

causal variables more than situational variables" (p. 47). Since population growth is a situational force, this model suggests why journalists might attribute urban sprawl to developers rather than to population growth.

The shallowness of media coverage has attracted scholarly comment as early as Lippmann (1922), who pointed out that journalists must deal in stereotypes because of deadline pressures and readers' preference for simplicity. Many other scholars have commented on the shallow, episodic nature of the news. "The news we are given is not fit for a democracy; it is superficial, narrow, stereotypical, propaganda-laden, of little explanatory value, and not geared for critical debate or citizen action," Bennett (1988, p. 9) wrote. Linsky (1988) noted, "The event-orientation of news is a particular problem, for it steers coverage away from ideas and context and does nothing to encourage the drawing of connections between stories" (p. 216).

Entman (1989) identified three production biases common to media stories: 1. simplification—audiences prefer the simple to the complex; 2. personalization—individuals cause events rather than institutional, historical or other abstract forces; 3. symbolization—audiences want dramatic action, intriguing personality, and stirring slogans, and the media provide them. Bennett (1988) offered a similar list of weaknesses in media content: emphasis on people rather than process, and on crisis rather than continuity; isolation of stories from each other, and official assurances of normalcy.

In sum, many existing theories can explain the consistent tendency by journalists to avoid mentioning population growth as a source of the problems they cover. Without further evidence, we really cannot tell. Graber has called for more study on the etiology of content: "Why are particular events selected from the large number of events that might be publicized and why are events cast into particular story frames that supply the interpretive background by which the story is judged?" (1989, p. 146). That is the point of Part II of this study: to find out why journalists neglect the causal role of population growth in framing their articles.

Method

The author conducted telephone depth interviews with 25 journalists at their work site to determine why they had omitted the causal role of population growth from recent stories they had written. These interviews included several questions asked of all respondents, but also asked the interviewees in an open-ended fashion to comment on the role of journalism in providing information about causality in environmental stories.

Journalists interviewed represented a purposive sample: writers

from U.S. newspapers who had done articles accessible in Lexis-Nexis using the same keyword searches used in Part I of this study (endangered w/2 species, water w/2 shortage, urban w/2 sprawl). All interviewees had written the stories under discussion within the preceding six weeks, and all interviewees had omitted population growth from the story frame.

A purposive sample was chosen for several reasons:

- It was necessary to call journalists who had written recently about environmental problems. Journalists are unlikely to be willing or able to discuss details of stories they wrote 18 months ago. Even the current-news library within Lexis-Nexis contains articles so many months old that their details would have been long forgotten by the journalists who produced them.

- The researcher sought a geographic diversity of reporters. Because California (population 31 million) produces so many stories about environmental degradation, and because California newspapers are well-represented in Lexis-Nexis, a randomized sample would likely have yielded a preponderance of California reporters. A purposive geographic selection of journalists produced a more diverse set of perspectives, since the interviewed reporters should represent different educational backgrounds, social circles and within-state political perspectives. A summary of the geographic origin of the interviewed journalists is provided in Figure 1.

- This study does not seek to generalize from the sample to the overall population of reporters, as a probability-sample survey would. It seeks psychological depth rather than sociological breadth, by seeking patterns to reporters' comments about the nature of their work.

As Wimmer and Dominick (1983) suggest in their book on research methods, depth interviews frequently use small purposive samples and a nonstandardized interview format. Hence they lack generalizability. But this chapter seeks to glean information about sensitive subjects—possibly, journalistic taboos—and for that purpose depth interviews are ideal.

Interview Format

In opening the discussion, the researcher identified himself and stated the study was about how journalists depict causality in environmental stories. The researcher assured the journalists that they would not be identified in any report resulting from the study. After mentioning that he had obtained their stories and bylines through a Lexis-Nexis scan, the researcher recounted a few details of each writer's story to establish common ground with the respondent. The researcher then asked an open-ended question: "What would you say was the cause of [the problem discussed in

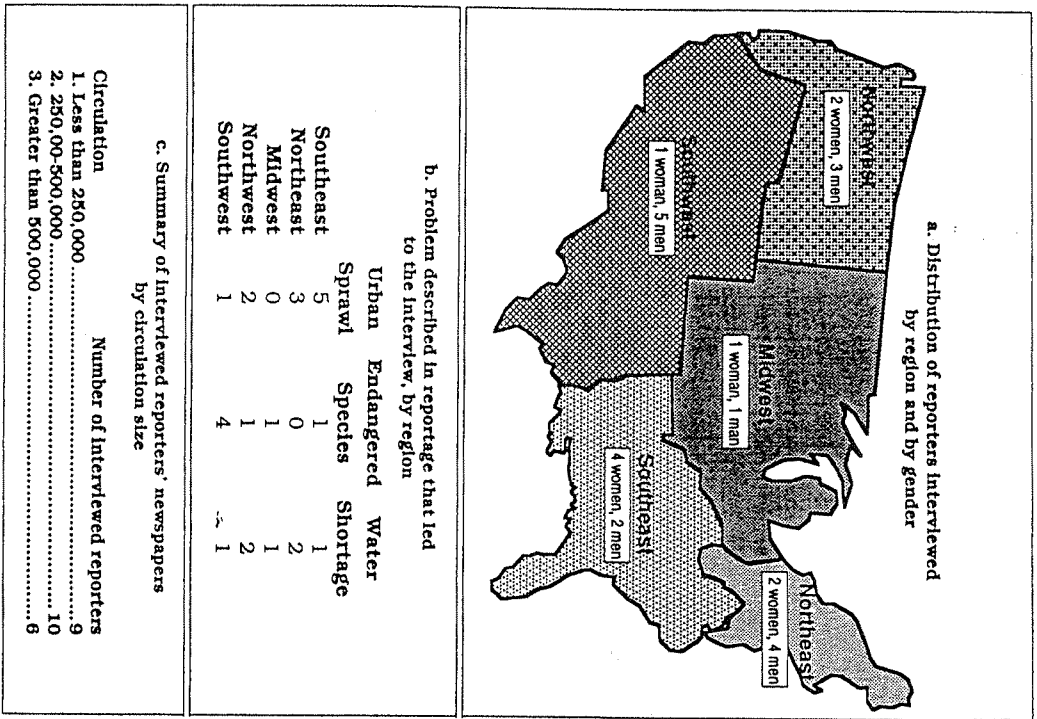


FIGURE 1. Summary of sample of interviewed journalists.

your story?]" If this answer produced no mention of population, the researcher asked a second open-ended question: "Can you think of any other causes? Perhaps at a deeper level of causation?"

If two open-ended questions produced nothing about the causal role of population growth, the researcher volunteered it by saying: "Many environmental writers say that population growth is one of the ultimate causes

of environmental problems like [the problem discussed in the story]. Do you think that's true in your story?" If the journalist agreed that population growth was indeed a causal factor (but had not volunteered such information unaided), this offered two possible interpretations: either the journalist was not well attuned to the environmental effects of population growth, or the journalist felt the subject was too controversial to broach (a spiral of silence effect). Further questioning sought to clarify how the writer stood on the issue. If the writer showed familiarity with the population issue, this was taken as evidence of a spiral of silence effect. If the journalist seemed unaware of a connection between population growth and environmental problems, this was interpreted as lack of knowledge.

If the respondent implicated population growth in either open-ended question, or in agreement with the researcher's suggestion, the researcher then asked: "Would it have been out of place to have mentioned this in your story?"

The researcher then sought to determine why the reporter had omitted population growth in framing the story. The researcher also sought the respondent's views on the population-environment connection, and the role of journalism in informing the public of causality in reporting environmental problems. One other standard question for each interview was: "If you had interviewed a source for the story in question, and that source had implicated population growth as a source of the problem, would you have used that quote?"

Results

The interviews produced little support for the "ignorance hypothesis"—the possibility that journalists are unaware of the causal role of population growth in precipitating local environmental problems. In response to an open-ended question, eight of the 25 volunteered that population growth was a source of the problems they wrote about. Eleven more agreed that population was a likely cause, when the researcher offered the idea. These 11 had the benefit of aided recall, but only two of them seemed to be unfamiliar with the population-environment connection.

Six interviewees discounted that population was a major factor in the problem they had described in their stories—and they were possibly correct, within their immediate environmental context and time frame. Areas with stable or even declining populations can still experience pressure on land and water resources through increased consumption; for example, a large cohort of baby boomers might attain affluence sufficient to build new homes on larger lots or buy second homes.

Generally, though, the surveyed reporters seemed aware of the role that population growth played in precipitating environmental problems.

The interviews gave little evidence of any "hegemony theory" effect. That is, reporters made no mention of being influenced by real estate advertisers or other powerful interests. But this is to be expected, since hegemony theory postulates that reporters' obedience to the dominant ideology is unconscious and unexamined. A study of this nature, which relies on self-reportage of motives, would be unlikely to reveal hegemonic effects.

The interviews show some evidence for the "spiral of silence" explanation: many interviewed reporters felt that population is a hot issue, better left unmentioned. Several reporters volunteered this in conversation. One recalled the controversy that ensued when the *Philadelphia Enquirer* advocated Norplant as a solution for local teen pregnancy, which created charges of racism by area black people. Another reporter admitted of population, "It's such an incendiary issue. If you say, 'It all comes down to too many people,' you'll have everybody from Operation Rescue to the Catholic Church calling you." Another said, "We as journalists are nervous to discuss population." Another admitted, "Most of us [reporters] wait until somebody says it." In other words, the reporter felt he could not broach the issue in an interview without recriminations. This last statement implies that a spiral of silence is at work. Many journalists interviewed for this study felt the population issue was too controversial for them to bring up in an interview. The media are commonly acknowledged to serve as legitimizers for what can be said safely (Berger & Luckmann, 1966; Gans, 1979; Noelle-Neumann, 1984). But these interviews suggest that reporters themselves are affected by possible negative repercussions from pressure groups. Thus a spiral of silence about population growth may be maintained by determined pronatalists, immigration advocates, and intimidated journalists.

Further evidence of a spiral of silence is the fact that several reporters who did not volunteer population growth as a cause of local problems in response to open-ended questions subsequently admitted deep concern about population. After the researcher broke the silence and mentioned that some environmental writers feel population growth drives environmental problems, many interviewees who had not volunteered such a perspective in an open-ended format voiced similar feelings. One woman reporter mentioned that she had chosen not to have children in part from environmental concerns—yet she did not mention population as an environmental variable when asked an open-ended question. Two other journalists who avoided mentioning population in response to open-ended questions later said they address population every few months in stories

Both were quite familiar with details of the issue. But they did not initially volunteer that familiarity to the interviewer.

Finally, of course, none of the interviewees had mentioned population in the stories they wrote. Such a discrepancy indicates that reporters are not putting all they know about causality into their story frame. As Noelle-Neumann put it, it is easier to remain silent and run with the pack. But the taboo nature of population growth was not the chief reason journalists mentioned for avoiding the issue in their reportage. Instead, most said population was simply beyond the bounds of their story.

The Narrative Imperative and Causal Dissociation

The reason journalists most consistently mentioned for avoiding the population issue was not anticipated in the researcher's initial series of questions. That is, when asked to comment on why they had omitted population growth from their story, most interviewed journalists said that population growth simply did not fit within the event frame that served as their news peg.

Many writers (Bennett, 1988; Entman, 1989; Hart, 1987; Gans, 1979) have commented on journalists' preference for the dramatic over the explanatory, the personal over the situational. Many others have commented on the need for journalism to compress complex reality into narrative form (Darton, 1975; Paletz, Reichert, & McIntyre, 1971). In her study of the sociology of newswork, Tuchman (1978) focused on organizational forces as prime mover of the news product, but she admitted that story forms have considerable power to shape the news:

Attributing to news narratives the power to raise certain questions and to ignore others may seem to digress from this book's argument. Rather than demonstrate that news is a product of specific ways of organizing newswork, it suggests that the formal characteristics of the product of newswork guide inquiry. The power of forms cannot be dismissed (p. 104).

McCartney (1987) even applied a centuries-old typology of fictional conflict situations to journalistic stories, and discovered that many classic conflict forms could be discovered in modern journalistic stories.

McCombs, Einsiedel, and Weaver (1991) suggested that news is shaped by journalists' training, by bureaucracies of news organizations, and also by "the traditions of journalism as a genre of mass communication" (p. 26). They added that structural biases "arise from a very nature

of journalistic reporting and writing. The narrative styles of journalism shape the configuration of facts reported in the news" (p. 30). They added, "To a considerable degree, what each reporter sees is framed by the genre in which he or she writes" (p. 34).

This narrative imperative of news pushes an invisible, slow, impersonal social force like population growth out of the story frame. If they ascribe blame for, say, urban sprawl, journalists tend to blame visible, personal causes—e.g., land developers—without ever questioning the social and economic forces that make it profitable for land developers to replace forest with suburb. If they ascribe blame for water shortages, journalists tend to blame Mother Nature: when will the drought end?

The working principles of storytelling create causal myopia in news stories. Daily events reporting must have a news peg, an event that gives the writer premise for writing the story. In terms of space and time, the story must be framed fairly tightly around the event. Reporters cannot "go global" with a local story, for their space is limited in column inches to tell the story. Many of the interviewed reporters commented on this limitation when discussing their role as local journalists. Each of the following comments is from a different journalist:

- "When you come to something like population growth, it's difficult for a community to say, 'We want to take on population growth.' I was staying close to the event. If it were a big feature on what [my area] is going through, then it would make sense to discuss population."
- "My story was more of a historical piece [on how a small community had changed]. For that approach [a discussion of population growth] wouldn't have worked."
- "Often daily journalism doesn't include the broad context; you find that in the op-ed pages. Journalists are self-conscious about appearing intellectual; they don't want to appear self-indulgent."
- "It's difficult to think you're going to have a forum as a local reporter to talk about a global issue like population."
- "The press tends to be crisis-oriented and has a hard time getting a handle on issues that are big."
- "I don't think globally when I write a story; I think, 'what do the people in this town want to know about?'"
- "It's not journalists who are the problem [for omitting causality]. It's the editors. They don't want us to challenge the reader with unpopular ideas."
- "It is the role of journalists to include population growth as a source of problems. But on a daily story, you can practically never do that. On a daily story, it's almost impossible. If I were to try, my editor would probably

want me to spend more time defining terms, and we don't have space for that."

- "Population doesn't ring a bell with me in the realm of causality. Maybe on the global picture, but in terms of a developer putting in a golf course, no."
 - "I've got 20 inches to explain why a garter snake is endangered. There's no room for population growth in the story. Sometimes I write about population in general terms."
 - "Population is beyond this story as far as I have learned. We sometimes address the population issue on its own terms."
 - "The global perspective is not out of line, it's just not what got me into this story. This was more about politics than the environment."
 - "[Mentioning population] probably requires a look at the bigger picture, a more national scope. As [newspaper] space becomes constricted overnight and editors were looking for places to cut, [population] would be the first thing to go."
 - "The immediate problem was the drought. They [local officials] were just waiting to see what happened. Population didn't play into that story. We cover fires, basically. You come back later on—about once every six months—and say, here's the trend. But you've got so many other topics."
 - "Population as a topic is not a taboo; we have done stories on population in the past. It is a matter of stopping to think about it when you write a story. This [story in question] was written in about an hour on a laptop in my kitchen about 10 p. m., and it's not one of my best efforts."
 - "I don't know that you can get [population] into the story. There are space limitations and the conventions of journalism are such that you have to keep your paragraphs germane to one another. If you're talking about wildlife habitat and then all of a sudden you're talking about world population growth, you've gotta explain to an editor how you got there and use a lot of paragraphs to do that."
 - "Maybe Americans have a reluctance to talk about [population]. I don't know when, if ever, they'll be ready. Maybe the next generation will actually bring up population as a topic for discussion."
- The implications are clear from these quotes. Local journalism cannot easily connect community events to slow, impersonal national or global causes. Even those interviewed journalists who were very savvy on environmental issues, who were very aware of the effects of population growth, admitted that including it in event-driven stories is frequently impossible. Space limitations are always a concern, and editors do not tolerate journalists' straying too far from the story line.

Although depth interviews lack generalizability, they are indeed useful in exploring sensitive issues of journalists' motivation and intention. Naturally, self-reporting cannot capture all of journalists' reasons for why they frame stories in a given manner. People cannot verbalize every motive for what they do. But the interviewed journalists showed considerable consensus in suggesting that population growth is too broad to fit in a story framed tightly around a local environmental problem. Most respondents were acutely aware of the boundaries separating local and national reporting, and what this means for the work they do. Taking a national perspective on a controversy over a local land development would be seen as egotistical, intellectual, and beyond the journalist's job description.

However, despite the forces constraining journalists from mentioning population growth, environmentalists may have an opportunity to affect causal framing of environmental problems. When asked whether they would use a quote connecting environmental problems to population growth, if their sources offered such a perspective, 16 journalists interviewed for this study indicated they would. Five said they would probably not include such a perspective, and four were unsure, allowing that their framing would depend on the context of the story.

This means that environmentalists have the opportunity to break the media's silence about population and help connect population growth to the problems it causes, if they will take the initiative to raise the subject with journalists who cover local environmental issues. Environmentalists should understand that most reporters do not consider it their role to broach the population issue. As one interviewed journalist admitted of the population connection, "Most of us [reporters] wait until somebody says it." Another reporter said, "If someone were intelligent enough to mention population, I would mention it [in the story]." Yet another comment was, "Unless the journalist runs across the right expert who says, 'It's population,' the tendency is not to put it in [the story], unless you've been assigned to write a major series." However, as one interviewed reporter commented, "No one ever mentions population growth as a source of the problem." Another said, "No one has talked about limiting demand [for housing]. Officials in these small towns are pretty shortsighted."

DISCUSSION

In thousands of communities across America, population growth is wreaking changes: a mobile home park displaces an orchard, a farmer loses his water rights to a city hundreds of miles away, an endangered

reptile's last known habitat is threatened by a subdivision. These and countless other population-influenced disruptions reduce wildlife habitat, rural solitude, water availability, and many other environmental qualities. But this study shows that only one news story in 10 connects these events to domestic population growth.

This study suggests that the working principles of journalistic storytelling create a vast causal dissociation when the news media report population-driven environmental problems. Local media can cover local environmental degradation, but cannot connect these problems to population growth because, in part, reporters and their sources feel that population growth can only be addressed at the national level. National media can address the population issue, but national reporters cannot peg a story on population to local events that, from a national perspective, seem trivial. Why would *Newsweek* readers in Iowa or Oregon want to know about population-driven water rationing in a suburb of San Diego, or a protested land development north of Atlanta? And on the other hand, why would a borough of Boston want to address national population growth as an issue? From a systems theory perspective, the information feedback loop that connects the microcosm to the macrocosm is broken in the news we get.

A spiral of silence also seems to affect journalists' framing of population-driven environmental problems. Most journalists interviewed in this study knew population growth affects the environment they cover, but they were reluctant to mention population either in their stories or in the interviews that formed the basis for this chapter. Reporters know the controversial nature of population growth, and would rather avoid the issue than mention it—even in questioning sources for their stories.

This study suggests that, from an agenda-setting perspective, the narrative imperative of newswriting keeps issues like population off the agenda. Frequency of mention by the media is the chief means by which an issue asserts itself into the public consciousness (McCombs & Shaw, 1977). But even though population growth causes or exacerbates uncountably frequent events that lower the quality of most Americans' lives, reporters do not mention this. They cannot connect event to ultimate cause in daily events reporting, and this effectively keeps the cause off the agenda and out of public consciousness. If, as one interviewed reporter suggested, reporters "cover fires" for six months, then write a single "trend story" that connects the events to causes, this pattern likely keeps population low on the agenda, because an isolated trend story is unlikely to have much effect on public consciousness.

McCombs and Shaw (1977) note that the media serve a useful function by setting the agenda:

Both by deliberate winnowing and by inadvertent agenda-setting the mass media help society achieve consensus on which concerns and interests should be translated into public issues and opinion (pp. 151-152).

But the agenda-setting process seems useful only if we consider what the media *do* place on the agenda. This study shows that agenda-setting may have a dark side, when we consider what the media *do not cover*. To generalize from this study, it seems likely the media have a blind spot regarding the basic layers of multilayered causality. The deep causes that drive daily events remain off the agenda. Certainly this is the case with population growth, but such causal dissociation may keep many other deep-seated causes of social problems off the agenda.

Although scholars have not satisfactorily tied the media agenda and public opinion to the policy agenda (Borquez, 1993), many scholars have agreed that the media are very important for determining what does not get on the policy agenda. Spitzer (1993) noted: "The scope of the conflict determines the outcome . . . more than any other single force in national politics, the media control the scope of politics." In a similar vein Kingdon (1973) said: "In addition to noting how important the media are in bringing subjects, facts, and interpretations to congressmen, it is also important to mention that the media also play some part in determining which pieces of information will not be brought to congressmen." Indeed, recent U.S. policy on population is pronatalist (Abernethy, 1993). And although in 1996 Congress took measures to reduce illegal immigration, it did so primarily for economic and social reasons, rather than out-of concern for the environment. That same Congress dramatically reduced U.S. funding for worldwide family planning programs.

Many environmentalists are frustrated by the low salience Americans give the population issue. Deploiring the "primitive stage" of U.S. public opinion on population, Grant (1992, p. 231) characterizes U.S. political discourse as "the kingdom of the deaf" (p. 239). Part I of this study shows that the American public is not deaf, but in the news they read, Americans simply have little to hear that explains the environmental costs of population growth. Well-known population researcher Paul Ehrlich has written that a "conspiracy of silence" keeps humanity from taking action on population (1989). Part II of this study shows that journalists are engaged in no conspiracy; they are simply keeping within the storytelling bounds of their craft, framing their coverage of environmental issues narrowly with regard to space and time. Interviewed journalists feel that a limited newshole keeps them from connecting local environmental problems to global

causes like population growth and immigration into the United States. They also know that reproductive matters are a hot button with some readers, and steer clear of the issue if they can.

But population must become more salient if future generations are to enjoy the quality of life we now know. A number of scholars conversant with sustainable levels of agricultural and energy output recently estimated an optimum population for the United States (Pimentel & Pimentel, 1992; Constanza, 1992; Ehrlich & Ehrlich, 1992; Werbos, 1992). The highest estimates were below current population levels; several low estimates were for a U.S. population of less than 100 million. Meanwhile the population of the United States is 265 million and is growing about 1% a year.

Walter Lippmann (1922) distinguished news from truth: "The function of news is to signalize an event, the function of truth is to bring to light the hidden facts, to set them into relation with each other, and make a picture of reality on which men can act" (p. 226). This study shows how and why we are letting signalized events, rather than truth, set the agenda for our demographic and environmental future.

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