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With more than 9,000 trade publications (Fischer, 1997) in print circulating more than 22 million copies annually in the United States (*Folio magazine*, 1997), trade publications make up one of the largest genres of United States media. By some

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counts, more than three times as many trade publications are published in the United States than all other, nonindustry specific publications combined (Fischer, 1997). Perhaps more importantly, readers of trade publications include government and industry leaders who report finding them a more credible source of information about industry-related issues and events than the general-interest news media (Cole & Oettinger, 1978; Dobos, 1986; Kingdon, 1984).

Despite their size, reach and apparent influence as a media genre, trade publications remain one of the least studied and least understood types of media. One of the problems facing scholars trying to study magazines in general, and trade publications specifically, is developing a reliable typology by which such publications can be defined (Prior-Miller, 1995). Non-newspaper publications use such a variety of organizational, economic, distribution and content structures that attempting to define them by any of those factors fails to produce mutually exclusive definitions by which they can be reliability identified. For example, some publications are advertising-supported, others – such as newsletters – depend entirely upon circulation revenue, while still others use a combination of the two. In contrast to the newspaper industry, in what is generically termed the magazine industry, the choice of economic structure is not necessarily related to the publication's readership or its choices about content, distribution or organizational structures.

After reviewing issues involved in defining publication types, Prior-Miller (1995) argued that classifications based on publications' information functions should be used because they have greater ability to meet the test of mutual exclusivity than do other approaches to classifying non-newspaper publications. This study uses such information-function-based definitions. The term "trade publications" refers to publications that cover news of interest to managers and employees within specific industries – as contrasted with "professional publications," which would primarily serve members of a specific profession, such as doctors, lawyers or journalists. Additionally, the definition of trade publications used in this research includes all text-based publications that are written for a target audience within a specific industry, regardless of whether those publications are published in print, electronically, or both. The definition also includes publications that are economically supported entirely by advertising or entirely by

subscription payments, or some combination of the two. The definition includes publications that are generally available to the public, such as those that are distributed on magazine racks or through the World Wide Web, as well as those that are available only by direct request or by subscription, and those that have controlled circulation restricted entirely to individuals who work within a specific industry or are members of specific trade associations (Endres, 1994).

Using Prior-Miller's (1995) proposal for information-function definitions, the term "general-interest news publication" is used in this study to refer to daily newspapers and news magazines that serve a broader, less-focused readership that is not united by a common interest in a specific industry. The term "general-interest news media" is used to refer to both general-interest news publications and broadcast news outlets. Finally, the term "interest-specific publications" is used to refer to publications that target readers who share a common interest in a specific, nonbusiness or industry topic, such as some hobby or aspect of popular culture.

The research on trade publications that does exist tends to focus either on its performance as measured by traditional journalistic standards of fairness, objectivity and independence from advertiser influence (Hays & Reisner, 1990; Hollifield, 1997; Milavsky, 1993; Reisner, 1991); the uses and gratifications of trade publication readers (Dobos, 1986; Payne, Severn & Dozier, 1988); or trade publications' influence on the policy-making process (Cole & Oettinger, 1978; Hollifield, 1997; Kingdon, 1984; Linsky, 1986).

Other scholars have noted that the trade publications may also indirectly influence public opinion by bringing important industry issues to the attention of the general-interest news media (Nelson, 1984). Although scholars have suggested this key intermedia agenda-setting role for trade publications, there has been little systematic study of the question. Such research as has been done has looked almost exclusively at professional publications, such as medical or scientific journals, as opposed to the much larger group of trade publications that cover specific industries.

This project examined the possible intermedia agenda-setting role of trade publications by examining the emergence of a controversial agricultural issue of importance to both the general public and several industries.

Background

How the media influence public opinion and public policy has been the subject of significant study. Rogers and Dearing (1988a) identified at least 153 studies of the agenda-setting functions of the media, while Kosicki (1993) found more than 200 articles that used agenda-setting as the framework for studying the relationships between policy, media and public opinion. Substantial evidence has been found that indicates the media are a factor in shaping of the public's perception of important issues and in helping to place specific issues on the nation's political agenda. This evidence raises a key question: If the media do play a role in public and policy agenda-setting, which factors influence the setting of the media's own news agenda?

Although some scholars have examined this question, there has been relatively little research on media agenda-setting as compared to public opinion and policy agenda-setting (Rogers & Dearing, 1988b).

Intermedia agenda-setting

Even less is known about how different types of media influence each other — that is, the process of intermedia agenda-setting. Research shows that intermedia agenda-setting occurs in at least two ways:

1. Media influence other media of similar type or genre, such as when daily news' operations follow their competitors' coverage of a story (Altheide, 1982; Breed, 1950; Capo, 1983; Donohue & Glasser, 1978; Mazur, 1997; Reese & Danielian, 1989; Whitney, 1991).
2. Media follow the coverage of other genres of media when those other genres do a better job covering an area of interest (Caudill & Ashdown, 1989; Miller, 1978; Rogers, Dearing & Chang, 1991; Whitney, 1991).

Examples of cross-genre intermedia agenda-setting include *USA Today's* use of daily news broadcasts to help determine its front-page coverage (Prichard, 1987). Similarly, *The New York Times* has been found to lead other media types on international news, while the *Washington Post* leads on domestic news (Miller, 1978).

Interest-specific and professional publications – and the general-interest news media

Interest-specific and professional publications also have been shown to influence the agenda of the general-interest news media. *Rolling Stone*, which focuses on writing about popular music and is widely circulated to the public, was found to be an authority for counterculture, anti-establishment stories (Miller, 1978). Professional publications such as *Science*, *Nature*, the *New England Journal of Medicine* and the *Journal of the American Medical Association* were found to break stories in their respective fields that were subsequently picked up in the general-interest news media (Caudill & Ashdown, 1989; Dearing & Rogers, 1996; Rogers, Dearing & Chang, 1991).

While this handful of studies suggests that interest-specific and professional publications influence the news agendas of the general-interest news media, research has not yet examined whether trade publications serve a similar function in funneling news about industry developments into the mainstream media.

Trade publications and the mainstream media

Scholars examining public policy processes have found evidence that trade publications do have an agenda-setting function within the policy arena (Cobb & Elder, 1981; Cole & Oettinger, 1978; Hollifield, 1997; Kingdon, 1984; Linsky, 1986). Trade publications have been found to act as a channel of communication about industry-related political issues within industries, between industry leaders and policy makers, and within the policy community itself where policy makers are responsible for regulating a specific industry (Cobb & Elder, 1981; Cole & Oettinger, 1978; Hollifield, 1997; Kingdon, 1984; Linsky, 1986). But while evidence has been found for trade publications' policy agenda-setting function, there has been no examination of its possible public and intermedia agenda-setting roles.

Trade publications and general-interest news media

It might be expected that trade publications would influence the news agenda of general-interest news media. Media genre have been shown to make a difference in content (Hollifield, 1997; Cherry, 1985; Gussow, 1984; Mazur, 1981; Miller,

1978). Cole and Oettinger (1986) and Dobos (1986) noted that trade publication reporters are perceived by many readers to have greater topical expertise in the industry issues they cover than do general-interest news journalists covering the same industry. Trade publication reporters also presumably would have better sources in the industry they cover and would be likely to become aware of newsworthy issues, developments, and innovations emerging within that industry before general-interest news media journalists. Moreover, they presumably would be more likely than reporters in the general-interest media to recognize the importance of emerging industry stories, particularly when those stories were highly technical in nature.

These factors suggest that journalists in the general-interest news media who were assigned to specialized beats such as agriculture, business, and science, would monitor the trade publications serving those industries for story leads. Other factors, however, might temper the general-interest news media's use of trade publications as a source of stories. General-interest news media organizations often have greater organizational and personnel resources than do trade publications, which may offset the competitive advantage the trade publications would be expected to have as the result of their more concentrated focus. Industries or companies also may choose to feed stories to the general-interest news media in order to reach non-industry-related audiences such as potential investors.

Finally, previous research has found significant differences in the ways that trade publications and the general-interest news media cover industry-related issues and events, which might undermine the credibility of trade publications as a potential source of information and stories. Trade publications have been found to be less likely than the general-interest news media to report on the negative social and political implications of industry actions or proposals¹ (Hollifield, 1997; Milavsky, 1993) and are more susceptible to pressure from advertisers (Hays & Reisner, 1990).

These findings suggest that trade publications might be a source of intermedia agenda setting for the general-interest news media on highly technical stories or stories about industry developments or new innovations. They also suggest, however, that general-interest news media would be more

likely than trade publications to cover controversial social and political issues that arise as the result of industry actions or innovations.

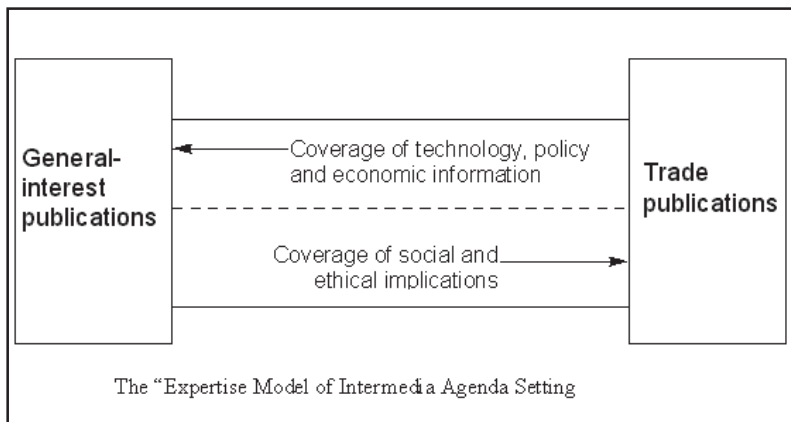
Expertise Model

This model of the intermedia agenda-setting relationship between trade publications and the general-interest news media suggested by the findings of previous research is illustrated in Figure 1. As demonstrated in the "Expertise Model," we would expect technological, political and economic information to flow to the general-interest news media from trade publications, while the coverage of the social and ethical issues that might result from industry actions or developments would flow from the general-interest news media to trade publications.

Research Questions and Exemplar

This study tested the Expertise Model by looking at trade publications' and general-interest news publications' coverage of the development in the mid-1980s of the growth hormone Recombinant Bovine Somatotropin (rBst). The hormone greatly increased milk production in dairy cows but also generated political and economic controversy. The study examined coverage of the development of rBst in four different kinds of media: general-interest national newspapers, general-interest national newsmagazines, national agricultural trade publications and national supermarket trade publications.

Figure 1



This project specifically investigated two issues:

1. Do trade publications influence general-interest news publications in their coverage of economic and technology issues dealing with the trade publications' specific area of expertise?
2. Do general-interest news publications influence coverage of ethical and social issues about economically valuable innovations in industries that are within trade publications' area of expertise?

rBst was chosen as the exemplar for this study for several reasons: It was an important industry and science story and had social, ethical and economic sub-issues. The recombinant hormone represented a major scientific and technological innovation, as well as a significant new product for the companies that developed it. It was hailed by scientists and large dairy producers as an innovation that would improve production efficiency. Small dairy producers, however, feared that rBst would increase the existing glut of milk on the market, ultimately driving small producers out of business. Thus, the development of rBst created an economic controversy **within** the dairy industry.

The innovation also created a national political firestorm over rBst's possible negative health effects on human consumers of milk. This health issue was widely covered in both the general-interest news media and agricultural trade publications. The controversy led to an extensive delay of FDA approval of the hormone. This debate over the possible impact of rBst on food safety also had a direct impact on the grocery industry.

The possibility for commercial development of rBst began when a paper based on research done at Cornell University on rBst's impact on lactating cows was published in May of 1980 by the *Dairy Science Journal* as a part of the American Dairy Science Association's Annual Meeting (Peel, Bauman, Gorewit, & Sniffen, 1980). The publication of the research provided an identifiable point from which to start looking for media coverage of the breakthrough and its subsequent controversies.

Hypotheses

Miller (1978) and Dearing and Rogers (1996) have found that interest-specific and professional publications influence

the general-interest news media when the more specialized publications are perceived to have greater "expertise." Therefore:

H1: Agricultural trade publications will have reported the development of rBst before national general-interest news publications reported the story.

H2: Agricultural trade publications will have reported the economic impact of the adoption of rBst on small farms versus large farms before national general-interest news publications reported this sub-issue.

It has been shown that the general-interest news media devote little attention to the downside of new innovations (Priest, 1995), and trade publications devote even less (Hollifield, 1997). Therefore:

H3: National general-interest news publications will have reported the social implications (human-health issue) of adoption of rBst for use in lactating cows before agricultural trade publications.

Hollifield (1997) found that trade publications serving industries that were affected by, but not directly involved in, a new innovation were more likely to cover the social and economic implications of that innovation than were trade publications that covered the industry responsible for the innovation. Therefore:

H4: Supermarket trade publications will have covered the social and political issues (human health) connected with rBst before agriculture trade publications.

However, because the national media such as the *Washington Post* and *New York Times* tend to lead coverage of issues in other media (Miller, 1978), it is likely that national general-interest news publications carried the social and ethical sub-issues, or attributes, before supermarket trade publications. Therefore:

H5: Supermarket trade publications will have covered the social and political issues (human health) after the national general-interest news publications.

Methodology

The study was designed as a content analysis of four types of publications: dairy trade publications, supermarket trade

publications, national general-interest daily newspapers and national general-interest weekly newsmagazines. In all, four trade publications and five national general-interest news publications were sampled. Printed issues and/or electronic full-text databases were used to identify stories about rBst that had been published in the sampled publications over a 15-year period. Content analysis was used to identify when stories about three different sub-issues related to rBst appeared in the trade publications and the general-interest news publications. The amount of coverage each type of media gave the sub-issues also was examined.

Each genre of media was defined as in *Ulrich's International Periodicals Directory for 1996 (Bowker's International Serials Database, 1996)*. For this study, dairy trade publications and supermarket trade publications were chosen from *Ulrich's Guide to Periodicals* based on circulation and first date of publication. To be chosen for the sample, the magazine (a) had to be listed as a trade publication, (b) had to be published since at least 1980 and (c) had to be one of the three largest-circulation trade publications in its industry sector as listed in the guide.

The national dairy trade publications chosen were *Dairy Herd Management* (circulation 106,364), and *Hoard's Dairyman* (circulation 130,000). The national supermarket publications were *Supermarket Business* (circulation 73,535) and the *Progressive Grocer* (circulation 70,313).

Based on Reese and Danielian's (1989) research, the general-interest news publications chosen for this study were the *New York Times* and *Washington Post*, and the national general-interest newsmagazines were *Time*, *Newsweek*, and *U.S. News & World Report*.

Stories that mentioned bovine somatotropin, rBst, Bst, bovine growth hormone or BGH in the headline, subheads, lead or pull-quotes were chosen for the sample. Stories that had feature-type leads or headlines but were obviously about rBst (e.g. mentioned "this hormone" or the effects of rBst in the headline, lead, sub-heads or pull-quotes) also were included.

A multi-stage sampling method using both Nexis' on-line database and back issues of publications yielded 270 stories for this content analysis. Stories in the *New York Times*, *Washington Post*, *Newsweek*, *Time*, *U.S. News and World*

Report, Supermarket Business, and Progressive Grocer were called up on the Nexis full-text electronic news database. Nexis does not index *Hoard's Dairyman* and *Dairy Herd Management*, so all copies of those magazines from 1980 until 1995 were analyzed from paper copies to find stories matching the rBst story criteria as previously listed.

Coverage of three different sub-issues that emerged in the rBst story was coded: the development of the hormone, the economic controversy within the dairy industry that developed, and the social and political debate that arose about the possible effects of rBst on human health. In the technological development category, coders were instructed to look for stories about the invention of the technique (recombinant technology) or development of rBst. Only those stories about the companies developing rBst, Monsanto, Eli Lilly (Elanco), Upjohn or American Cyanamid, and those that mentioned the recombinant technology were counted. In the intra-industry controversy category, coders were instructed to look for comparisons between how rBst might economically impact large and small dairy farms respectively. In the social/political issues category, coders looked for stories about the human-health aspect of rBst, whether positive, negative, or neutral.

Intercoder reliability across four coders was established using Holsti's (1969) reliability coefficient. In each of the three categories, an intercoder reliability coefficient of .98 or higher was achieved, based on the coding of 20 stories.

Findings

Examination of the data showed that the different types of publications picked up the rBst story at different times in the 15 years covered by the study. General-interest newspapers picked up the story first in March 1981 (Table 1). The *New York Times* story dealt exclusively with Monsanto and Genentech's development of the recombinant technology to make rBst. Nine months later, the dairy trade publications reported the original Cornell research that had started rBst development. However, it was not until 1989 that the general-interest newsmagazines and the supermarket trade publications jumped into the story.

Although these time lags between publication do not seem to indicate agenda-setting, it should be noted that Rogers, Dearing and Chang (1991) found that there usually is a 13- to

| Table 1 Number and Percent of Stories with Mention of Each Variable by Genre | | | | | | |
|---|--------------------------|----------------|----------------------------|----------------|------------------------------|----------------|
| Issue | | | | | | |
| Health | | | Development of rBst | | Large vs. small farms | |
| Type of publication | Number of stories | Percent | Number of stories | Percent | Number of stories | Percent |
| General-interest newspapers | 47 | 65.3 | 28 | 38.9 | 26 | 36.1 |
| Agricultural trade publications | 54 | 28.6 | 11 | 5.8 | 12 | 6.3 |
| General-interest newsmagazines | 3 | 60.0 | 3 | 60.0 | 1 | 20.0 |
| Supermarket trade publications | 1 | 20.0 | 1 | 20.0 | 0 | 0 |
| Total | 105 | 38.7 | 43 | 15.9 | 39 | 14.4 |

*Percent columns and rows do not add up to 100 percent because some stories did not mention any of the categories and some mentioned more than one.

17-month lag between the time a breakthrough is reported in the scientific community and the time the story first appears in the general-interest news media. In the case of rBst coverage, the lag between the date rBst development was first reported at a scientific conference and when the *New York Times* first reported on the hormone was less than the 13-to 17-month lag found by Rogers, Dearing and Chang. However, the trade publications reported its first rBst story long after the 17 months.

Of the stories about rBst covered in all types of publications examined in this study, the stories about the possible impact of the dairy hormone on human health accounted for the highest percentage of mentions in this sample (105 of 270 articles). The agricultural trade publications carried more stories that mentioned the human-health issue than did the general-interest newspapers (Table 2), but those stories actually constituted a smaller percentage of the agricultural and supermarket trade publications' total coverage of rBst than they did the general-interest news publications' coverage of the hormone. In all, 65 percent of the rBst stories in the general-interest newspapers and 60 percent of the rBst stories in the general-interest newsmagazines dealt with the human-health issue, while only 28.6 percent of the agricultural trade publications' rBst coverage and 20 percent of the supermarket trade publications' reporting mentioned the controversy.

The economic issue of large versus small farms and which would most benefit or be harmed by the technology was found in 36.1 percent of the coverage of the general-interest newspapers and in only 6.3 percent of the agricultural trade publications' coverage. Only one story in the general-interest newsmagazines mentioned this issue, and the supermarket trade publications ignored it entirely (Table 2).

Table 2 *First Mention of rBst by Genre with the Year and Month Gap Indicated Since First Publication*

| Genre | Date | Year/month gap |
|---------------------------------|----------|----------------|
| General-interest newspapers | 3/16/81 | |
| Agricultural trade publications | 12/01/81 | 0/9 |
| General-interest newsmagazines | 5/29/89 | 8/2 |
| Supermarket trade publications | 9/01/89 | 8/6 |

For the development of rBst, nearly 40 percent of the general-interest newspaper stories mentioned the companies developing the drug for sale or the process, while only 5.8 percent of the agricultural trade publications did the same. The general-interest newsmagazines covered the topic three times in their coverage, and the supermarket trade publications covered it once.

H1: The first hypothesis that coverage of the development of rBst would be led by the industry-specific trade magazines was not supported (Table 3). For rBst development, coders were instructed to look only for mention of the companies developing the drug and its delivery system. With this definition of rBst stories, the first mention was found in the *New York Times* in March 1981, almost a year after Dr. Dale Bauman presented his findings to the dairy research field.

The first mention of rBst development in the dairy trade publications examined appeared within 12 months after the *New York Times* article. However, the trade publication story focused not on the companies that were developing and marketing the hormone, but rather on the initial research by Peel et al. (1980) and on how the drug might be used by dairy farmers. The dairy trade publications did not mention the companies that were developing the drug until 1986 — nearly five-and-a-half years after the first *New York Times*’ story on the subject. However, regardless of which definition of the story was used for coding, the *New York Times* still beat

Table 3 *Date of First Mention of rBst Development and Subsequent Publication by Genre with Year/Month Gap Since the First Mention*

| Genre | Date | Year/month gap |
|---|---------|----------------|
| General-interest newspapers | 3/16/81 | |
| Agricultural trade publications | 8/1/86 | 5/5 |
| Supermarket trade publications editorial | 9/1/89 | 8/6 |
| General-interest newsmagazines | 12/6/93 | 12/9 |

the agricultural trade publications in breaking the story about the technological innovation of rBst. Thus, this hypothesis was not supported.

The supermarket trade publications examined did not cover the development of rBst until eight years after the first *New York Times* story, and that mention came in an editorial about efforts to win FDA approval of the hormone. The general-interest newsmagazines did not pick up the story until 12 years after the *New York Times* broke it.

H2: The second hypothesis that the agricultural trade publications would have reported the intra-industry controversy over the possible impact of rBst use on small dairy farmers before the general-interest news publications also was not supported. *The Washington Post* picked up that angle first in March 1985 (Table 4). It was not until nearly two years later that the dairy trade publications first covered the issue. General-interest newsmagazines waited five-and-a-half-years — until 1990 — to cover the economic impact story. Supermarket trade publications did not mention the issue at all.

The rejection of Hypotheses 1 and 2 suggests that trade publications do not act as an expert source of news stories for the general-interest news publications on highly technical stories or emerging issues. That appears to be the case even when, as in the case of Hypothesis 2, the story is about an economic controversy within the industry covered by the trade publications.

Table 4 Date of First Mention of Large Versus Small Farms Issue and Subsequent Publication by Genre With Year/Month Gap Since First Mention

| Genre | Date | Year/month gap |
|---------------------------------|---------|----------------|
| General-interest newspapers | 3/27/85 | |
| Agricultural trade publications | 2/1/87 | 1/11 |
| General interest newsmagazines | 9/24/90 | 5/6 |

H3 and H4: Both Hypothesis 3 — that general-interest news publications would report the social implications (human-health issue) of adoption of rBst before agricultural trade publications — and Hypothesis 4 — that the supermarket trade publications would have published stories about the human-health questions before the agriculture trade publications — also were not supported. *Dairy Herd Management* was first to report on the human-health question in a story that appeared in December 1985. By contrast, the *Washington Post* followed the trade publications on the human-health impact story six months later (Table 5)

Table 5 *Date of the First Mention of Human-Health Issue and Subsequent Publication by Genre with Year/Month Gap Since First Mention*

| Genre | Date | Year/month gap |
|---------------------------------|---------|----------------|
| Agricultural trade publications | 12/1/85 | |
| General-interest newspapers | 6/23/86 | 0/6 |
| General-interest newsmagazines | 9/24/90 | 4/9 |
| Supermarket trade publications | 5/1/94 | 8/5 |

Not until September 1990 — five years later — did another of the major general-interest news publications sampled in this study, *U.S. News and World Report*, cover the health question. Finally, the supermarket trade publications waited until after the first sale of the hormone in 1994 before writing about the human-health issue. That story, which appeared in *Progressive Grocer*, was the only one on the human-health question that appeared in the supermarket trade publications examined.

This finding that agricultural trade publications reported the human-health issue before national general-interest news publications and/or before the trade publications serving other affected industries appears to contradict earlier findings by Hollifield (1997) and Milavsky (1991) that trade publications generally are reluctant to report on the negative social or political implications of industry-sponsored innovations or initiatives. Certainly the

finding indicates that trade publications do not always wait to cover such issues until after the general-interest news media have raised them.

However, closer examination of the actual coverage of the health issue in the agricultural trade publications suggests the finding may not be a contradiction of earlier research. Although the agricultural trade publications were the first to write a story about possible effects of rBst on human health, the story was written to argue that rBst would have no effect on humans. Given that the agricultural industry had previously fought battles over the food-safety impact of new production technologies (Duhe', 1993), the timing of the human-health story might be interpreted as an industry preemptive strike against a controversy that appeared likely to emerge in the political arena.

H5: Hypothesis 5, that supermarket trade publications would publish stories about the social implications (human-health issues) of the development of rBst after the national general-interest news publications, was the only hypothesis in the study that was supported (Table 5). For the most part, the supermarket trade publications in this sample did not enter into the rBst debate. Both the agricultural and the general-interest news publications published information about rBst's effects on human health before the supermarket trade publications.

Apparently the supermarket trade publications in this sample were not very concerned about rBst's effect on milk and dairy sales, offering their readers only scant coverage of a potentially important economic and political controversy for their industry.

Discussion and Implications

The failure of the data to support the first two hypotheses shows that the most powerful general-interest news publications did not use trade publications as a source of information about new developments in the agricultural industry in the case of rBst. Indeed, the findings suggest that the most powerful daily news organizations such as the *New York Times* and *Washington Post* are, at least in some cases, better positioned than trade publications to cover breaking news within

an industry. That appears to be the case even when the news is largely internal to a specific industry and not necessarily directly relevant to the general public, as was the case with the question about the possible impact of rBst on small dairy farms.

One possible explanation for the fact that the general-interest news publications beat the agricultural trade publications on the rBst story could be that the companies that were developing rBst fed the story to the large daily news organizations. If so, it suggests the corporations developing the hormone were more intent on informing stockholders about their potentially profitable new technology than alerting potential customers in the agricultural industry to the product breakthrough.

Support for this explanation is suggested by an examination of the sources used by the *New York Times* in its first story on rBst: the president and a senior vice president of Monsanto and Genentech ("Genentech has cattle hormone," 1981). Additionally, Monsanto reportedly invested a great deal of capital in rBst research and development in the decade before the breakthrough (Duhe', 1993), making a return on that investment very desirable.

It also is possible, of course, that large general-interest news publications picked up the story through their own direct contacts with these major technology corporations or the stock analysts who follow those corporations. Similarly, it could be that the dairy trade publications simply missed the story.

These possible explanations — corporate information subsidies and enterprise reporting or lack thereof — all suggest that organizational resources are more important than topical expertise and focus in enabling news organizations to break news about business and industry. Readers, therefore, may be mistaken in their perceptions that trade publications are a more informed and reliable source of information about an industry than is the general-interest news media (Cole & Oettinger, 1978; Dobos, 1986; Kingdon, 1984).

As interesting as the failure of the agricultural trade publications to break the rBst development story may be, their failure to cover the economic controversy that was generated within the dairy industry by the new technology is even more striking. The fact that the *Washington Post* discussed the possible negative economic impact of the milk growth hormone on small dairy farmers before agricultural trade publications suggests further support for previous research that showed

trade publications avoid reporting on the negative implications of industry innovations and initiatives.

Additionally, the finding may indicate a shift in the market orientation of agricultural trade publications. Hays and Reisner (1990) reported that agricultural trade-publication editors feel greater pressure from advertisers than do their counterparts in the general-interest news media. Moreover, agricultural trade-publication editors have suggested that they are under increasing pressure from both advertisers and their publications' corporate owners to provide content that attracts the owners and operators of large farms — as opposed to small farms — as readers, because these owners and operators are more lucrative for the publications' advertisers (agricultural trade magazine editor, personal communication, October 1997).

Clearly, there is room for research that examines the question of whether industry — and particularly agricultural — trade publications are shifting the nature of their publications' content in response to advertisers' demands. In the age of the "information economy," access to competitive information is an increasingly important factor in the economic success of businesses of all sizes. Thus, if industry-specific trade publications are shifting their coverage away from news and information that is relevant to small producers in order to satisfy advertisers, it raises interesting questions about media performance and its impact on our economic system.

Finally, the failure to find support for most of the hypotheses in this study makes clear that the Expertise Model, which was based on the findings of previous research into trade publications' performance, does not reflect the relationship between trade publications and the general-interest news media's reporting agendas in all cases. This, then, raises questions about the factors that may shape or alter the relationships suggested by previous research.

It is possible, for example, that the flow of information between trade publications and the general-interest news media may vary according to the type of trade publications in question. In this study, trade publications specific to a small subsector of the agricultural industry, the dairy sector, were studied. Newspaper and news magazine reporters might be more likely to read trade publications that cover multiple sectors of the industry, rather than the highly specialized trade publications that were used in this study.

The role of information subsidies between industry and the trade magazines and general media also deserves more study. The findings from this project raise interesting questions about the relationship between companies and the audiences they seek for important information about their operations, as well as their relationships with different types of media as they try to deliver that information to those target audiences.

Evidence from previous research strongly suggests that journalists use more specialized publications that have greater expertise in topical areas as a source of information, insight and story ideas (Reese & Danielian, 1989; Miller, 1978; Weiss, 1974). Moreover, even casual observation in newsrooms confirms that suggestion, as sports writers can be found reading publications such as *Sports Illustrated*, business writers reading magazines like *Business Week*, *Restaurant News*, etc. What remains unclear is the degree to which interest-specific, professional and trade publications actually serve to set the agenda for general-interest news publications, and the factors that may affect that intermedia agenda-setting relationship.

Keywords

Trade Press, Agenda-Setting, Mainstream Media, Expertise.

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Endnote

¹Research has shown that publications of all types devote only a small percentage of their coverage of new technology developments to the social and ethical implications of those developments (Hollifield, 1997; Milavsky, 1993; Priest, 1995). A 1994 study conducted by Priest (1995) found that newspaper coverage of the ethical and social issues surrounding rBst was weak. Of the 600 arguments presented in 132 articles, 35 percent concerned the benefits and 48 percent concerned economics. But, only 7 percent addressed environmental issues and only 8 percent discussed ethics. Moreover, comparative research has shown that trade publications that directly serve the industry responsible for an innovation are even less likely to cover the negative implications of the development than either the general-interest news media or trade publications that serve other industries that might be affected by the innovation (Hollifield, 1997).