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**The Press and Coverage of Overpopulation –  
Media Ignore what some Scientists Call the Most  
Important Problem Facing the World Today**

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**The Press and Coverage of Overpopulation –  
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**Abstract**

Findings released by academics in research journals such as The Journal of the American Medical Association to New Media and Society often lead to articles in the mass media, regularly reported in media outlets from The New York Times to USA Today. Abundant research since the 1970s has shown that such coverage in the mass media is then correlated with public opinion and leads to changes in public policy. Normally, such research demonstrates the agenda-setting effects work at the national level on highly salient issues from nuclear power to tobacco use to highway funding. This research shows that agenda-setting research techniques fail to work on overpopulation, an issue that, despite ample academic discussion, appears barely significant in more than 80 years of public opinion polls and barely registers in mass media coverage. Neither media outlets nor poll results indicate any interest in the topic which some scientists says is the top problem facing society today.

**Keywords:** Agenda-setting, Environment, Framing, Overpopulation, Poll, Public opinion

## Introduction

Newspapers of the 1800s were all powerful. Except for word of mouth communication, which could take days, news spread across the country and the world in printed newspapers. As the population of the United States grew, so did interest in everything from politics to gossip and scandal in papers like Horace Greeley's *New York Tribune* or Samuel Harrison Smith's *National Intelligencer*. By 1900, the United States published more than half of the newspapers in the world. North Dakota became a state in 1889. But by 1900, the new states of North and South Dakota had 25 daily newspapers and 315 weeklies. Oklahoma, not even a state yet, had nine dailies and nearly 100 weeklies (Schlesinger Meier 1933). German, Swedish and other immigrant groups had their own papers. Slavery abolitionists got a voice in William Lloyd Garrison's *Liberator*. The typical rural newspaper provided its readers with a substantial source, often the only source, of national and international news (Marshall 2007).

Quickly, the media landscape changed. Operators transmitted early news by telegraph. Within a few years of World War I, radio started infiltrating the airwaves in America and countries such as Canada and Argentina. Before World War II, television became the medium of choice even in countries such as the United Kingdom, Mexico and Canada. In 1939, New York City's W2XBS, an NBC station, broadcast up to 58 hours of programming Wednesday through Sunday of each week, about one-third of it news (Lohr 1940).

As the media were evolving, so were studies about the impact of media coverage. Refining the ideas of Walter Lippman who, in 1922, argued that people do not deal directly with their environment as much as they respond to pictures in their heads, Bernard Cohen, by the early 1960s, realized, "The press may not be successful much of the time in telling people what to think, but it is stunningly successful in telling its readers what to think about" (1963). So began the fervent development of the agenda-setting theories in the public arena pushing from media coverage to changes in public opinion and, ultimately, to changes in policy outcomes.

Facing fierce competition from television, newspaper circulation hit its peak in 1973 — 63,147,000 (Newspaper Association of America 2011). It was right about this time that researchers examined the impact of media on public opinion beginning in 1972 when Max McCombs and Donald Shaw, who wrote "The Agenda-Setting Function of Mass Media," showed that, at least when it comes to national issues, by ignoring some problems and attending to others, the mass media profoundly affect which problems readers, viewers and listeners take seriously. In the years since, that the media can influence public opinion has been clearly established through agenda-setting studies. Problems prominently positioned inevitably loom large in the minds of potential voters. Case studies, content analyses, quasi-experiments and other studies have shown that, at least to some degree, news coverage is a significant predictor of shifts in public opinion (McCombs and Shaw 1972, Funkhauser 1973, Weaver et al. 1975, Page and Shapiro 1992). Time-series analyses and experimental studies

have proven that the coverage precedes the change in public opinion and, indeed, change in policy outcomes not only at the national level but at the local level as well (Smith 1987, Smith 1980, Iyengar et al. 1982, Walker 1977, Rogers and Dearing 1988, Mortensen and Serritzlew 2006, Wilson 2012).

The initial studies by McCombs and Shaw employed a simple method — correlation. They compared what voters said were the key issues of the 1968 campaign with the actual content of the mass media used by them during the campaign. In short, they correlated the most important problems with media coverage and examined the relationship. "The correlation between the major item emphasis on the main campaign issues carried by the media and voters' independent judgments of what were the important issues was +0.967." Almost a one-to-one relationship. What the media outlets (print and television) reported, voters found important. And if there was no reporting of a topic, voters rarely indicated it was important to them.

It is such high correlations in repeated studies over decades that have led to the validity of the agenda-setting hypothesis. Marc Benton and P. Jean Frazier (1976) found an especially high correlation (+0.81) between the newspaper agenda and the public agenda on the general topic of the economy. Maria Jose Canel et al. (1996) found that six major concerns on the public agenda matched local coverage with correlations as high as +0.90 depending on the newspaper. Federico Rey Lennon (n.d.) found a correlation of +0.60 between the public agenda and the newspaper and of +0.71 between the public agenda and television. Toshio Takeshita (1993), looking at four individual areas and the public agenda published some of the lowest correlations in the literature — +0.39. Wayne Wanta and Salma Ghanem (2007), in a limited meta-analysis of 90 agenda-setting studies, found an overall mean correlation of +0.53 and 95 percent confidence intervals of  $0.47 \leq 0.53 \leq 0.59$ . Correlation remains the choice of researchers studying agenda setting.

While subsequent studies have gone on to study the depth of this relationship, particularly how media outlets influence the framing of people and events — not only what people see but how they see it, the fundamental relationship between media coverage and public opinion remains a viable topic of research and continues to be done correlating polls of public opinion and news coverage over time.

The agenda-setting studies showed the highest correlations when studying topics that respondents could not personally experience. Palmgreen and Clarke (1977) showed that national issues (energy crisis, corruption in government, inflation, poverty) demonstrated more agenda-setting effects than local issues (crime, housing, poverty, education). In their time-analysis study of Danish municipalities over a 13-year period, Mortensen and Serritzlew (2006) assessed changes in spending per citizen and media coverage, getting at causation as much as correlation. They found little significant impact of the media on local government budgets over a 13-year period. Stuart Soroka (2002) studying unemployment and unemployment coverage in the *London Times* found that the relationship was more complicated. He showed that not only was public awareness about unemployment related to media coverage, it was influenced by

the unemployment rate. "When unemployment is high, monthly variations in public concern are driven by the unemployment rate; when unemployment is low, monthly variations are driven by a combination of the unemployment rate and media content."

When discussing topics such as nuclear power, civil rights, pesticides, national budgets, foreign policy and tobacco use, researchers are also quick to mention the short attention spans of both the media and the consumer. As Anthony Downs (1972) said when discussing the quality of the environment. "American public attention rarely remains sharply focused upon any one domestic issue for very long — even if it involves a continuing problem of crucial importance to society." He argued that the public attention in the early part of the 21st century had reach a stage, his third stage, where public officials were realizing the cost of significant progress, something that would require major sacrifices by large groups in the population.

### *Academic Discussion*

One such topic — a topic academic research shows to have global ramifications but that requires a long attention span and is hard to personalize — is overpopulation. A search for coverage of overpopulation in academic discussions — only 1,610 results in the entire EBSCOhost Academic Search and only 111,000 results in Google Scholar — yields mostly a discussion of dog overpopulation, cancer and monkeys. During more than 200 years of scientific coverage, academic papers point in one direction as did English scholar Thomas Malthus. When he published *An Essay on the Principle of Population in 1798*, the number of people around the world was nearing 1 billion for the first time. "The power of population is indefinitely greater than the power in the earth to produce subsistence for man," he wrote then (Malthus 1798). He was not alone, over the years, in trying to draw attention to the problem. Just in the first two decades of the 21st century, researchers continue to echo Malthus' sentiments.

Mairi Macleod (2013), in a discussion of human fertility, said, "Overpopulation is, arguably, the greatest challenge facing humanity ... . Although problematic, it is also a testament to our success as a species."

J. R. McNeill (2000) said the unprecedented escalation in both human population and consumption in the 20th century has resulted in environmental crises never before encountered in the history of humankind and the world.

E. O. Wilson (2002) claims it would now take four Earths to meet the consumption demands of the current human population, if every human consumed at the level of the average US inhabitant.

T. Caro et al. (2011) and Elissa Pearson (2012) says the human population has increased dramatically in recent history, which coupled with increasingly consumption-driven lives has led to a spate of negative environmental impacts on the planet. In fact, humans have now been called the dominant environmental force on earth.

E. W. Sanderson et al. (2002) and Pearson (2012), in an exercise mapping the human footprint/influence on terrestrial earth (using population density, land

transformation, accessibility, and electricity infrastructure), revealed that the human population has influenced 83 percent of the land surface (excluding Antarctica) of the planet.

Paul Eagles and Robert Demare (1999) when studying the attitude of children toward environmental issues, asked students to reflect on the statement, "Human overpopulation is the biggest threat to the environment," modifying an earlier study, asking students to reflect on the statement, "Human overpopulation is the biggest threat to animals today."

Stanley Gehrt (1996) said although human population growth is the ultimate challenge facing all conservationists, frank discussions concerning the problem are rare ... . Although human overpopulation is one of the greatest threats to biodiversity—and indeed to our continued existence—it is a low priority for most people.

As George Gao (2015) reported, a Pew Research Center poll showed that a majority of Americans express concern that world population growth will strain the planet's natural resources: 59 percent of adults have a pessimistic view about the effect of population growth saying it will be a major problem because there will not be enough food and resources to go around. Some 38 percent take the view that growth will not be a major problem because the world will find a way to stretch its natural resources. In comparison, American Association for the Advancement of Science scientists are particularly likely to express concern about world population growth and natural resources, even more concerned than other adults surveyed. Fully 82 percent of scientists say population growth will be a major problem while 17 percent say it will not be a major problem. The world will find a way to stretch its natural resources.

While academic studies can serve an agenda-setting role for both media coverage and public opinion, despite the consistent academic coverage, unlike nuclear energy, smog or smoking, the problems of human overpopulation have received almost no media coverage in nearly 100 years (Table 1).

**Table 1.** *Factors about World Population*

|                                 |                                      |
|---------------------------------|--------------------------------------|
| <b>Current world population</b> | 7.49 billion                         |
| <b>Most populous country</b>    | China (1.34 billion)                 |
| <b>Most dense population</b>    | Monaco (49,236 people/square mile)** |
| <b>Fastest growth rate</b>      | South Sudan (3.92 percent)           |

\*\* Some data show Macau as the most dense country. Macau is a special administrative region of China. For comparison, the United States has 85.53 people/square mile. Greece has 212 people per square mile.

## Hypothesis

**H1:** Media coverage of overpopulation will be correlated with "overpopulation" as listed as the most important problem on Gallup Polls.

## Methodology

The model used here is drawn in large part from past work on aggregate-level public agenda-setting, tracking the relationship between the national public agenda and the relative salience of issues in the media. The typical measure of the public agenda is the proportion of individuals citing a given issue in response to the "most important problem" question, as McCombs and Shaw did in their initial study. This study follows suit, using the proportion of respondents citing overpopulation in response to the following Gallup question: "What do you think is the most important problem facing the country today?"

### *The New York Times*

The nation's newspaper maintains an online archive of articles dating back to 1851. At cost, the archive of more than 13 million articles is easily searchable by data and open-ended search times online to anyone with access to the newspaper's website.

*The New York Times* is used because it is the only news source (newspaper or television network) for which data is available electronically for such a long period, since 1935. The measure is used here as a surrogate for the entire United States media agenda. In addition, *The New York Times* is one of the few papers left to report, daily, on science news, everything from outer space to dinosaurs to the environment. Even as the focus of criticism, academics acknowledge how *The New York Times* plays a unique role in the United States.

Further, as Howard Friel and Richard Falk (2004) note, we focus our criticism particularly on *The New York Times*, ... because it occupies such an exalted place in the political and moral imagination of influential Americans and others as the most authoritative source of information and guidance on issues of public policy. It is on this basis that the *Times* has acquired its special status as the newspaper of record in the United States, a trusted media sources that supposedly is dedicated to truthfulness and objectivity, regardless of political consequences.

### *The Gallup Poll*

The Gallup Poll Social Series is a set of public opinion surveys designed to monitor US adults' views on numerous social, economic, and political topics. The core questions of the surveys differ each month, but several questions assessing the state of the nation are standard on all 12: presidential job approval, congressional job approval, satisfaction with the direction of the US, assessment of the US job market, and an open-ended measurement of the nation's "most important problem," the last measurement being the focus of this study.

Gallup interviews at least 1,000 US adults aged 18 and older living in all 50 states and the District of Columbia using a dual-frame design, which includes both landline and cell phone numbers. Gallup purchases samples for this study from Survey Sampling International and chooses landline respondents at random within each household based on which member had the next birthday.



Gallup conducts interviews in Spanish for respondents who are primarily Spanish-speaking.

Data from the Gallup Poll was obtained from the Gallup Poll online archive available through Texas A&M University (College Station, Texas).

**Table 2. Relationship Between Public Opinion and Media Coverage**

| <b>Since 2002</b>   |         |
|---|---------|
| Correlation between number of respondents and number of mentions in articles                              | 0.044   |
| Correlation between number of respondents and percentage of mentions in articles                          | -0.014  |
| Average percentage saying "overpopulation"  | 0.126   |
| Number of years analyzed  | 15      |
| Average survey respondents saying "overpopulation" is most important problem in <i>The New York Times</i> | 1.265   |
| Articles  | 89      |
| Articles/year   | 5.933   |
| <b>Since 1935</b>   |         |
| Correlation between number of respondents and number of mentions in articles                              | 0.048   |
| Correlation between number of respondents and percentage of mentions in articles                          | 0.034   |
| Number of years   | 82      |
| Average survey respondents saying "overpopulation"  | 0.64    |
| Articles analyzed   | 206     |
| Total articles containing "overpopulation"  | 2,096   |
| Articles/year   | 25.56   |
| Total number of articles published per year in <i>The New York Times</i>                                  | 124,124 |

## Findings

Following the path of traditional agenda-setting studies, this study initially correlated findings on the Gallup poll with media coverage in *The New York Times* (Table 2). Over 82 years, this meant analyzing 206 articles published in the same time frame as the Gallup polls. While the correlation was positive, it was so small — 0.05, it was almost insignificant. Even when the analysis only examined the last 15 years the correlation between the number of respondents and the number of mentions in articles in one of the nation's leading newspapers, the correlation was only 0.04. Perhaps more importantly, the absolute number of people citing overpopulation as the most important problem and the absolute number of articles on the topic rounded pretty quickly to a similar number — zero.

Clearly it is hard to develop a conclusion regarding the merits of agenda-setting effects of the media on public opinion when neither the media nor the public ever seem to care about the topic despite the red flags raised by academics and environmentalists over almost a century. Yet some of the findings still merit discussion.

*The Gallup Poll*

Over the years, as Table 3 indicates, the top 10 problems and even the top problem have remained relatively consistent fluctuating sometimes with major societal events such as an economic downturn or war. The economy and unemployment consistently top the list.

**Table 3.** *Mentions as the Gallup Poll - Most Important Problem (top 1) (1935-2017)*

| <b>Mentions</b> | <b>Topic</b>                    |
|-----------------|---------------------------------|
| 107             | Economy                         |
| 35              | Issues on the war with Iraq     |
| 32              | High cost of living             |
| 19              | Unemployment                    |
| 13              | Crime                           |
| 11              | Terrorism                       |
| 8               | Vietnam war                     |
| 8               | Vietnam                         |
| 7               | Dissatisfaction with government |
| 6               | Threat of war                   |
| 5               | Keeping the peace               |
| 5               | Race relations                  |

Overpopulation never reached even 1 percent, topping at 0.22 percent in April of 2006 when five survey respondents indicated that overpopulation was the most important problem. On average since 2002 overpopulation was the most important problem for only 0.126 percent of the respondents consistently below everything from welfare to education to civil rights, racism and terrorism. Even the environment in general rarely made the list.

**Table 4.** *Most Important Problem in 25 Years*

| <b>Year</b> | <b>Percentage</b> | <b>Respondents</b> |
|-------------|-------------------|--------------------|
| 2001        | 6%                | NA                 |
| 2002        | 6.53%             | 66                 |
| 2003        | 4.02%             | 40                 |
| 2004        | 3.58%             | 36                 |
| 2005        | 1.59%             | 16                 |
| 2006        | 2.30%             | 23                 |

However, in a recent turn, Gallup started asking a variant on the most important problem question: "Looking ahead, what do you think will be the most important problem facing our nation 25 years from now?" Although the question was not asked regularly over a long period of time, it was asked for six consecutive years beginning in 2001. In those six years, an average of 4.0 percent of respondents (36.2 individuals) indicated that overpopulation would be the nation's most important problem. Clearly, they viewed overpopulation is a problem for the future not the present (Table 4).

On two occasions, however, Gallup thought the topic warranted enough to give it special coverage. In 1992, Gallup reported that "Despite the opinion of some experts that world population is the root cause of many of the world's environmental problems, a recent Gallup poll shows that just half of Americans believe it in the United States' best interest to help other nations slow their high rates of birth. The survey showed that Americans believe the major cause of overpopulation to be related to lack of birth control, lack of sex education and ignorance" (Newport and Saad 1992). In 1999, when the world's population reached 6 billion, Gallup conducted a series of polls specifically on overpopulation (Gillespie 1999). A Dec. 3, 1959 poll showed that three-fourths of Americans had "heard or read about the great increase in population which is predicted for the world in the next few decades." Only 21 percent said it worried them. The report showed that in 1963, a Gallup poll showed that two-thirds of Americans had read or heard about the population crisis. By 1992, however, the percentage that had heard about it was down to 51 percent. The poll also showed that only 18 percent of those polled say overpopulation in the United States is a major problem now, while 59 percent say it is likely to become a problem in the future. An April 16, 1971 poll showed similar finding. Only 41 percent of respondents said "Present US population growth is a major problem now." But 46 percent said it was "Not a problem now, but likely to be a problem by the year 2000." Again, respondents in another survey viewed overpopulation as a problem for the future, not the present.

### *The New York Times*

On average, *The New York Times* published 124,124 articles per year in the historical database accessible online. Assuming that remained relatively constant, that means the paper published about 10.2 million articles since 1935. Yet only 2,096 of them even mentioned the term "overpopulation" — 0.020593 percent. And, of course, not all the articles were on human overpopulation.

One of the challenges with content analysis is what terms to search. For this research, one, unique term — "overpopulation" — provided convincing results. However, many of the articles found did not deal with human overpopulation. Some dealt with "creepy crawlers" (Faust 1979). Others dealt with geese or big game (Geist 1982). Still others included book reviews or letters to the editor (Taylor 2007, Kalfus 2001). Finally, at least over the last decade, some dealt with human overpopulation reporting in a variety of ways.

The most recent article was actually a Retro Report by Clyde Haberman (2015) that looked back at the 1960s and a nightmarish vision of what lay ahead for humankind. In 1966, the report said, a writer named Harry Harrison came out with a science fiction novel titled "Make Room! Make Room!" Sketching a dystopian world in which too many people scrambled for too few resources, the book became the basis for a 1973 film about a hellish future, "Soylent Green." In 1969, the pop duo Zager and Evans reached the top of the charts with a number called "In the Year 2525," which postulated that humans were on a clear path to doom. Haberman continued.

No one was more influential — or more terrifying, some would say — than Paul R. Ehrlich, a Stanford University biologist. His 1968 book, "The Population Bomb," sold in the millions with a jeremiad that humankind stood on the brink of apocalypse because there were simply too many of us. Dr. Ehrlich's opening statement was the verbal equivalent of a punch to the gut: "The battle to feed all of humanity is over." He later went on to forecast that hundreds of millions would starve to death in the 1970s, that 65 million of them would be Americans, that crowded India was essentially doomed, that odds were fair "England will not exist in the year 2000." Dr. Ehrlich was so sure of himself that he warned in 1970 that "sometime in the next 15 years, the end will come." By "the end," he meant "an utter breakdown of the capacity of the planet to support humanity."

...

To some extent, worrying about an overcrowded planet has fallen off the international agenda. It is overshadowed, as Mr. Pearce suggests, by climate change and related concerns. The phrase "zero population growth," once a movement battle cry, is not frequently heard these days; it has, for instance, appeared in only three articles in this newspaper over the last seven years.

Then, in 2014, an article on the environment included a positive outlook on environmental issues as part of a look back on the first Earth Day. "When environmentalists proclaimed the first Earth Day, on this date in 1970, the air was filled with doomsday predictions. At the initial rallies to mark the day, people warned of overpopulation, a denuded planet, hundreds of millions of people starving to death, a new Ice Age or the greenhouse effect. Many — though not all, obviously — of those forecasts were off." There was no further discussion of overpopulation (Flippen and Darlin 2014). In that same year, Henry Fountain (2014) discussed how a presidential adviser, John Holdren, brought a scientific view to debates on climate change but, only in passing, overpopulation or how, in a 1970s book, Holdren proposed abortion as a potential solution. And in August, an economic scene article, begged the question, "Remember the population explosion?"

A political article later that year focused on NumbersUSA and that foundation's founder and president, Roy H. Beck. His foundation says it works to combat overpopulation, something Beck wrote on earlier in his career as a newspaper reporter (Davis).

So it goes on, back in time, through the last decade. Editorials. Letters. Commentary on issues surrounding overpopulation from immigration to abortion to birth control.

A pivotal editorial by biologist Erle Ellis challenged the wide-held belief that, "Like bacteria in a Petri dish, our exploding numbers are reaching the limits of a finite planet, with dire consequences ... . This is nonsense" (Ellis 2013). But he was forced to explain himself in a supplement three days later. "I did not intend this to be an op-ed about population," he said. "Overpopulation is

not THE problem." He goes on to discuss how humans and agriculture will evolve as both have for thousands of years in response to population pressures.

In 2009, the paper reported on the Nobel Prize for economics and its recipient Elinor Ostrom and her research into the management of the "commons," based on Garrett Hardin's 1968 article in *Science* magazine "The Tragedy of the Commons." His fable about a common pasture that is ruined by overgrazing became one of the most-quoted articles ever published by that journal, and it served as a fundamental rationale for the expansion of national and international regulation of the environment, including overpopulation. Hardin himself warned that the "freedom to breed will bring ruin to all. Yet the 2009 reporter disputed his ideas. But "overpopulation" was not even a theoretical example of the tragedy of the commons" (Tierney 2009).

For more than 150 years, *The New York Times* has been in the forefront of science news reporting, publishing books annual on "The Best of Science Writing" and winning numerous awards in science writing and reporting. Yet in the last decade, as in previous decades, the paper devoted mere inches to the topic, spending about the same amount of time people and politicians have spent discussing it or writing relevant policy about it.

### **Future Research**

As Anthony Downs (1972) originally reported, even for a continuing problem of crucial importance, gain public attention is a challenge. Max McCombs (1997) echoed the thought.

Unless there is a constant stream of new information and new angles to feed the story, even the most important topics can disappear from the news agenda. While the attention spans of lawmakers and policy makers may be a bit longer as they grapple with the issues of the day, the capacity of government agendas is every bit as limited as the public agenda or the news agenda. The number of issues with which any of these groups, the public, the press, or the government, can contend is very limited. This limited capacity makes it imperative to develop substantial consensus about which issues top the agenda.

Politicians and bureaucrats rely on the mass media to stay informed about problems and solutions. At the national level, Kingdon (1984) quoted a staff agency analysis, "We can write reports and papers, and they don't read it. But if the Times or Post picks up our report and does a story on it, they do read that, and it gets their attention." Bureaucrats report that issues may not make it to the attention of the White House until the same issues are reported in the *Post*. So, simply, why overpopulation is not a topic for reporting merits further discussion. Maybe it is being overshadowed by environmental issues such as climate change or marginally related, and politically sensitive, issues such as abortion.

The potential for future studies between the relationship between media coverage and public opinion need not stop with that simple link. As other research has revealed, public opinion and media coverage have been linked to policy change. The models begin with the concept of the garbage can of ideas

conceptualized by Cohen et al. (1972), who believe the garbage represents the ideas generated as the various solutions for any problem. The Garbage Can Model disconnects problems, solutions and decision makers from each other, unlike traditional decision theory. Specific decisions do not follow an orderly process from problem to solution, but are outcomes of several relatively independent stream of events within the organization (Daft 1982).

Cohen, March and Olsen might look at overpopulation as the problem, something that requires attention. They would acknowledge that political or administrative decisions regarding overpopulation would not result from an orderly process, first acknowledging the problem then working to develop solutions. Indeed, like the terms affixed to climate change and global warming that evoke different reaction from industry leaders, environmentalists and political leaders, it may be — independently — how overpopulation is being discussed, what alternatives, if any, are being discussed and the frequency of the discussion that prevents any breakthrough. Or it may simply be that neither the media nor the next-door neighbor has identified overpopulation as a problem worthy of attention. Will they, in 2025, as survey respondents said they would?

If the academic researchers and environmentalists are right and overpopulation should be on the public agenda, the problem needs to gain mainstream media attention and more research should be done about how to get long-term problems on the short-term media agenda. Academic reports will not be enough. Neither will just being on the public agenda, discussed in the court of public opinion. The topic will have to move to the policy agenda.

Baumgartner and Jones (1993) and Kingdon (1984) helped evolve ideas of how public opinion and media coverage became public policy even on long-term and hard-to-visualize issues of social importance. The solutions to the problems on the agenda came from a set of alternatives seriously considered by governmental officials and those closely associated with them. Kingdon conceived of three streams of processes: problems, policies and politics — each with lives of their own. People recognize problems; they generate proposals for public policy changes; and they engage in political activities. Alternatives are generated and narrowed in the policy stream. When the three streams join, a pressing problem demands attention for a specific instance.

Of particular note in Kingdon's model is the triggering event, a yet-to-happen event when discussing overpopulation, that brings the streams together into a "window of opportunity" matching a solution to a problem. That trigger can be a change in the political stream or a change in the understanding of the problem or a focusing event that draws attention to the problem. The amount or type of media coverage could certainly be the precipitating factor in the opening of a window of opportunity. In this case, the lack of media coverage may be preventing a window of opportunity at least in Western countries.

The few public policies regarding population control directly warrant examination in light of agenda-setting effects. For example, in the fall of 2015, government officials announced that China's one-child policy introduced in 1979 would be replaced with a two-child policy effective in 2016. China's "one-child policy" is overwhelmingly accepted. According to a survey by the Pew

Research Center (2008), three-in-four (76 percent) Chinese approve of the policy, which restricts most couples to a single child. As one of the few worldwide adopted to limit China's population growth, the media coverage and public opinion leading to both the adoption of the policy and its relaxation warrant further coverage (King White et al. 2015).

Finally, the relationship between public opinion, media coverage and policy change on related policies such as those on abortion and birth control may also warrant further examination.

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