers.

The end user reacted to the media coverage: within two weeks after the British Ministers’ statements, the consumption of beef in Sweden generally dropped twenty percent. Instead, the consumers started to buy other types of meat. Most of those who continued to consume beef switched from buying imported beef to Swedish beef. Additionally, the consumers, as a consequence of the beef problem, started to boycott other imported meat types. A sort of mass hysteria prevailed during a period of time following the revelation of BSE.

Until 1996, the import of meat products from Great Britain, Ireland, and Denmark, as illustrated in Table 2, increased every year. Table 2. shows the value of these imports to the Swedish economy (in SEK) over a 5-year period.

### Table 1. Countries and Numbers of Dead Cows.

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>France</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Ireland</td>
<td>17</td>
<td>18</td>
<td>16</td>
<td>19</td>
<td>16</td>
<td>35</td>
</tr>
<tr>
<td>Italy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Portugal</td>
<td></td>
<td></td>
<td>1</td>
<td>7</td>
<td>14</td>
<td>23</td>
</tr>
<tr>
<td>Great Britain</td>
<td>25023</td>
<td>36681</td>
<td>37370</td>
<td>28944</td>
<td>14062</td>
<td>1714</td>
</tr>
<tr>
<td>Switzerland</td>
<td>9</td>
<td>15</td>
<td>29</td>
<td>63</td>
<td>68</td>
<td>41</td>
</tr>
</tbody>
</table>
Table 2. Import of Meat to Sweden in Swedish Crowns.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef</td>
<td>322</td>
<td>408</td>
<td>431</td>
<td>576</td>
<td>665</td>
</tr>
<tr>
<td>Other meat</td>
<td>466</td>
<td>512</td>
<td>298</td>
<td>456</td>
<td>893</td>
</tr>
<tr>
<td>Dried, canned, salted meat, etc.</td>
<td>374</td>
<td>482</td>
<td>454</td>
<td>425</td>
<td>526</td>
</tr>
</tbody>
</table>

Considering the volume and value of imported meat products from Great Britain during 1993 and 1994, the same trend can be observed. As illustrated in Table 3., the rate of imports was three times higher in 1994 than compared with 1993.

Table 3. The Value and Volume of Meat Imports

<table>
<thead>
<tr>
<th>Volume in tons</th>
<th>Value in SEK (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>456</td>
</tr>
<tr>
<td></td>
<td>23 296</td>
</tr>
<tr>
<td>1994</td>
<td>1246</td>
</tr>
<tr>
<td></td>
<td>56 168</td>
</tr>
</tbody>
</table>

Method

This study is construed to study customer perception within the Swedish population immediately after the mass media coverage of the mad cow disease and the consequent effects on consumer behavior. The primary aim of the study was to understand how consumers react to a major incident that influences their daily lives. From a research point of view, we can say that lately several of such major incidences have taken place. In addition to the mad cow disease, the Chernobyl accident in Ukraine, the Three Mile Island incident in the U.S., and distressing child labor news from Pakistan are but a few of the events that have significantly influenced consumer behavior. Due to the globalization of communication and markets, important occurrences are communicated globally within a short period of time. Sweden, for instance, which until a few years ago had only two state-owned television channels, is now enjoying hundreds of international television programs. What Sweden is experiencing now is that foreign market participants play a major role in-among other markets-consumer goods markets. Meat, which was very much controlled before, can now be imported and exported much more freely specifically from countries within the EU. This has resulted in large increases in imported meat during the past few years (see Table 2.). The effect of these developments is that any change in one of EU markets will readily and strongly affect market behavior in other countries.

As previously stated, this study is quantitatively based on two surveys that are carried out at two time intervals (Kaptalan-Nagy and Ljungren, 1996; Loughlin, Palm and Peters, 1996). The first study was done in May of 1996, immediately after the mass media coverage of
the BES problem. The first interviews were done by sending surveys to 500 randomly selected people taken from the telephone book for the city of Uppsala. The number of returned surveys came to only fifteen, so we decided to conduct oral, face-to-face interviews. From 200 attempted surveys, we succeeded in collecting complete answers from 123. The interviews were conducted in various places in the city of Uppsala. The sample was random, and students went around various department stores and interviewed people who were out shopping. The second interview was conducted in August, and the approached used was similar to the first. The sample size was also 250.

The questionnaire was construed to catch answers that were relevant to our study. We were interested in knowing how quick the consumer reacts to such incidences as described above and on which media they relied on for information. Additionally, we were also interested in finding out how such an incident in one country could affect similar products from other, neighboring countries. Furthermore, we were interested in verifying whether significant occurrences such as the “mad cow” problem could push consumers towards becoming more nationalistic in their consumption patterns, that is, would they prefer locally produced items over imports. In addition, we were also inquisitive about consumers’ attitudes towards other players within the network and not just the media and consumers. In the case of the “mad cow” incident, the politicians, for example, played a significant role, partly in communicating the problem and also in bringing about policies to control the spreading of the disease. Their activities were also minutely scrutinized by the media and reported through various informational channels. The surveys during the two periods were necessary to verify whether or not consumers changed their behavior and if such changes took place, how significant are then such changes. Mass media, which played a significant role during the first two months, has more or less closed their coverage of this incident. During August, there was only sparse and scattered coverage compared to the wild and hysteric coverage in May and June.

**Results**

The major sources of information regarding “mad cow disease” are from newspapers, radio, and television (see Table 4.). Both of our investigations yielded no statistically significant difference in terms of how information had filtered down to the population. Almost ninety-five percent of the sample population had received the news through these two sources. Television and radio contributed about fifty percent of the news information to consumers. Newspapers contributed forty-six percent and the rest received the news through friends. There is little difference between the two surveys and whatever difference does exist is within the margin of error.
Table 4. Sources of Information in Percent

<table>
<thead>
<tr>
<th></th>
<th>Survey 1: n=123</th>
<th>Survey 2: n=250</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newspapers</td>
<td>46</td>
<td>46</td>
</tr>
<tr>
<td>TV &amp; Radio</td>
<td>50</td>
<td>47</td>
</tr>
<tr>
<td>Others</td>
<td>4</td>
<td>7</td>
</tr>
</tbody>
</table>

Evaluating our first question, the answer showed that a large percentage of the interviewees were against purchasing British meat. However, an interesting observation is that in the second survey, there is a significant drop in negative attitude towards British meat; it dropped from seventy-nine percent in the first survey sixty-five percent in the second survey—a decrease of fourteen percentage points. However, this drop is not due to the consumers becoming altogether positive to British meat but there is the indication that consumers are price shopping. In the first survey, five percent agreed that they would consider buying British meat if the price was right, but in the second survey a total of twenty-one percent indicated that it depended on price. A breakdown of the answers in relation to how consumers got their information is represented in Table 5. The trend is very clear: price had a significant effect on consumer decision—not immediately after the information leaked out but after three months.

Table 5. Attitude towards British Meat in Percent.

<table>
<thead>
<tr>
<th>Media</th>
<th>Survey 1</th>
<th>Survey 2</th>
<th>Survey 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Depends on Price</td>
</tr>
<tr>
<td>Newspaper</td>
<td>17</td>
<td>79</td>
<td>4</td>
</tr>
<tr>
<td>TV</td>
<td>16</td>
<td>80</td>
<td>2</td>
</tr>
<tr>
<td>Radio</td>
<td>13</td>
<td>80</td>
<td>7</td>
</tr>
<tr>
<td>Others</td>
<td>14</td>
<td>72</td>
<td>14</td>
</tr>
</tbody>
</table>

The survey results verified the second question as presented in Table 6. With this question the interviewees were asked to answer whether or not the “mad cow disease” affected their decision to buy various types of products from a chosen number of countries. The results indicate that there is a stronger negative preference for meat products from Ireland and Denmark than from Sweden. Irish meat is less preferred than Danish meat products and the Danish meat products are less preferred than Swedish meat products. In the first survey, thirty-five percent answered that they buy less meat products from Ireland compared to about twenty-six percent from Denmark, and about four percent from Sweden. In the second survey, as presented in Table 4., there seems to be a change in behavior. The results show that about fourteen percent were less willing to buy Irish meat products compared with about ten percent.
for Danish products, and two percent for Swedish products. It is clear that the consumer’s negative attitude towards meat products from other countries, except Great Britain, is changing.

Table 6. Attitudes towards Meat Imported from Sweden and Two Neighboring Countries.

<table>
<thead>
<tr>
<th></th>
<th>Survey 1: Buying Less</th>
<th>Survey 2: Buying Less</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irish</td>
<td>35.5</td>
<td>14</td>
</tr>
<tr>
<td>Danish</td>
<td>25.5</td>
<td>9.5</td>
</tr>
<tr>
<td>Swedish</td>
<td>3.5</td>
<td>2</td>
</tr>
</tbody>
</table>

Also, other statistics support the hypothesis that consumers are slowly losing interest in the country of origin of their purchased meats. When questioned whether they would buy meat even if they did not know where it came from, in the first survey seventy-two percent answered that they would not whereas in the second survey only forty-three percent had a similar opinion.

The result regarding the consumer trust towards British politicians is reproduced in Table 7. The results indicate that the politicians are not highly trusted in this episode by the Swedish consumers. There is hardly any significant change in the answers given in both surveys. However, with this question, the consumers seem to rely heavily on scientists rather than other sources. In both the surveys the answers show that seventy-eight percent and seventy-five percent in survey 1 and survey 2, respectively, indicate that they rely more on scientific proof rather than rumor or other information when making decisions regarding their meat purchases.

Table 7. Trust in British and Swedish Governments regarding information of safe cow.

<table>
<thead>
<tr>
<th></th>
<th>Survey 1</th>
<th>Survey 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust to</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>British</td>
<td>24</td>
<td>70</td>
</tr>
<tr>
<td>Swedish</td>
<td>65</td>
<td>30</td>
</tr>
</tbody>
</table>

Finally, the question regarding the perception about other products not directly connected to beef showed a drop in negative perception (Table 8). Three items were tested: cheese, chicken, and cookies. In the case of cheese and cookies the negative image dropped fifty percent. In the case of chicken, the drop is less significant, approximately twenty-five percentage points. The trend is clear: consumers are to a greater degree disassociating “mad-cow disease” from other products such as cookies, which are not meat products.
Table 8. Attitudes towards Other Imported Products from Great Britain.

<table>
<thead>
<tr>
<th></th>
<th>Survey 1: Buy Less</th>
<th>Survey 2: Buy Less</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheese</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td>Chicken</td>
<td>29</td>
<td>22</td>
</tr>
<tr>
<td>Cookies</td>
<td>14</td>
<td>7</td>
</tr>
</tbody>
</table>

Analysis

The case study concerns the change in the perception of consumer caused by the influence of the media alerted by an international event. Using networks, however, implies an adaptation of perception because of the changes in the influencing factors and their diffusion into other relationships. Furthermore, limits were set by the use of a loosely interconnected network that facilitates a study on the processes of interaction between business and non-business players during a crisis. Given the event, the interesting issue is what is left after the influence is reduced.

In this case description, several business and non-business players are identified. Perception is explained as a relationship between the consumers and product attributes that also encompasses producers of these products. Ultimately, it is the producers that become influenced by a change in the perception. Figure 1. is an illustrative map for the perceptual relationship. The major differences in May 1996 and the second period can be found in the strengths and weaknesses of some of the relationships. The relationship between the units given in Figure 1. cover the case, that is, the connections between consumers and others via the relationship between consumers and the media that this study focused on.

Figure 1. The Consumers’ Perceptions of Products and Actors.
This result will be commented on in more detail in relation to three aspects. The first aspect concerns the crisis and process of change in loosely interconnected players. The second aspect is the way that consumers’ perceptions were changed. The third aspect is related to the adaptation process of the consumer.

**Loosely Interconnected Networks and Crises**

The case shows a loosely interconnected network involving business and non-business players. As mentioned, there are already efforts made to illustrate the interaction of the business and non-business players. For example, institutional aspects of interaction (Boddewyn, 1988; Streech and Schmitter, 1985) who depict a static picture; or network interaction (Hadjikhani and Sharma, 1997; Sjögren, 1996), which is process oriented. One process suffers from being static and the other from treating the relationship as incremental with no consideration to critical events. The players in a network can represent perceptions, positions, goals, or actions (Scott, 1991). The network in this case is limited to the media, which spread the news about the cow disease from the English farmers, and consumers who change their perceptions about beef and other products from different countries. The perceptual map of consumers also contains producers since the negative or positive impact of an incident will affect the behavior of consumers when selecting the market or shop that they make their purchases from. The case shows how this loosely interconnected network becomes active and also illustrates the change in the strength of the relationships when the media released fewer articles about the seriousness of the issue.

The loosely interconnected network is not an entity that emerges from a void. It has had a life before the incident, that is, the players were somehow related to each other but had a dormant period (Hadjikhani, 1996). An incident makes the old players active and also engages new players when creating awareness about the problematic issue. The incident itself does not necessarily have a direct connection with the awareness of the players. As mentioned before, “mad cow disease” already existed in 1990. Despite the increasing number of dead cows after 1990, there was no news about the disease. The consumer’s choice before the crisis could have been based on factors such as price or quality and not on how far or close these products were from a specific country. Their perceptions were changed and took on new dimensions only when the media in May 1996 took an intense and fierce interest in the mad cow disease.

It was prohibited to sell British meat but from answers from the survey it would be safe to note that even if British meat would have been allowed to be imported, very few people would have bought it. There was a general mistrust towards British meat with more than eighty percent of the consumers having a negative attitude. However, in the second survey, a significant amount of interviewees, more than twenty percent compared with less than five percent in the first survey, indicated that they would buy British meat if it was available for
bargain prices. There is obviously a shift from no-British-meat to yes-if-the-price-is-right. However, there is no change in those groups that are indifferent to the incident.

An important dimension in this network is the residue left after the crisis has calmed down. The network prior to the incident will not be the same as the one after, a difference in the post-incident and pre-incident network. A crucial issue for a business player is how to strengthen its position when the crisis is over. The marketing aspect enforces the player to make strategic decisions. A reaction of the Irish meat producers was to drastically reduce their prices and intensify their advertisement and to safeguard the quality of their meat, in order to reduce the negative perception consumers had of the Irish beef.

But there was no one willing to buy meat products from Great Britain. The consumer perception for buying even other products such as chicken from Great Britain was not the same as before. Furthermore, the rules of competition for products coming from countries such as Ireland have changed. Those willing to buy now, do so if the price is very reasonable, making the possible risks associated with the purchases more acceptable. That means that consumers are now taking the ‘life risk’ factors into account. Beside these, some other relationships, such as trust in the meat from Swedish producers, have become stronger. Matters such as how these relationships will develop and how active this loosely interconnected network will be in the future, depends on whether one or two of the players will again discuss the issue at hand and on what strategic actions business players undertake to remove themselves as far as possible from the problematic issue. The loosely interconnected network can also be re-energized by new accidents and consumers recharging their former perceptions.

**Connections**

The rule of connection in loosely interconnected networks implies that an event in the relationship focused on will spread to other connected players. Contrary to the explanation for connections in industrial marketing networks, connectivity in this study applies to two other aspects. One is related to the aspect of perception. An incident can provide changes in the perception map, meaning that the player who exercises influence over other players can change the perception of this player and make him or her re-evaluate the relationships that already exist between them. This aspect is especially important when one of the focal players is a non-business participant and functions as a creator of change in the perception of the players. The next aspect is that the connection contains a) a period in which it becomes active, as a crisis emerges; b) a period in which influence is reduced, some links have become inactive and others have taken strategic actions. For the meat producers from countries other than Great Britain, the crisis became a burden. Some who had far reaching connections, dealing with meat, chicken, or cheese producers from Denmark, selected the strategy of becoming dormant participants. They choose this strategy hoping that after the crisis is over, consumers will
successively change their perceptions. Others selected the strategy of disassociating. After the first period, Ireland’s agriculture minister, together with several producers, came to Sweden on several occasions to assure people of the quality of the meat products from Ireland and to make efforts to disconnect Irish meat from the “mad cow disease” in Great Britain. Disconnection from the sources of crisis involves changing the position of the firms or products in the perceptual map of consumers. Some Swedish meat producers made a strong stand for their products after the crisis by a) disassociating Swedish meats from countries such as Great Britain and Ireland who were having the crisis and also by b) intensifying marketing efforts that expressively stated the quality of the Swedish meat. They created the notion that consumers are to ask for information about the country of origin when buying meat products.

As mentioned earlier, the example of connected relationships in this case utilizes the consumers’ perceptions towards meat from Ireland, Denmark, and Sweden. The answer clearly shows that people are more resistant to meat from Ireland and Denmark—although to varying degrees. Also, they preferred meat that originated from Sweden. However, the resistance seemed short-lived. In the second survey, the percentage of people which answered that they will buy less meat from the neighboring countries has gone down by fifty percent.

The results also indicate a connection to other products from Great Britain besides beef. At the outset of the media coverage, a significant amount of consumers were also negative towards other products from Great Britain. However, in the second survey, the connection is weaker. It could be argued that initial reactions fade, although the negative effects would have already caused damage to the business players. Even though the survey showed that consumers disconnect their initial feelings, this may nevertheless have two consequences. The first is that the relationship between business players such as Swedish importers and British suppliers or distributors might have been weakened. The Swedish importers, although knowing that their counterparts have very little to do with the incident, might nevertheless be in the position to use other connections to their customers. If their customers are less likely to take on British products, it will definitely have a domino effect and affect the importer’s relationships with their suppliers. As far as the second consequence is concerned, the original effect might also have some lasting effects on the customers. Given alternative choices, consumers might be inclined to choose a product from a country other than Great Britain.

The facts discussed also concern the matter of closeness between the connected players of the critical issue. One way of studying influence relates to the types of products or industry (Miller, 1993) and the country of origin (Lim, et al., 1994) of the connected players or their products in the perception of the consumers (Roth and Romeo, 1992; Olsen, et al., 1993). Products such as chickens, which are closely related to meat, became influenced more and longer than products such as cheese or cookies, which belong to another category. The impact for chickens from Great Britain was much larger than for chickens from Denmark. Countries
close to Great Britain, such as Ireland, had to face more problems than Denmark or Sweden in the beginning of the crisis. This reveals the fact that consumers can easily build up a perception map that includes factors such as geographic distance from the source of the event. Geographical closeness, that is, the location of the players in the geographical map of the consumer, determines the level of influence. Thus, factors such as geographic location and type of industry of a connected player determine the degree of impact. They also determine how fast consumers would change their perception when focal players have lost their influence.

The answers for the first two questions are interesting. One shows that the biggest loser in this whole affair is Great Britain, and the biggest winners are Swedish meat producers. Also, other countries such as Ireland seem to have a good chance of taking market shares from British exporters. Since people seem to price their purchases when shopping, it is clearly to Ireland’s advantage since prices here have been lowered. The interesting aspect is that mass media can create an initial situation that could be devastating for the country in question and also to neighboring nations. But the effect is not necessarily long-lived for all types of products. People seem to forget over time. In the age of mass communication, specific information might have a short life span. New information is always around the corner and old information can lose its edge. But the interesting aspect is that the perception after the release of one specific item of information is not completely similar to the perception before the release of that information.

**Adaptation**

The two survey results from two time periods show that the media has a vital and connected role in influencing consumer perceptions in international business. Its continuous coverage during a short period has a critical influence on how consumers might shape their opinions towards other players, whether they be nations, institutions, or politicians. In this specific case, namely the influence of the media on the consumers’ views about products from foreign nations, was devastating to affected countries at the outset, but of transitory nature in the end. Naturally, consumers in the second survey did not drastically change their views towards British meat—this could be the result of the fact that it is still prohibited to import or sell British meat. However, the marginal but significant consumer attitude shift from not-buying-at-all to would-buy-if-the-price-is-right is interesting. This manifestation is greater in the case of how consumers perceive meat products from Ireland, Denmark, and Sweden. Towards these countries the negative perception was almost dropped completely. Thus, over time, the indication is that media and players can negatively and positively affect the outcome of consumer perceptions. As a consequence of the immediate coverage by the media, most producers of meat from the surveyed countries suffered losses due to the reduced willingness of consumers to buy their products. But the subsequent reduction in the coverage has positively influenced the consumer’s willingness to buy meat products from the other three
countries, all but Great Britain. For the latter, consumers are willing if the prices are low. Given the present situation it could be argued that Ireland, whose meat products are relatively cheap, might be the economic winner—at least in the short run. Swedish producers will also gain due to the perceptual effect on consumers that Swedish meat keeps high quality standards. The survey shows that there is a general and lasting mistrust towards politicians. This effect is a result not only of the “mad cow syndrome” but also because of the daily reports of the mass media about misconduct or misappropriation of resources by political figures. These reports have to a greater extend programmed consumers’ minds that politicians are not to be trusted. These two studies conducted at different time intervals show how the dynamics generated by a critical incident create the process of adaptation, which changes the connectivity within a network. Some links become stronger while others become weaker.

**Conclusion**
The globalization of international markets for consumer products has created interdependencies among products and producers to the extent that an event in one country influences others, in spite of their innocence. Thus studies of such kind are important. While consumer marketing concerns itself with traditional concepts and network studies refer to industrial marketing, this study aims to bridge the gap. The analysis of the “mad cow disease” event and the use of loosely interconnected networks extends the boundary of other studies and contributes some knowledge for the study of consumer marketing. It creates the possibility to integrate networks into such studies. The use of networks permitted us to understand how products and players, which had not much to do with the original source of the problem, were influenced by the media, which is a non-business player. Moreover, we studied how consumers changed their perception over time when the influence was reduced.

This case study also lead to the crucial conclusion that the players are connected because of the perceptions of the consumers. The producers of chickens in Denmark or Ireland, who had no active connections with the beef producers in Great Britain, were affected since the consumers perceived a mistrust towards these products and reduced their purchasing of chickens from these countries. But cookies were less affected because they belong to a different food group. It can be concluded that the connections in the mind of the consumers might be a consequence of factors such as some foods belonging to the same industrial branch and/or country of origin.

Another conclusion is related to the aspect of trust/mistrust. In general, the aspect of trust/mistrust always plays an active role in normal relationships. It is the change in conditions of the incidents that activate it and cause it to dominate other factors such as price or quality. Thus, price and quality can dominate an exchange since there is a kind of state of equilibrium for trust/mistrust for all the products in the market. Any change in the aspect of trust/mistrust for one product will undermine the role of the factors such as price.
The case also illuminates different levels in trust/mistrust. In one specific issue, consumers may have trust that extends towards one level such as product, but have no trust in other levels such as the shops that sell the products, the distributor of the product, the politicians, or producers (Hadjikhani and Håkansson, 1996). The dimension of the levels in trust/mistrust also brings forth the interesting aspect of country of origin. When there is trust for products from a country because of the historical investment of the firms in a country, a specific firm coming from that country that has to face mistrust for its product, might appeal to the trust at the country level to disassociate itself from the mistrust. Consumers generally grade the products not on the existence of the product itself, but on the trust they have resulting from their own experiences or the experiences from friends when using these products. When marketing their products, companies use such connections to improve their market position.
References


Louglin, S., Palm, H. and Peters, B., 1996, Trust Relationships in a Network: A Case Study of the Meat Crisis, Department of Business Studies, Uppsala University. (mimeo)


