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Johnstone v. Norway¹

Annexure “C”

Media Censorship: Citizens are ignorant of how to contribute to Sustainable Security: Procreate and Consume below carrying capacity, to avoid scarcity induced resource war conflict.

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How and Why Journalists Avoid The Population - Environment Connection

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Abstract

Recent surveys show that Americans are less concerned about population than they were 25 years ago, and they aren't 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 is beyond the scope of what they could write as local reporters.

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 destruction (Detjen, 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 percent of Americans considered themselves environmentalists and 71 percent 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 any 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 between [disparate environmental problems] 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 *Tradeoffs: 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 panel of voters during the 1940 presidential election (Lazarsfeld, Berelson, & Gaudet, 1968), and when experiments showed that motivational films had little effect in changing soldiers' attitudes in preparation for fighting World War II (Hovland, 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, school, 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 Postel (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") produced 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 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 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 measure to constrain 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.

Table 1. Endangered Species

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

	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	CongressDaily	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	overharvest	protection from hunting
15	Spotted Owl	Reuter's	habitat loss	injunctions to prevent logging
16	Mexican Thick-Billed Parrots, Black-Footed Ferrets	Chicago Tribune	captive breeding usually fails	protect habitat
17	Salmon	Gannett News Service	habitat loss	manipulate water levels
18	All endangered species	U.S. Newswire	habitat loss, overharvest	strengthen protective laws
19	Spotted Owl Marbled Murrelet, Pacific Salmon	USA Today	habitat loss	jobs vs. environment stalemate
20	Chinook Salmon	Seattle Times	development	listing as threatened species
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 or 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
41	Spotted Owl, California Gnatcatcher	Investor's Business Daily	habitat loss	business interests question cost of Endangered Species Act
42	Many endangered species	L.A. Times		preserve endangered species in zoos by captive breeding
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

Table 2. Urban Sprawl

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

	Affected Town or Area	Source	Specific Problem	Solution
1	General	Chicago Tribune	urban sprawl & agriculture	plant rare species in back yard
2	General	PR Newswire	urban sprawl, pollution	limit immigration, advocate replacement-

				level fertility
3	Petaluma, Cal.	San Francisco Chronicle	factory outlet mall signs, infrastructure	candidates urge slow growth
4	Lake County, Fla.	Orlando Sentinel Tribune	developers defy arbitration over growth management plan	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
11	Toronto, Canada	Toronto Star	urban sprawl	funnel population growth to the central city
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)
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
22	Toronto area	Toronto Star	urban sprawl	regional growth plan

23	Toronto area	Toronto Star	urban sprawl	concentrate growth in Metro
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.	Chicago Tribune	urban sprawl	build more highways, mass transit
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 Carolina	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, 6/18/92	urban sprawl	city approves development over environmentalists' objections
36	San Diego County	San Diego Union-Tribune	urban sprawl	managed growth turned out to be poorly managed
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	agricultural zoning is problematic for homeowner refinancing

			residents	
42	Windermere, Fla.	Orlando Sentinel Tribune	growth management plan disallows mobile homes	conflict between town and regional planners; unresolved
43	New Town, Ariz.	Phoenix Gazette	urban sprawl	city to annex 12,000 acres
44	Greater Toronto	Toronto Star	urban sprawl	student planners propose using bicycles
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 Highlands	Gannett News Service	woods lost to suburbs	purchase forest land
48	Sudbury, 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

Table 3. Water Shortages

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

	Affected Town or Area	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
6	Ventura, Cal.	L.A. Times	developers want new pipeline
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)
11	California coast	PR Newswire	new desalination technology

12	Pennsylvania	UPI	water rationing
13	Naperville, Ill.	Chicago Tribune	bring Lake Michigan water to city
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
26	Orange County, Cal.	Orange County Business Journal	use underground water supplies
27	Contra Costa, Cal.	San Francisco Chronicle	rationing
28	California	UPI	link groundwater basins to surface water systems, water bank, water transfers, new water facilities
29	California	Business Wire	new reservoirs, develop water market, planning
30	New York City	New York Times	rationing
31	Central Valley, Cal.	San Francisco Chronicle	better water management
32	California	UPI	new dams
33	Seattle	Seattle Times	"nearly inexhaustible" water may be underground
34	Western U.S.	States News Service	water markets allow farmers to sell water rights
35	Washington, D.C.	Washington Post	xeriscaping
36	California	L.A. Times	Imperial Valley growers asked to cut water use 7%, send to cities
37	Woodsfield, Ohio	PR Newswire	pump out of area lake

38	Seattle	Seattle Times	take water from nearby Renton, Wash.
39	Two Florida counties	St. Petersburg Times	media blitz urges voluntary conservation
40	Western U.S.	UPI	House approves \$41 million in drought aid
41	California	Orlando Sentinel Tribune	additional storage of recent rain
42	Atlanta	Atlanta Constitution	additional treatment plant allows for more growth
43	Seattle	Seattle Times	mismanagement alleged; more storage and earlier conservation
44	California	Christian Science Monitor	new management plan reapportions water
45	Central Florida	St. Petersburg Times	drought blamed for dropping lake levels
46	Seattle	Seattle Times	water rates to go up, to help renovate system
47	Sacramento	L.A. Times	study blames "gambling" by state and federal officials for water shortage
48	San Diego	San Diego Daily Transcript	better lawn management needed, says sod industry
49	California	Business Wire	water use cutbacks of 30% by industry, employees
50	Northwestern U.S.	UPI	"brown is beautiful, green is greedy" is new motto; shortage blamed on light snowfall

Table 4. Solutions presented in sample

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.

Solutions	Endangered Species	Urban Sprawl	Water Shortage	Total
Population:	0	1	0	1
	stabilize population	stabilize population	stabilize population	

Affluence (consumption):	32	27	18	77
	protection by Endangered Species Act, habitat setasides, regulate hunting or fishing or logging	zoning, arbitration, preservation areas, slow-growth regulations	conserve water by rationing or other means, reallocate water from other sources	
Technology	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	
No solution	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].

Figure 1. Summary of sample of interviewed journalists



b. Problem described in reportage that led to the interview, by region			
	Urban Sprawl	Endangered Species	Water Shortage
Southeast	5	1	1
Northeast	3	0	2
Midwest	0	1	1
Northwest	2	1	2
Southwest	1	4	1
c. Summary of interviewed reporters' newspapers by circulation size			
Circulation		Number of interviewed reporters	
1. Less than 250,000		9	
2. 250,00-500,000		10	
3. Greater than 500,000		6	

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 long-term 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 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: reports 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 Molotch and Lester (1974) put it, media content can be viewed as reflecting "the practices 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 the 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, and 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 Gross (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 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 researcher 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.

The 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 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 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 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 and 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 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 didn't 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 aren't putting all they know about causality into their story frame. As Noelle-Neumann put it, it's 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 didn't 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 (Darnton, 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 the 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 don't 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 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 can't 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 and Shaw, 1977). But even though population growth causes or exacerbates uncountably frequent events that lower the quality of most Americans' lives, reporters don't mention this. They can't 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." And indeed, recent U.S. policy on population is pronatalist (Abernethy, 1993). Although in 1996 Congress took measures to reduce 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. Deploring 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. 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 and Pimentel, 1992; Costanza, 1992; Ehrlich and Ehrlich, 1992; Werbos, 1992). The highest estimates were below current population levels; several low estimates were for a population of less than 100 million. Meanwhile the population of the United States is 265 million and is growing about 1 percent 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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