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## How and Why Journalists Avoid the Population-Environment Connection

T. Michael Maher  
*University of Southwestern Louisiana*

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Recent surveys show that Americans are less concerned about population than they were 25 years ago, and they are not connecting environmental degradation to population growth. News coverage is a significant variable affecting public opinion, and how reporters frame a problem frequently signals what is causing the problem. Using a random sample of 150 stories about urban sprawl, endangered species and water shortages, Part I of this study shows that only about one story in 10 framed population growth as a source of the problem. Further, only one story in the entire sample mentioned population stability among the realm of possible solutions. Part II presents the results of interviews with 25 journalists whose stories on local environmental problems omitted the causal role of population growth. It shows that journalists are aware of the controversial nature of the population issue, and prefer to avoid it if possible. Most interviewees said that a national phenomenon like population growth was beyond the scope of what they could write as local reporters.

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### INTRODUCTION

In 1992 the National Academy of Sciences and the British Royal Society issued a joint statement urging world leaders to brake population growth before it is too late (Royal Society, 1992). That same year, 1,600 scientists (including 99 Nobel laureates) issued a statement warning all humanity that it must soon stabilize population and halt environmental de-

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Please address correspondence to Dr. Maher, Dept. of Communication, University of Southwestern Louisiana, P.O. Box 43650, Lafayette, LA 70504-3650.

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struction (Deijen, 1992). That same year, a Gallup poll showed that Americans were less concerned about population than they had been 20 years before (Newport & Saad, 1992). That same year, world leaders ignored population growth at the largest environmental summit in history, the U.N. Conference on Environment and Development, held in Rio de Janeiro.

Why are the American public and political leaders so indifferent about this issue that so concerns the world's leading scientists and environmentalists? Not because Americans are anti-environment: another recent Gallup Poll (Hueber, 1991), showed that 78% of Americans considered themselves environmentalists and 71% favored strong environmental protection, even at the expense of economic growth. How can Americans express strong concern about the environment, yet a diminishing concern about population growth, which many environmental experts consider the ultimate environmental problem?

It seems likely that Americans are not connecting population growth to environmental problems. In addition to the above-cited Gallup poll, a series of nationwide focus groups conducted for the Pew Global Stewardship Initiative confirmed this. The study sought to determine attitudes on population among 10 different voting groups, among them Catholic Anglos, mainstream Protestants, Jewish groups, and environmentalists.

The focus group summary report noted, "The issue of population is not invisible but most often it is a weak blip on the radar screens for most of the voting groups—with the exception of the committed environmentalists and internationalists" (Pew, 1993, p. 22).

Focus groups are ideal for getting beneath the surface of public opinion, for finding out why people think what they think. And most tellingly, when the Pew-sponsored focus groups were evaluated on whether respondents could connect population growth with environmental degradation, environmentalists and some of the internationalists and Jewish men's groups could make the connection, "but overall most of the others do not make many direct, unaided connections between population and environment," the 1993 Pew report stated (p. 26, italics in the original report).

But why is the American public not making the connection? This paper explores the possibility that news stories, from which Americans may infer causality of environmental problems, may keep them from making the connection between population growth and the problems it causes.

Population researchers Paul and Anne Ehrlich opened their book, *The Population Explosion*, with a chapter titled, "Why Isn't Everyone as Scared as We Are?" They acknowledged, "The average person, even the average scientist, seldom makes the connection [disparate environmental problem] and the population problem, and thus remains unworried"

(1990, p. 21). But while they noted that the evening news almost never connects population growth to environmental problems, the Ehrlichs chiefly blamed social taboos fostered by the Catholic Church and "a colossal failure of education" (p. 32) for public indifference about population. Howell (1992) also minimized the role of the media in influencing public aptitude about science and the environment, and pointed instead to education:

The obvious starting point for the individual is the public schools. . . . Education proceeds into undergraduate programs, which can play more than one major role in enhancing scientific literacy (p. 160).

The Ehrlichs and Howell seem to assume that education is the chief factor driving public opinion about environmental causality. But in *Trade-offs: Imperatives of Choice in a High-Tech World*, Wenk (1986) offered a more media-centric view of how the public learns: "Whatever literacy in science and technology the general public has reached is not from formal education. Rather, it is from the mass media. That responsibility of the press has been almost completely ignored" (p. 162).

This study will examine press responsibility for the public's indifference to population growth by exploring two questions:

- To what extent do press reports about population-driven environmental problems link those problems to population growth?
- What reasons do reporters give for ignoring population growth in stories about environmental problems?

Before discussing method and findings, however, we must first review the theoretical basis for the media's role in molding public opinion.

### AGENDA-SETTING AND MEDIA FRAMING THEORY

Wenk's point that the media are prime movers of public opinion aligns well with recent mass communication scholarship. Scholarly estimation of the power of the media has fluctuated widely during the twentieth century. In the early decades, the mass media seemed to wield great power, as evidenced by the success of the Creel Committee in selling billions in war bonds during World War I, and by the nationwide panic Orson Welles created in his 1938 Halloween hoax broadcast of invasion from Mars. But scholarly estimation of media influence plummeted when *The People's Choice* study showed media stories had little influence on a national of voters

during the 1940 presidential election (Lazarusfeld, Berelson, & Gaudet, 1968), and when experiments showed that motivational films had little effect in changing soldiers' attitudes in preparation for fighting World War II (Howland, Lumsdaine, & Sheffield, 1965).

The scholarly stock exchange remained bearish on media influence until 1972, when McCombs and Shaw published the first quantitative agenda-setting study. They showed very high correlations between those issues that received the most media coverage over time, and those issues that a sample of the public identified as most important. Since then more than 200 agenda-setting studies have been published (Rogers, Dearing & Bregman, 1993). These studies have generally affirmed Cohen's oft-quoted dictum that the media may not tell the public what to think, but they are spectacularly successful in telling the public *what to think about* (1963).

Recent scholarship has added a corollary to Cohen: media messages may also succeed in telling the public *how to think about* an issue (McCombs & Shaw, 1993). The study of media framing suggests that reality is practically infinite, and that in reducing reality into a story a reporter must select some facts and ignore others. Further, the reporter must make some facts more salient than others in the story by giving them more space or by offering them early in the story. Unlike agenda-setting, which captures only the transfer of issue salience from the news media to the public, media framing theory provides a means of examining how news stories portray the causes of a given public issue. Recent scholarship (Entman, 1993; Pan & Kosicki, 1993; Edelman, 1993) has linked framing with causal reasoning, and Iyengar's studies (1989, 1991) have similarly dealt with news framing and public perception of responsibility for social problems.

Rephrased within a media-framing perspective, this paper seeks to determine how and why reporters diverge from experts in framing causality for environmental problems. But we should establish experts' consensus that population matters in environmental issues.

## HOW EXPERTS FRAME ENVIRONMENTAL CAUSALITY

A recent EPA publication lamented, "At present, there is a deplorable lack of research that assesses the impacts of demographic change within the U.S. on environmental problems at all levels" (Orians & Skumanich, 1995, p. 67). Nevertheless, many scholars have implicated population growth when they discuss base-level causality for environmental problems. Ward and Dubos (1972), Ehrlich and Ehrlich (1990), Commoner (1990)

and Harrison (1992) argued that environmental impact results from three primary determinants: population, consumption level (sometimes expressed as economic level or affluence) and technology (or resources). This is usually expressed as a formula  $I = PAT$ ; that is, environmental impact is the product of population, affluence and technology factors. Bailey (1990) reported additional models, POET and PISTOL, which add social organization, information and standard of living to the basic  $I = PAT$  model.

With specific reference to habitat loss, Sears (1956), Jackson (1981), Myers (1991), Ehrlich and Ehrlich (1990), Harrison (1992) and many others have shown that population growth pushes people into relatively pristine, natural environments. Endangered species problems are frequently the flip side of this coin: when people convert wildlife habitat to their own habitat, they bulldoze trees, introduce chemicals, channelize streams, build dams, alter the water table, and disrupt habitat in numerous other ways.

While it is well known that environmental experts connect environmental degradation to population growth, it is less well known that land developers are equally straightforward in implicating population growth as a causal agent for turning wildlife habitat and farmland into subdivisions. The how-to manuals for real estate development are very explicit about the critical role of population growth:

The two primary determinants of the need for home and commercial construction are population growth and the demolition and retirement of existing facilities. . . . Growth in population creates a need not only for housing but also for supporting real estate facilities such as shopping centers, service stations, medical clinics, schools, office buildings, and so on (Goodkin, 1974, p. 14).

The main idea to keep in mind as you search for rewarding corporate realty investments is that in general, land prices are the resultants of population. As more people come on a given section of land, whether to build homes, to work in stores, office buildings, factories, financial institutions, or supermarkets, they create a demand for living space, land and structures. This demand, except during a recession, seems likely to expand indefinitely (Cobleigh, 1971, p. 10).

Demand for real estate at the national level is influenced by national population growth and demographic change, coupled with expanding employment opportunities and rising per capita incomes (McMahan, 1976, p. 76).

Naturally, they frame the results with different language: what land developers might call conversion of raw land to happy communities is often the same phenomenon that environmentalists would call loss of critical wildlife habitat. But both environmentalists and developers agree that population growth is a chief force driving the process of land conversion. Land conversion, in turn, is frequently associated with species decline and urban sprawl, two issues whose news coverage this study examines. A third issue studied in this research, water shortages, is also exacerbated by population growth, according to Postal (1993), Ehrlich and Ehrlich (1990), the Commission on Population Growth and the American Future (1972), Homer-Dixon, Boutwell and Rathjens (1993), Orians and Skumanich (1995) and many other writers.

We should acknowledge that the cornucopian economists (for example, Simon, 1981; 1990; Bailey, 1993) dispute the notion that population growth has produced any adverse environmental effects. However, their arguments have had much greater predictive power with regard to the short-term price and availability of nonrenewable resources. The cornucopians have failed to explain away the continuing net loss of wildlife habitat, and the growing incidence of water shortages and declining water quality. In general, there is good consensus among the experts that population growth is a significant variable that affects land and water use. But do media reports reflect this?

This is a two-part study. Part I uses content analysis to determine the extent to which reporters include the causal role of population growth in framing stories about the environment. Part II is a follow-up to Part I. It employs depth interviews to discover why reporters ignore the connection between population growth and environmental problems. Since Part I provides the premise for Part II, its methods and results will be discussed separately.

## PART I: HOW REPORTERS FRAME ENVIRONMENTAL PROBLEMS

To measure media framing of environmental stories, Part I uses a randomized sample of 50 articles each for three common population-influenced environmental problems: endangered species, urban sprawl, and water shortages. Articles were downloaded from Lexis-Nexis, the world's largest database of full-text news stories. At the time of the study the Nexis library included 170 newspapers, 330 magazines, as well as wire services. Within Nexis, the CURRNT file limited the search to stories dated 1991 or later using the connector "w/2" (e.g., "endangered w/2 species") pro-

duced only stories in which the search terms appeared within two words of each other.

The search produced 1,349 *water shortage stories*, 1,942 *urban sprawl stories*, and 6,001 *endangered species stories*. These were sampled by using a random number table. Selected stories were limited to newspaper, magazine and wire service stories from U.S. and Canadian sources. To be considered for coding, the story had to describe a population-driven environmental conflict. (It is now common for various grievance groups to call themselves an endangered species. Such stories were discarded.)

All stories were coded for whether or not population growth was mentioned as a cause of the problem described in the story. A second coder read 30% of the stories from each of the three issues as a reliability check. Coder reliability was 100% because coding news stories for the presence or absence of a reference to population growth is much more reliable than coding stories into abstract, overlapping content categories.

### Results

Of the 150-article sample, 16 (less than 11%) mentioned population growth as a cause of the environmental problem described in the story. Population growth appeared in eight urban sprawl stories, seven water shortage stories, and one story on endangered species. Results are presented in Tables 1, 2, and 3.

Tables 1, 2, and 3 also list solutions mentioned in each story. These solutions are numerically summarized in Table 4. As noted earlier, many experts agree that environmental impact is a product of three primary determinants: population, affluence and technology. If these factors serve as causes, addressing them could serve as solutions. Table 4 analyzes how solutions are framed within the sample of stories.

Tables 1-3 show that population growth is mentioned as a cause in only 10.7% of environmental-problem stories. But population is even more unpopular as an environmental solution: Table 4 shows that from a sample of 150, only one story mentions that a stable population might be a possible solution to environmental problems.

Table 4 suggests that reducing consumption is the favored remedy in stories about endangered species and urban sprawl, but for water shortage problems, technological remedies are higher on the media agenda. In other words, most endangered-species preservation measures entail forbidding consumption of some rare creature's habitat (e.g., ancient forests or springs or desert lands). Likewise, many urban sprawl stories present zoning—legal measures to limit consumption of land—as the chief r. sure to con-

TABLE 1

Endangered Species

Species	Story Source	Cause of Species Decline	Solution
1 All endangered species	Inside Energy	habitat loss	National Biological Survey
2 Spotted Owl	Reuter's	habitat loss	Clinton compromise timber plan
3 Spotted Owl	Seattle Times	habitat loss	Lujan proposal
4 Salmon, waterfowl	San Francisco Chronicle	habitat loss	amend Endangered Species Act to allow more water for rice
5 Alabama Sturgeon	States News Service	habitat loss	none; jobs versus environment
6 Slender-Horned Spineflower	L.A. Times	habitat loss to golf course	invoke Endangered Species Act
7 California Condor	UPI	habitat loss	captive breeding
8 Black Bear	U.S. Newswire	habitat loss	invoke Endangered Species Act
9 All endangered species	Congress Daily	protection comes too late	amend Endangered Species Act
10 Delta smelt	Business Wire	habitat loss	business interests oppose listing as endangered species
11 Pacific salmon	L.A. Times	urbanization, logging, agriculture	close salmon season
12 Waterfowl	Sacramento Bee	habitat loss	enhance wetland habitat
13 Several fish species	San Diego Union-Tribune	habitat loss	change water management in Sacramento River Valley
14 California Gray Whale	Atlanta Constitution		protection from hunting
15 Spotted Owl	Reuter's	overharvest	injunctions to prevent logging
16 Mexican Thick-Billed Parrots, Black-Footed Ferrets	Chicago Tribune	habitat loss	protect habitat
17 Salmon	Gannett News Service	captive breeding usually fails	
18 All endangered species	U.S. Newswire	habitat loss	manipulate water levels
19 Spotted Owl, Marbled Murrelet, Pacific Salmon	USA Today	habitat loss, overharvest	strengthen protective laws
20 Chinook Salmon	Seattle Times	habitat loss	jobs vs. environment stalemate
		development	listing as threatened species

TABLE 1 (Continued)

Species	Story Source	Cause of Species Decline	Solution
21 Spotted Owl	Reuter's	habitat destruction	endangered species listing
22 Three species of frogs	Seattle Times	mysterious decline in numbers	unknown
23 Spotted Owl	States News Service	loss of habitat	Clinton compromise plan
24 Marsh rabbits	UPI	loss of habitat	purchase new habitat
25 Salamanders and plants	Texas lawyer	pumping from aquifer degrades habitat	limit pumping
26 Manatees	St. Petersburg Times	people kill them	regulate boating
27 Ninety-eight rare of endangered species	Buffalo News	habitat loss	habitat setaside by Nature Conservancy
28 Mexican Spotted Owl	PR Newswire	habitat loss	Forest & Paper Assoc. opposes endangered species listing
29 Polar Bears	Dallas Morning News	proximity to people in Churchill, Canada	put bears in "bear jail"
30 Dusky Seaside Sparrow	States News Service	habitat loss, pesticides	too late to save; officially extinct
31 Cactus Wren	L.A. Times	habitat loss	endangered species listing
32 Many endangered species	Newsday	none	advances in radio telemetry will aid research
33 Five endangered species	L.A. Times	planned Bolsa Chica development	oppose development
34 Coho Salmon	Seattle Times	habitat destruction, overharvest	close fishing altogether
35 Black-Footed Ferret	Christian Science Monitor	animals bred in captivity can't adapt to the wild	create "halfway house" to teach them how to fend for themselves
36 California Red-Legged Frog	L.A. Times	habitat loss, drought, acid rain, floods, disease	endangered species listing
37 Desert Tortoise	The Energy Daily	hazardous waste dump	waste dump opposed
38 Sperm Whale	Toronto Star	beach strandings	additional research
39 Mexican Spotted Owl	Greenwire	habitat loss	threatened species listing
40 Red-Cockaded Woodpeckers	UPI	habitat loss	protection at Eglin A. F. Base

TABLE 1 (Continued)

Species	Story Source	Cause of Species Decline	Solution
41 Spotted Owl, California Gnatcatcher	Investor's Business Daily	habitat loss	business interests question cost of Endangered Species Act
<b>42 Many endangered species</b>	<b>L.A. Times</b>		<b>preserve endangered species</b>
43 Spotted Owl	Business Wire	habitat loss	business interests react to Greenpeace criticism of "God Squad"
44 California Condors	Washington Times	removed from wild for captive breeding	captive-bred animals to be returned to the wild
45 California Gnatcatcher	L.A. Times	habitat loss	endangered species listing
46 Many bat species	Cleveland Plain Dealer	habitat loss	support for Bat Conservation Int'l
47 Western Pond Turtle	Seattle Times	an "unknown pathogen caused pneumonia"	habitat purchase
48 Rare prairie habitat	Orlando Sentinel Tribune	gravel mine disruption	two acres of plants transplanted
49 Attwater Prairie Chicken	Houston Chronicle	habitat loss, floods, predators	captive breeding, land mgmnt., pesticide restrictions
50 Endangered plants	Atlanta Constitution	development	volunteers move plants away from the path of development

Note. Stories that mention human population growth are listed in bold face; all others do not mention population

TABLE 2

Urban Sprawl

Affected Town or Area	Source	Specific Problem	Solution
1 General	Chicago Tribune	urban sprawl & agriculture	plant rare species in back yard
<b>2 General</b>	<b>PR Newswire</b>	<b>urban sprawl, pollution</b>	<b>limit immigration, advocate replacement-level fertility</b>
3 Petaluma, Cal.	San Francisco Chronicle	factory outlet mall signs, infrastructure	candidates urge slow growth
4 Lake County, Fla	Orlando Sentinel Tribune	developers defy growth management plan	arbitration over environmentalist-developer impasse
5 Atlanta, Ga	Atlanta Constitution	airport not wanted	800 residents oppose airport
6 Everglades	Greenwire	water management plan	officials say water project will not harm environment
7 State Road 60, Fla.	St. Petersburg Times	signs, ugliness, parking lots	task force creates plan to limit developers
8 General	Business Wire	urban sprawl, traffic, smog	students compete in regional planning competition
9 Edgewood, Fla.	Orlando Sentinel Tribune	urban sprawl	development plan filed with state
10 Ontario, Canada	Toronto Star	urban sprawl	regional planning
<b>11 Toronto, Canada</b>	<b>Toronto Star</b>	<b>urban sprawl</b>	<b>funnel population growth to the central city</b>
12 Ventura County, Cal.	L.A. Times	urban sprawl	citizen group backs anti-sprawl candidates for county office
13 Canada	Financial Post	urban sprawl	public transit powered by alternative fuels
14 Tucson, Ariz.	Arizona Business Gazette	urban sprawl	tax breaks to developers for inner-city development
15 Toronto, Canada	Toronto Star	urban sprawl	many oppose inner-city development; want a yard
16 Ventura County, Cal.	L.A. Times	urban sprawl onto farmland	farmers sell development rights (but few takers)

TABLE 2 (Continued)

Affected Town or Area	Source	Specific Problem	Solution
17 Toronto, Canada	Toronto Star	urban sprawl	Ataratiri planned community (rejected by authorities)
18 New York	Newsday	rare plants being lost	preservation in botanical gardens (but cutbacks threaten gardens)
19 Corona, Cal.	L.A. Times	mining clashes with suburbs	compromise seems unlikely
20 Banff, Canada	Calgary Herald	expansion limited by national park	no easy solution
21 Los Angeles, Cal.	L.A. Times	ugliness along highways	put art on billboards
<b>22 Toronto area</b>	<b>Toronto Star</b>	<b>urban sprawl</b>	<b>regional growth plan</b>
<b>23 Toronto area</b>	<b>Toronto Star</b>	<b>urban sprawl</b>	<b>concentrate growth in Metro</b>
24 Volusia, Fla.	Orlando Sentinel Tribune	urban sprawl	impact fees
25 Sacramento, Cal.	The Business Journal	urban sprawl	eliminate tract housing; build village-style development
26 Tampa, Fla.	St. Petersburg Times	mass transit problems	land-use planning to discourage urban sprawl
27 Orange County, Cal.	<b>Chicago Tribune</b>	<b>urban sprawl</b>	<b>build more highways, mass transit</b>
28 San Diego, Cal.	San Diego Union-Tribune	hunting, fishing area consumed by urban sprawl	build a shooting range
29 Los Angeles area	L.A. times	sheep ranches lost to urban sprawl	none
30 Lake Calumet, Ill.	Chicago Tribune	location of new airport	Lake Calumet would produce less sprawl than rural sites
31 Napa, Sonoma Valleys	San Francisco Chronicle	loss of farmland	zoning, land trusts
32 North Caroling	Engineering News-Record	development of river valleys	management agency caves in to developers, environmentalists say
33 California farmland	San Francisco Chronicle	loss of farmland	strengthen zoning laws
34 Canada	Toronto Star	auto emissions, urban sprawl	consider alternatives to cars
35 Simi Valley, Cal.	L.A. Times	urban sprawl	city approves development over environmentalists' objections

TABLE 2 (Continued)

Affected Town or Area	Source	Specific Problem	Solution
<b>36 San Diego County</b>	<b>San Diego Union-Tribune</b>	<b>urban sprawl</b>	<b>managed growth turned out to be poorly managed</b>
37 Philadelphia	UPI	urban sprawl, pollution	mass transit
38 Phoenix, Ariz.	Phoenix Gazette	urban sprawl	preserve 5,000 acre wilderness
39 Montreal, Canada	Montreal Gazette	Montreal foots bill for services used by outlying towns	Montreal gets tax dollars from other provincial towns
40 Half Moon Bay, Cal.	San Francisco Chronicle	urban sprawl	city to sue commission for violating growth mgmn't plan
41 King County, Wash.	Seattle Times	growth management plan creates problems for residents	agricultural zoning is problematic for homeowner refinancing
<b>42 Windermere, Fla.</b>	<b>Orlando Sentinel Tribune</b>	<b>growth management plan disallows mobile homes</b>	<b>conflict between town and regional planners; unresolved</b>
43 New Town, Ariz.	Phoenix Gazette	urban sprawl	city to annex 12,000 acres
<b>44 Greater Toronto</b>	<b>Toronto Star</b>	<b>urban sprawl</b>	<b>student planners propose using bicycles</b>
45 Toronto	Toronto Star	urban sprawl	school construction costs added to home prices, developers angry
46 Seattle, Wash.	Seattle Times	urban sprawl	direct growth into city center
47 New York-New Jersey lands	Gannett News Service	woods lost to suburbs	purchase forest land
48 Andover, Mass.	Christian Science Monitor	wetlands loss	preservation through land trust
49 Stockton, Cal.	Gannett News Service	urban sprawl	develop 18,000 acres of farmland into five new or expanded cities
50 Seattle, Wash.	Seattle Times	urban sprawl	urban planning

Note. Stories that mention human population growth are listed in bold face; all others do not mention population

TABLE 3

Water Shortages

Affected Town or Area	Story Source	Solution
1 California	San Francisco Chronicle	free market deregulation
2 Seattle	Seattle Times	new pipeline to Green River
3 Seattle	Seattle Times	possible return of "water police"
4 California	U.S. Newswire	build water pipeline from Alaska
5 Lewiston, Idaho	Lewiston Morning Tribune	invest in water system
<b>6 Ventura, Cal.</b>	<b>L.A. Times</b>	<b>developers want new pipeline</b>
7 California	Reuter's	establish water bank
8 Tampa, Fla.	St. Petersburg Times	voluntary conservation
9 Pinellas County, Fla.	St. Petersburg Times	tight regulations, \$200,000 awareness campaign
10 California	L.A. Times	Sect'y of Interior says limit growth (but not specifically population growth)
<b>11 California coast</b>	<b>PR Newswire</b>	<b>new desalination technology</b>
12 Pennsylvania	UPI	water rationing
<b>13 Naperville, Ill.</b>	<b>Chicago Tribune</b>	<b>bring lake Michigan water to city</b>
14 Brockton, Mass.	Boston Globe	new pipeline to Taunton River
15 Bellevue, Wash.	Seattle Times	conservation measures: low-flow toilets, recycle water
16 Vancouver, Canada	Vancouver Sun	continue conservation
17 Tampa, Fla.	St. Petersburg Times	voluntary conservation
18 New York City	Newsday	three-minute showers
19 Southern California	L.A. Times	desalination of sea water (shown as fraught with environmental problems)
20 Nevada	Greenwire	limit wild horse populations to avert disaster
21 California	UPI	\$1.75 billion in bond money for desalination plants
22 Lewiston, Idaho	Lewiston Morning Tribune	conflict between people and salmon for water
23 Sacramento, Cal.	Sacramento Bee	farmers being cut out of water supplies
24 San Diego	San Diego Daily Transcript	desalination
25 Seattle	Seattle Times	landscapers seek exemption from water limits

TABLE 3 (Continued)

Affected Town or Area	Story Source	Solution
16 Orange County, Cal.	Orange County Business Journal	use underground water supplies
17 Contra Costa, Cal.	San Francisco Chronicle	rationing
18 California	UPI	link groundwater basins to surface water systems, water bank, water transfers, new water facilities
<b>19 California</b>	<b>Business Wire</b>	<b>new reservoirs, develop water market, planning</b>
20 New York City	New York Times	rationing
21 Central Valley, Cal.	San Francisco Chronicle	better water management
22 California	UPI	new dams
23 Seattle	Seattle Times	"nearly inexhaustible" water may be underground
24 Western U.S.	States News Service	water markets allow farmers to sell water rights
25 Washington, D.C.	Washington Post	xeriscaping
26 California	L.A. Times	Imperial Valley growers asked to cut water use 7%, send to cities
27 Woodsfield, Ohio	PR Newswire	pump out of area lake
28 Seattle	Seattle Times	take water from nearby Renton, Wash.
29 Two Florida counties	St. Petersburg Times	media blitz urges voluntary conservation
30 Western U.S.	UPI	House approves \$41 million in drought aid
31 California	Orlando Sentinel Tribune	additional storage of recent rain
32 Atlanta	Atlanta Constitution	additional treatment plant allows for more growth
33 Seattle	Seattle Times	mismanagement alleged; more storage and earlier conservation
<b>34 California</b>	<b>Christian Science Monitor</b>	<b>new management plan reapporions water</b>
35 Central Florida	St. Petersburg Times	drought blamed for dropping lake levels
36 Seattle	Seattle Times	water rates to go up to help renovate system
37 Sacramento	L.A. Times	study blames "gambling" by state and federal officials for water shortage
38 Sacramento	San Diego Daily Transcript	better lawn management needed, says sod industry
39 California	Business Wire	water use cutbacks of 30% by industry, employees
40 Northwestern U.S.	UPI	"brown is beautiful, green is greedy" is new motto; shortage blamed on light snowfall

Note. Stories that mention human population growth are listed in bold face; all others do not mention population



TABLE 4  
I=PAT\* Solutions Presented in Lexis-Nexis Sample of  
Environmental Coverage

Listed is the number of stories within each problem category that suggests population, consumption or technology solutions. These numbers are followed by strategies typical of each solution category.

	Endangered Species	Urban Sprawl	Water Shortage	Total
<b>Population:</b>	0	1	0	1
stabilize population		stabilize population	stabilize population	
<b>Affluence (consumption):</b>	32	27	18	77
protection by Endangered Species Act, habitat set-asides, regulate hunting or fishing or logging		zoning, abatement, preservation areas, slow-growth regulations	conserve water by rationing or other means, reallocate water from other sources	
<b>Technology</b>	14	14	28	56
captive breeding, further scientific study, habitat enhancement, regulate pesticides		build more highways, mass transit, alternative fuels, new modes of housing	build new dams, wells, pipelines; desalinate sea water; low-flow toilets, recycle water	
<b>No solution</b>	4	8	4	16

\*Environmental Impact (I) = the product of population (P), affluence or consumption level (A), and technology choices (T) [see Ehrlich & Ehrlich (1990), pp. 58-59].

strain development of a city perimeter. Such a solution simply dumps the population problem on some other community. But water shortage stories present technological fixes (e.g., new dams, new wells, new pipelines, desalination of sea water) 56% more frequently than reducing consumption.

### Discussion

Although many scientific groups, environmental scientists and even land development experts agree that population growth is a basic cause of environmental change, media framing diverges widely from expert framing. Just over 10% of a Lexis-Nexis sample of environmental news stories links human population growth to the environmental problems it affects. Even more significantly, only one story in a sample of 150 presents the view that limiting population growth might be a solution to environmental problems. From the standpoint of Americans' environmental future, the most damaging stories might be those that mention population growth as a cause of the problem, while ignoring population stability as a solution. Such stories effectively tell the reader: population growth affects environmental degradation, but population stability is too outlandish even to be mentioned as a policy option.

Ignoring that a stable population might be a longterm solution to environmental problems, news stories instead direct the public's attention to palliative solutions: build new dams to supply water, zone to prevent urban sprawl, set aside land for endangered species.

Given reporters' penchant for proclaiming to "tell both sides," to render all the news that's fit to print, to answer who? what? where? when? and why?, this leads naturally to the question: Why do reporters avoid the population issue so steadfastly?

## PART II: WHY JOURNALISTS AVOID MENTIONING POPULATION

As we have seen, both land development economists and environmental experts acknowledge population growth as a key source of environmental change. But journalists frame environmental causality differently.

Why? Communication theory offers several possibilities. First is the hegemony-theory interpretation: reporters omit any implication that population growth might produce negative effects, in order to purvey the ideology of elites who make money from population growth. As Malotch and Lester (1974) put it, media content can be viewed as reflecting the prac-

tices of those having the power to determine the experience of others" (p. 120). Since real estate, construction and banking interests directly support the media through advertising purchases, this interpretation seems plausible. A number of media critics (e.g., Gandy, 1982; Altschull, 1984; Bennett, 1988) have suggested that media messages reflect the values of powerful political and commercial interests. Burd (1972), Kaniss (1991) and others have pointed out that newspapers have traditionally promoted population growth in their cities through civic boosterism. Molotch (1976) even suggested that cities can best be understood as entities competing for population growth, with the city newspaper as chief cheerleader.

Certainly most reporters would be incensed at the suggestion that they shade their reporting to placate commercial interests. But Breed's classic study of social control in the newsroom (1955) showed that news managers' values are transmissible to journalists through a variety of pressures: salaries, story assignments, layout treatment, editing, and a variety of other strategies that effectively shape news stories in ways acceptable to management.

Another possible explanation for why journalists omit population growth from their story frame is simple ignorance of other explanations. Journalists who cover environmental issues may not be aware of any other possible ways to frame these stories, thus they derive their framing from other journalists. Journalists frequently read each other's work and take cues for coverage from other reporters, particularly from the elite media (Reese & Danielian, 1989). Perhaps the pervasive predictability of the story frames examined in Part I is another example of intermedia influence. On the other hand, it seems difficult to believe that journalists could be ignorant of the role population growth plays in environmental issues, because media coverage frequently ties population growth to housing starts and business expansion. Furthermore, "Why" is one of the five "W's" taught in every Journalism 101 course. A public affairs reporting textbook, *Interpreting Public Issues* (Griffin, Molen, Schoenfeld, & Scotton, 1991), admonishes journalists: "A common journalistic mistake is simply to cover events—real or staged—and ignore underlying issues" (p. 320). The book identified population trends as one of the "big trouble spots," and listed world population as the first of its "forefront issues in the '90s" (p. 320). Hence, we cannot say that reporting basic causality is beyond the role that journalists ascribe for themselves. Indeed, a panel at the 1994 Society of Environmental Journalists discussed "Covering Population as a Local Story" (Wheeler, 1994). But ignorance remains a possible reason, for not all reporters have training in environmental issues.



A third possible explanation comes from the "spiral of silence" theory by German scholar Elisabeth Noelle-Neumann (1984):

The fear of isolation seems to be the force that sets the spiral of silence in motion. To run with the pack is a relatively happy state of affairs; but if you can't, because you won't share publicly in what seems to be a universally acclaimed conviction, you can at least remain silent, as a second choice, so that others can put up with you (p. 6).

According to Noelle-Neumann, "the media influence the individual perception of what can be said or done without danger of isolation" (p. 156). Media coverage legitimates a given perspective. Lack of media coverage—omitting a perspective consistently from media stories—makes the expression of that perspective socially dangerous. Noelle-Neumann also suggested that the media serve an articulation function: "The media provide people with the words and phrases they can use to defend a point of view. If people find no current, frequently repeated expressions for their point of view, they lapse into silence; they become effectively mute" (p. 173).

This description fits the national sample of news stories discussed in Part I of this study. These stories often show a double layer of causal myopia. Not only did the journalists not tell readers that population growth was causing the problem, the people in the stories themselves—the sources quoted by the journalists—seemed unaware that their predicament was exacerbated by expanding population. Both the reporters and their subjects seemed to be spiraling in silence. But why would reporters so consistently avoid mentioning population as a causal factor of environmental degradation? After all, journalists are not engaged in some misanthropic conspiracy to dupe the public. But Americans are extremely sensitive to issues involving reproduction, as the continuing furor over abortion demonstrates. Perhaps journalists consider population growth a taboo topic. Journalists' sources, taking their cues from media silence about population, steer clear of the issue themselves.

In *How Do Journalists Think?* Stocking and Cross (1989) offer a cognitive psychology model that suggests that journalists construct hypotheses in pursuing news stories, but that reporters tend to indulge in a host of causal attribution errors. Among these are the tendency to oversimplify, to prefer anecdotal information over more valid statistical information, and the "fundamental attribution error"—the "tendency to weigh personal