Framing Capital Punishment
Morality, Constitutionality, and Innocence, 1960–2003

Suzanna De Boef, Frank R. Baumgartner, Amber E. Boydstun, Frank E. Dardis, and Fuyuan Shen

De Boef, Baumgartner, and Boydstun are in the Department of Political Science; Dardis and Shen, in the College of Communications, all at Pennsylvania State University, University Park PA 16802. Baumgartner is corresponding author; Frankb@psu.edu

Abstract

Through an analysis of media coverage since 1960, a specially designed experiment in which we assessed individual-level reactions to different arguments, and a statistical analysis of the impact of media coverage on death penalty sentencing rates over time, we show: 1) the dramatic emergence of the "innocence frame" in discussion of the death penalty in the past 10 years; 2) the much greater impact of this argument compared to morality-based arguments on individuals' responses, in particular those who are in favor of the death penalty; and 3) a very strong statistical impact of the rise of the innocence frame in media discussion of the death penalty on actual sentencing rates. The death penalty debate has been transformed by the rise of this new set of questions, moving it away from its previous preoccupation with constitutional and moral arguments. Individuals resist changing their opinions on issues that they consider to be linked to core moral or religious beliefs, but they are quite open to new information along dimensions they had not previously taken seriously. This resistance explains why the innocence frame has had such a great impact on the nature of the debate. It also implies that trends toward lower sentencing rates, and eventual public opinion changes, are likely to continue as long as public discussion remains focused on questions of flaws and imperfections in the justice system.

Introduction

Thirty articles appeared in the *New York Times* in 1996 concerning capital punishment; the bulk of these reported opinions, news, or events leading toward the application of the death penalty. In 2000, 235 articles appeared and the overwhelming majority of them were critical. In just a few short years, the issue was reframed to focus on errors, mistakes, and the possibility of executing the wrong person. Previously, attention had been more likely to focus on the morality or constitutionality of the punishment. The shifting frames surrounding this issue, and the new emphasis on imperfections in the justice system, have already led to a substantial decline in the number of capital sentences; this number has declined by over half since 1998. It may well lead to the end of capital punishment in America.

In this article we follow the recent history of capital punishment with an emphasis on framing. Any complex issue of public policy can be understood in many different ways; public discussion almost always focuses on a small subset of the full set of dimensions because issues must be simplified. The death penalty has often been discussed in legalistic terms of constitutionality because of the judicial nature of the individual cases and of the concept itself (which is judicial by definition). But when capital punishment is discussed more generally, outside the realm of the legal system, discussion has long focused on a simple moral question: whether it is right or wrong to kill as punishment. There are, of course, many other frames: whether the punishment is effective as a deterrent, whether it is applied equitably, how the US looks abroad, whether it is cost-effective compared to alternative punishments, and many others. In recent years, a new frame has catapulted to dominance in the death penalty debate: No matter what one thinks about the morality of the question, can we be certain that the justice system can process thousands of cases and not make a single error? The "innocence frame" is quite different

from the "equity" frame: Executing the wrong person is an unpopular idea across the board. Avoiding higher probabilities of capital sentencing depending on such matters as race, geography, political jurisdictions, or the arbitrary whims of prosecutors are ideas that generate a lot of support among those versed in constitutional law. But the equal protection of the law argument does not resonate with the public the way the innocence frame does, as we shall show. Our goal here is to demonstrate that this new frame is truly different than previous frames in that it generates greater acceptance among those predisposed to support the death penalty in principle. Shifting public discussion of the issue has already had profound impact on the judicial system. Thus we link framing with individual-level cognitive responses as well as with aggregate-level policy outcomes.

We present several types of results. First, there is uncontestable evidence that public discussion of the death penalty has been altered by a new and unprecedented focus on the possibility of errors in the system, an eventuality with which no one is comfortable. The "innocence frame" has resonated more than previous arguments, bringing together a cluster of previously existing, but distinct, arguments into a single frame likely to have greater effect on public discourse than the same arguments considered separately. Second, this frame is different from frames used by proponents or opponents of the death penalty in previous decades. In contrast to other frames, the innocence argument is both attractive to those who already agree with the conclusion to which it points and not alienating to those predisposed against. Previous frames, in particular the long-dominant morality frame, may be quite energizing to those who agree with them, but they are not convincing to those who disagree. Even the equity frame, focused on the guarantee of equal protection of the laws, did not resonate as the new innocence frame does. Third, we link shifting frames of media discussion of the death penalty to actual

results. We present a statistical model explaining the number of death sentences annually and show the dramatic impact of the rise of the innocence frame, even controlling for other factors such as previous levels of sentencing, the number of homicides, and the number of states with capital punishment. A decline of over 100 capital sentences annually can be associated with the framing effects that we document here.

The combined effects of highly publicized exonerations, continued media coverage of the innocence argument, and effective framing efforts by those opposed to capital punishment have already affected the legal community and show signs of affecting public opinion more generally. These effects are likely to grow stronger in the years to come because their impacts are partly dependent on each other: as more death-row inmates are exonerated, media coverage focusing on imperfections in the system naturally increases. As this occurs, juries become less willing to sentence to death (and prosecutors may become less likely to seek the penalty, knowing that they have a lesser chance of gaining it).   The result is a positive feedback system that may well lead to the end of capital punishment in America.

Of course, people do not change their minds on public policy issues overnight, especially when the issue in question touches so directly on moral or religious convictions, as is the case here. We cannot predict the trends of future events or discussion about the death penalty in the years to come. But our evidence strongly suggests that continued media coverage and public discussion of the innocence frame have already begun to have an impact, especially within the legal community. Further, we have evidence about why this is so: Cognitive response to the innocence frame is different from that to the moral frame. This leads us to expect continued impact in the legal community and on public opinion, so long as attention to the question of

flaws in the system remains high. We begin with an analysis of media coverage over the past

several decades.

Media coverage of the Death Penalty

Figure 1 shows the number of stories in the *New York Times* relating to capital punishment from

1960 to 2003.[1]

(Insert Figure 1 about here)

A total of 3,692 stories appeared during this time, with substantial peaks of coverage in

1976–77, just after the Supreme Court reinstated the death penalty after the 1972 decision

invalidating state capital punishment laws, and then again in 2000. During these two periods, the

newspaper carried over 150 articles per year: More than one story every other day. The figure

makes clear that the issue emerged onto the media agenda in the 1970s; there was little coverage,

less than one article per week, before 1972. Coverage has grown substantially in recent years

even though there has been no monumental Supreme Court decision such as those of 1972 and

1976. Rather, more recent coverage, especially that peaking in the unprecedented levels of

coverage in 2000, related to the size of the death-row population and various challenges to the

system based on juvenile offenders, the mentally handicapped, and the concept of "innocence."

The number of front-page stories grew as well: From just one in 1960, there were two in 1970,

four in 1980, eight in 1990, and 19 in 2000.   Clearly, the issue was rising on the agenda in recent

years, especially in the late 1990s and since then.

The tone of coverage of the death penalty has changed dramatically over time. There are

many ways to assess this but we start with a simple count of the number of pro-death penalty

---

[1] We coded every abstract listed under the heading "capital punishment," noting whether or not
the abstract mentioned any of an exhaustive list of 67 different arguments. Thanks to Cheryl
Feeley for doing the bulk of this work for her Senior Thesis and for allowing us to use and
update the data she collected.

stories minus the number of anti-death penalty stories per year. (These are not necessarily editorial preferences, but rather reports of activities, events, opinions, or attitudes that would tend towards the imposition of the death penalty or against that outcome.) Figure 2 shows these trends.

(Insert Figure 2 about here)

A net anti-death penalty tendency was apparent in news coverage of capital punishment leading up to the ban on executions in 1972. During the period of the constitutional moratorium (1972 to 1976), a substantial increase in pro-death penalty coverage followed; much of this was reporting of state legislative efforts to craft new capital laws that would pass constitutional muster. In the ensuing period, from approximately 1978 to 1993, a steady if erratic trend is apparent toward increased pro-death penalty reporting, reflecting increased use of capital punishment and greater numbers of death sentences. This trend reverses again, and very dramatically, after the 1993 peak. By 1993, the imbalance toward pro-death penalty stories appearing in the paper was as high as it had ever been, slightly higher even than in 1973 when states were just revising their laws to reinstate the penalty after they were overturned in 1972. From this point onward, a dramatic shift began to take place so that by 1997 there was a net predominance of negative stories. By 2000, after this trend had continued, a barrage of anti-death penalty news was consistently in the press. Coverage was the most unbalanced in history. In fewer then 10 years we had moved from one historic imbalance in public discussion to its exact opposite. The second one, in 2000, was by far the larger and was due to the rise of the innocence frame.

The general trends of pro- and anti-death penalty coverage correspond to events surrounding capital punishment, but they also reflect important shifts in the nature of the

discussion. Capital punishment raises many different dimensions of debate, from constitutionality to morality to efficacy and others. We coded each story for the presence of a comprehensive list of 67 different arguments, clustered into different main themes or dimensions. Figure 3 shows the number of stories mentioning the most prevalent of these.

(Insert Figure 3 about here)

Issues of constitutionality are the single most common theme in *New York Times* coverage over most of this period; over 1,350 articles mentioned discussions of this type, with peaks coming in 1972, 1976 and the years following that, in the mid- to late-1980s, and finally in the early 21st century as the constitutionality of capital punishment for juveniles and the mentally handicapped became important controversies. Morality issues have been less prominent over time, with a total of 591 stories focusing on these. Discussion of morality has been prominent since 1972, especially from 1972 to 1978 when the constitutionality of the entire death penalty was hotly debated. Since then moral issues have never completely disappeared from the media agenda, but they have been significantly less prevalent. The innocence or fairness dimension was not prominent before the 1980s, but grew rapidly beginning in 1983. It reached a peak in 2000 with 134 stories in that year alone; over the entire period there were just over 1,000 stories with innocence / fairness arguments. Many stories fit into other categories focusing on international comparisons, efficacy (whether the penalty serves as a deterrent or not, for example), cost, mode of execution, or "other" topics. None of these categories was used in more than 300 stories across the entire period, except "other" which was used over 1,200 times. These were miscellaneous mentions of various particularities of the cases or otherwise did not fit into any particular theme. In general, we can see from Figure 3 that constitutionality is a perennial theme; that morality has been an important theme as well; and that innocence has shown a

dramatic increase from virtually no coverage before the 1980s to constituting more than half of

the entire amount of coverage annually in many recent years. We can see this in greater detail in

Figure 4, which delves deeper into the dramatic rise of the innocence question.

(Insert Figure 4 about here)

Figure 4 shows the number of stories each year presenting any of the following: 1) claims

of innocence; 2) problems relating to evidence used in trial; 3) problems or imperfections in the

justice system; or 4) characteristics of the defendant. This cluster of issues, ranging from simple

humanization of the defendant to demonstrations of actual innocence through exonerations, has

always been present, as the figure shows. However, none of these issues was a prominent aspect

of media coverage of the death penalty until they collectively surged to unprecedented levels of

coverage in 2000. From 1960 to the mid-1980s there was trivial coverage of these questions,

typically fewer than ten articles even mentioning them (note that this includes even any mention

of the characteristics of the defendant in the trial; stories at that time were much more likely to

discuss the victim than the defendant). Coverage grew from the 1980s to the 1990s, but rocketed

to new levels in 2000.

Increased coverage of the innocence question might well be expected given the numbers

of people released from death row during this period. Figure 5 shows these data.

(Insert Figure 5 about here)

The number of individuals exonerated has followed a steady trend since the 1970s, with

small numbers of exonerations each year; 2003 was the first year with more than 10

exonerations. The solid line in the figure shows the cumulative number of death-row prisoners

who have been released since the modern era of capital punishment began in 1976; these

numbers grew steadily with no dramatic increase at any particular time. That number did cross a

threshold, 100 exonerations, in the same year that the annual number surpassed ten cases, in 2003. In any case, there is no dramatic surge in exonerations. (Clemency numbers are higher, numbering over 240 since 1976, but these numbers also did not rise dramatically until January 2003, when Governor Ryan of Illinois granted clemency to all 167 inmates on death row in his state.)

We saw in Figure 4 that media attention to the question of innocence has been tremendously punctuated, but Figure 5 shows that the underlying process has been more incremental. Further, the surge in media attention occurred in 2000 when there was no particular threshold or event relating to the absolute numbers of exonerations, though there was certainly increased discussion of flaws, especially beginning in 1995. The combined impact of clemency and exoneration is clearly important. However, the surge in media attention to "innocence" comes in 2000 whereas the clemency and exoneration numbers rise later. We present one last piece of evidence concerning the unprecedented strength of the new innocence frame.

We conducted a dynamic factor analysis to understand the changing dimensional structure of newspaper coverage of the death penalty over time. While the procedure is somewhat complicated, its conclusions are clear. Breaking the data into moving five-year intervals, we performed a factor analysis on our full content analysis of the 67 precise arguments we identified in our research. For each five-year period, the analysis showed which arguments moved together. Where there was an increase in the number of stories relating to racial disparities in capital sentences, for example, did any particular other arguments also show greater prevalence? Where those stories declined over time, did other stories also decline? In this way, the technique allows us to see what arguments cluster together, forming a single theme or dimension. Of course, with only a five-year window, there is considerable noise in the results

for any given five-year period. When we look at each successive five-year window and compare it to the previous and subsequent periods, however, the procedure allows us to see which arguments "resonated" and which had "staying power." By resonance we mean how many arguments moved in concert with one another, comprising an empirically identified frame or dimension, and by staying power we mean how many rolling five-year windows the frame continued to exist. Figure 6 shows the results.

(Insert Figure 6 about here)

We identified a total of 34 evolutionary frames. A large number of these were short lived and not especially coherent, the result of statistical anomalies to be expected when dealing with only five data points at a time. These are identified in unlabelled gray lines at the bottom of Figure 6. Our technique uncovered eight longer-lasting and more important frames, and these are identified in the figure. As these frames were identified separately in each five-year window, individual clusters could come and go. The most important frames, of course, would be expected to last for a long time, and indeed we see that the constitutionality frame lasts quite some time. Similarly the morality or eye-for-an-eye frame is long-lasting. The height of the lines reflect the total amount of coverage to the underlying arguments, weighted by the degree to which each arguments "loads" on the factor, statistically. This simply gives an idea of the number of stories each year that reflect the underlying factor of the stories that make up the frame. And here we can see that the innocence frame is the strongest frame ever to appear in the *New York Times* over the past 45 years.

Figure 6 gives us a way to show what topics were the most prominent topics of discussion over this long period. By looking only at those arguments that form part of a more coherent cluster, rather than each argument separately, we eliminate a tremendous number of

stories that are idiosyncratic, peculiar, or contradicted by some other articles present in the same period. The arguments identified in the frames shown in Figure 6 are those most coherently and consistently coming through in media discourse, and therefore likely to affect public opinion through a consistent and repeated message with related component parts. And glancing at the figure we can trace what should look like a familiar evolution of the debate, from a focus on constitutionality to the emergence of the innocence argument beginning in the mid-1990s, with a consistent concern for morality issues over much of the same time period.

Table 1 shows the arguments that make up each of the frames identified in Figure 6, which allows us to assess both the substantive content of the frames as well as their resonance.

(Insert Table 1 about here)

The table shows that the innocence frame, with nine component arguments, equals the constitutionality frame as the most resonant frame on the death penalty in history. Several of the component parts of the innocence frame, including the racial justice argument, have actually been part of the discussion surrounding the death penalty for quite some time. But this analysis shows that they were once made in a manner that did not resonate or cluster with other, related, arguments. Today, a cluster of criticisms about imperfections in the administration of the death penalty make even these old arguments take on a new and more powerful meaning.

Our review of *New York Times* coverage of capital punishment issues shows that this coverage has evolved in important ways in the past 45 years, and the trends apparent in these data clearly correspond to important developments in the legal community. Most importantly, they show the dramatic rise of the "innocence frame" to such a point that it can be said to dominate media discourse on the death penalty today. With hundreds of references annually to questions of exonerations, imperfections in the system, and claims of innocence, what is the

public reaction? In the next section we assess individual-level response to the traditional morality arguments regarding the death penalty compared with the new innocence or "system-is-broken" argument.

Experimental Evidence on Framing Effects

We designed an experiment to test the micro-level effects of newspaper stories reflecting either the innocence or morality arguments on individual attitudes and administered it to 184 undergraduate students enrolled in an introductory mass communications course at a large public university in the northeast. Subjects were assigned to randomized groups and each group was presented with one of four versions of an 11-page booklet containing a pre-stimulus questionnaire with some control measures, three news articles formatted to resemble photocopies of real newspaper articles, and a post-stimulus questionnaire containing attitudinal and demographic questions. The three newspaper stories included one about health-care reform, one on the death penalty, and one about logging in national forests. To avoid possible confounding influences, specific writers were not mentioned in the bylines and gender-neutral names were used in the attribution of all direct quotes given in the death penalty articles. Full details including the entire experimental booklet, with the text of the stories and all the questions, is available at this website:

(http://polisci.la.psu.edu/faculty/Baumgartner/DP_Experiment_Booklet.pdf).

In a manner similar to Nelson et al. (1997a), we manipulated the newspaper stories by leaving the text identical in its midsection, but altering the headline, lead, and closing paragraphs to reflect the experimental treatment. The common middle section included mention of both the morality and innocence arguments, describing a debate in an unnamed state legislature. Both anti- and pro- death penalty morality arguments were mentioned. In the control treatment, no

additional information or emphasis was provided; in three other groups the headline, lead

paragraph, and closing paragraph all emphasized a pro-death penalty morality argument; an anti-

death penalty argument centering on the moral dimension; or an innocence argument. Every

subject was therefore presented with all three arguments, but one frame or another was

emphasized further in each of the three treatment groups.

After reading the news articles, subjects were told that they would be asked more in-

depth questions on one of the three issues about which they had read; in fact all were asked about

the death penalty. The first measure assessed subjects' support for or opposition to the death

penalty for persons convicted of murder.[2] Based on this opinion measure, we can then classify

the respondents both by the frame they received and whether the stimulus they received

reinforced or challenged their opinion.

Immediately following the opinion measure, we asked the subjects to list the most

important factors, or arguments, that they took into consideration when forming their opinion.

We coded these open-ended responses to capture two main attributes of each argument given:

first, whether the subject adopted the frame—morality or innocence—that was used in the

---

[2] Between reading the three articles and being asked their opinion on the death penalty, subjects were instructed to list up to five arguments that they recalled from each article. These recall measures served to confirm the saliency of the framing manipulations and yielded three reassuring conclusions. First, recalls are a function of the frame received—those receiving different frames differ significantly in their recollections, showing simply that they had indeed read the articles and understood them. Second, treatment effects are similar no matter what the subject's opinion on the death penalty; the recall process (in contrast to attitude justification) is unaffected by the psychology of projection effects or cognitive dissonance. Third, the magnitude of the recall effects are similar across all three treatments.

Note that we recorded the subjects' attitudes towards the death penalty after their exposure to the framing stimulus, but we employ this measure as a valid proxy for subjects' attitudes toward the death penalty because a single brief stimulus would have at most a negligible impact on attitudes toward this issue, being deeply rooted as they are in core values. Our purpose is to study how even a brief framing stimulus affects cognition and the accessibility of arguments, not that it would affect or change overall attitudes. Such effects would have to come after repeated exposures, which are not included in this study.

article; and second, whether they gave an argument in agreement with their own views or one in agreement with the article.[3] We focus here on the first argument offered by each subject, but these results are consistent with analysis performed on the complete set of arguments that subjects gave (they could give up to three justifications for their opinion).

We are interested in how individuals with different predispositions respond to the various frames presented. Therefore, we divide our subjects into four groups here based on whether they were exposed to the innocence or the morality argument and whether their opinion on the death penalty was challenged or reinforced by the article presented to them. We do not expect that a single exposure to any argument will change someone's opinion, but we are interested in the cognitive response to the arguments presented. Theories of attitude formation emphasize accessibility of information and cognitive response to dissonant versus reinforcing stimuli. This is why we are interested in the first justification that our subjects give when asked to explain the arguments that support their opinion. If they are presented with a pro-death penalty argument but strongly disagree with it, they may explain their opinion with an anti-death penalty argument on the moral dimension: directly counter-arguing, showing resistance to the frame presented. We expect all respondents to be more receptive to arguments with which they agree, of course; cognitive dissonance is not an issue in this case. But how does the innocence frame affect those predisposed to disagree? In this way we can determine the receptivity of each group to the morality and innocence arguments.

Figure 7 shows the predicted probability, controlling for level of political interest, of justifying one's opinion on the death penalty with an argument reflecting the frame and policy

---

[3] Two coders worked independently, and each coder's set of subjects contained a common set of 25 randomly selected subjects (a total of 75 arguments) not differentiated to the coders. Approximately 95% of the coding decisions made for this common set of subjects was identical between the two coders.

position of the article presented. (Note that even those in favor of the death penalty could give an anti-death penalty argument as their first consideration, or vice-versa; these subjects would obviously be reflecting some ambivalence in their attitudes.)

(Insert Figure 7 about here)

This figure offers two striking comparisons. First, and unsurprisingly, subjects are more receptive to arguments with which they agree. From 25 to 35 percent gave a similar argument as the first justification for their opinion (as these were open-ended questions and subjects could say anything, these are relatively high numbers as there are many potentially relevant dimensions beyond only morality and innocence). On the other hand, for those who disagreed, the percentage referring to these same arguments as their first justification was in the range of eight to 17 percent. But our real interest is in the relative reactions to the morality and the innocence arguments. Here we see that those exposed to the innocence frame were more likely to reflect that frame in their response than those who received the morality frame, regardless of whether they agreed or disagreed with the article they read. Further, this was particularly true among those who were predisposed against the information they received. Among those who support the death penalty, more than twice the percentage of those receiving the innocence frame referred to it as compared to those getting a morality argument. Due to the very small size of our subject population, the individual differences shown here do not reach levels of statistical significance, but the overall patterns of results lend strong support to the idea that the innocence frame is more effective than the morality frame, especially in dealing with those predisposed to disagree.

We can get a sense of the robustness of our findings by looking at how they relate to political interest. Individuals with higher levels of political interest often have more strongly held attitudes and more coherent clusters of political beliefs. How do individuals with high and

low levels of political interest react to innocence and morality arguments? Figure 8 shows these results.

(Insert Figure 8 about here)

The figure shows the same type of predicted probabilities as in Figure 7, above, for various levels of political interest. No matter what frame they received, the probability of individuals repeating the frame to which they were exposed increases systematically as we move from the less interested to the more interested. This may be because the less interested give a wider range of responses in explaining their attitudes, some unrelated to any logical patterns or belief systems. And, of course, those exposed to a congenial argument are always more likely to incorporate it into their reasoning than those exposed to a challenging argument. The most important lesson of the figure is, however, that the innocence frame is always more effective than the morality frame and that, for each level of political interest, the innocence argument presented to those who disagree with it is just as effective as the morality argument when presented to those who agree with it. At relatively high levels of political interest, 40 percent of death penalty supporters exposed, just once, to the innocence argument incorporate this way of thinking in their attitude justification, but only 13 percent of those exposed to the morality argument do so.

There is no surprise that those who agree with an argument are more receptive to it. But here we can show that, across all the levels of political interest, not only is the innocence argument much more effective than the morality argument, controlling for the subject's pre-existing opinion, but it seems to have as strong an effect on those who disagree as the morality argument does on those who agree. Again, the numbers of our sample are small so that these results are suggestive only. However, the overall pattern of results is important.

Predicting the Number of Death Sentences Using Media Framing Data

So far we have looked at comprehensive results from a large-scale study of media coverage over fifty years and at smaller scale results from experimental work suggesting the prevalence and the power of the innocence argument. Here we look at the impact of these changes in the legal community. Figure 9 shows the numbers of capital sentences, the number of executions, and the size of the death row population over time.

(Insert Figure 9 about here)

The number of death sentences per year across America was high in the early parts of the century, reaching a peak in the 1930s and just before World War Two. In the more recent period, however, Figure 9 makes clear that there were approximately 100 cases per year before the 1976–76 moratorium; that there were huge changes induced by those constitutional decisions as the states first anticipated problems, then pushed through huge increases in sentences in that period; that there was a steady and large increase in the use of the death penalty in the 1980s leveling off at almost 300 cases per year until about 1996; and since 1997 a dramatic decline in the number of death sentences has followed, so that by 2004 there were only 125 death sentences, as compared to 320 in 1996. The total death row population of course relates to the accumulated number of previous death sentences, and that number increases dramatically over the period, moving from 134 in 1973 to over 3,500 by 1999. Finally, executions have risen sharply in the 1990s, but those have declined more recently as well, from 98 in 1999 to 59 in 2004. Even the total death row population declined substantially in 2003 for the first time since the 1970s. In sum we see the expansion of the death penalty in the period following 1976, and the beginnings of what may prove to be an important shift towards lower use in the 1990s and beyond. The turning points come in the mid-1990s.

We developed a model to explain the number of death sentences in each year. The model includes variables for: 1) the number of death sentences in the previous year (this controls for such factors as legal trends and anything else that can be expected to affect the number in both years roughly equally); 2) the number of homicides; 3) the number of states which have ever executed anyone since 1976; 4) two dummy variables to capture the erratic effects of the 1972–76 constitutional developments (one, coded 1 for 1972 and 1973, captures the initial sharp downturn in numbers due to the invalidation of state laws; the other, coded 1 for 1974, 1975, and 1976, captures the dramatic but short term rise in cases immediately after the various states re-wrote their laws, in anticipation of the 1976 reinstatement); 5) and, finally, a summary of the tone of *New York Times* coverage (the net tone of the coverage; see Figure 2, above). The model also includes a constant term. Table 2 presents the results

(Insert Table 2 about here)

Table 2 shows that our model works remarkably well; each variable except the constant term is statistically significant, and each has a coefficient that can be easily interpreted in substantive terms. Each increase of 1,000 in the number of homicides, for example, is related to an increase of three death sentences, other things being equal. For each state that enters the execution set, the model predicts an increase of 1.7 executions every year thereafter. Most importantly for our purposes here, our *New York Times* variable is highly significant statistically, with a coefficient of 0.720. This means that, other things being equal, a net increase of 10 stories critical of the death penalty is related to a decrease of seven death sentences.

Does this model really work? Figure 10 shows how our statistical model corresponds with the actual number of death sentences across the time period.

(Insert Figure 10 about here)

Table 2 showed that 88 percent of the variation in the annual number of death sentences can be explained by our model, and Figure 10 shows graphically what this means. (In fairness, our model includes the number of death sentences in the previous year, which inflates its performance. That variable also serves to control for other factors that we have not measured independently, such as prosecutorial and defense arguments, which may change only slowly. Further, it makes it extremely difficult, statistically speaking, to find significant results for the other variables, but we do find such effects so these are very strong.)

What can we say all in all about these results? Let us point to one simple interpretation: Looking back at Figure 2, the reader can see that from 1993 to 2000, there was a shift in this variable of over 140 points, from an all-time high in pro-death penalty coverage in the *New York Times* to a cascade of negative stories associated with the innocence argument in 2000. We can therefore relate this change of 140 points to a net decline in death sentences of 140 x 0.720 or almost exactly 100 death sentences. Comparing the trends in Figure 2 with those in Figure 10 also makes clear that there has been a long-run correspondence between the net tone of discussion associated with the death penalty and changes in the number of death sentences. Partly this may be because the newspaper *reflects* rather than anticipates developments in the courts. But our interpretation of the variable is that newspaper coverage reflects how individuals and elites discuss the issue. Where there is much discussion of executions successfully carried out and other news reflecting growing use of the death penalty, it becomes banal and more readily accepted; where there is criticism either from social actors or from court-room developments retarding it, questions are raised. During much of the period from 1976 to 1994, most media discussion of the death penalty was relatively positive, but generally, discussion was

mixed, with our net tone variable moving only within a narrow range close to zero (reflecting equal numbers of stories supportive and critical). But this has changed substantially since 1994.

Throughout this paper we have paid attention to the rise of the innocence frame. It is clear that since the mid-1990s, the dramatic increase in "bad news" about the death penalty has been due to this argument. We showed how this was unprecedented in its strength. We then showed with our experiments why we believe this argument has more impact than the traditional morality argument. Now we have shown that this huge increase in coverage is probably related to an annual decline of about 100 sentences per year.

Our model of death sentencing also includes a variable for the number of homicides, and this variable declined from about 24,500 in 1993 to just fewer than 16,000 in 2004, a decline of over 8,000. This by itself should be related to a decline of 24 death sentences. So the shift in public discussion, the rise of the innocence frame, is probably much more important than changes in the underlying crime rate in explaining the dramatic decline in capital sentencing over the past ten years. Framing has had a tremendous impact, perhaps more than criminality itself.

Conclusion

Our analysis has shown that dramatic changes in public discussion and media coverage of the death penalty have occurred over time and that the new innocence or system-is-broken frame differs from previous frames in important ways. First, it resonates more powerfully with other arguments than any other previous frame used in the debate except the constitutionality frame, which itself was extremely powerful. Second, it is unprecedented in its scope: More articles have been published on this topic than on any other topic in any single year of coverage since 1960. In 2000, there were articles in the *New York Times* about the death penalty on two days out of three; many of these stories had an innocence angle to them; it is clearly the dominant

19

media frame in recent years. Third, the new frame is orthogonal to previous arguments. That is, rather than reinforce previous ways of thinking about the death penalty, stressing the moral or religious components, it addresses a completely different point of evaluation, whether the system works as advertised. Fourth, because of the orthogonal nature of the new argument, individuals respond to it with less resistance and cognitive dissonance. While our experimental evidence was not large enough in scope to be entirely convincing on its own, the findings indicate that individuals are more apt to respond to the innocence argument by incorporating elements of it into their thinking than they are when presented with arguments on the morality dimension. This effect is particularly strong among those predisposed to support the death penalty. And finally we have presented strong statistical evidence covering the entire post-1960 period demonstrating a powerful framing effect on actual death sentencing patterns, controlling for such relevant factors as the homicide rate. So it is fair to say that the innocence frame is extremely powerful in scope, convincing on an individual level, and effective in changing public policy in America.

The most remarkable thing about the innocence frame may be what it does *not* ask of those who are opposed to it. It does not ask them to reevaluate their own personal moral or religious background and values; rather it simply asks people to focus on the question of whether a human-designed institution processing thousands of cases can be expected to do so perfectly, without a single error—most people would probably say that is very unlikely. Now, a person's attitude on the death penalty might be justified by their moral views on the question, by their views on the possibility of errors creeping into the system, by another factor, or by a weighted combination of many considerations. In that sense the death penalty is just like any other complex issue of public policy. But it differs from many others in important ways. One of the

most important is in the dramatic rise of a new frame of reference entirely orthogonal to previous ways of arguing on the topic.

We have not addressed public opinion generally in this paper (though we expect to do so in detail in the larger project of which this paper is a part). Clearly, public opinion will move in response to continued media and elite-level focus on problems, exonerations, and other developments consistent with the innocence frame. However, Americans continue to support the general idea of the death penalty as an appropriate punishment in theory, and there is little reason to suspect that they would change their views in large numbers on a basic moral question such as that. The future of the debate as it plays out among the public may hinge on whether it is seen as a theoretical question or one that unfolds in real courtrooms with real individuals presented with real facts and with the possibility of real errors. We are moving strongly in that direction.

References

Associated Press. 2004. Justice Dept. Reports a 30-Year Low in Death Sentences and Fewer Inmates on Death Row. *New York Times* 15 November.

King, Gary, Michael Tomz, and Jason Wittenberg. 2000. Making the Most of Statistical Analyses: Improving Interpretation and Presentation. *American Journal of Political Science* 44 (2): 347–361.

Nelson, Thomas E., Rosalee A. Clawson, and Zoe M. Oxley. 1997. Media Framing of a Civil Liberties Conflict and Its Effect on Tolerance. *American Political Science Review* 91: 567–583.

Table 1. The Content and Resonance of Evolutionary Frames.

1: The "Eye for an Eye" Frame (1964–1967)
   203: pro moral – crime deserves death penalty (627)
   101: pro efficacy – deterrence (116)
2: Constitutionality–Pro (1968–1982)
   400: neutral constitutional (148)
   403: pro constitutional – popular support up (146)
   409: pro constitutional – other (83)
   401: pro constitutional – not cruel and unusual (56)
   419: anti constitutional – other (63)
   111: anti efficacy – alternate systems better (21)
   314: anti fairness – mandatory sentencing wrong (12)
   210: anti moral – killing/vengeance wrong (11)
   100: neutral efficacy – general (10)
3: Constitutionality–Anti (1974–1982)
   419: anti constitutional – other (560)
   409: pro constitutional – other (321)
   319: anti fairness – other (67)
   600: neutral mode (51)
   210: anti moral – killing/vengeance wrong (36)
   200: neutral moral (24)
   300: neutral fairness (18)
4: Mode of Execution and Fairness (1981–1986)
   600: neutral mode (136)
   319: anti fairness – other (33)
   312a: anti fairness – racist (32)
   314: anti fairness – mandatory sentencing wrong (27)
   210: anti moral – killing/vengeance wrong (21)
5: Humanizing the Defendant (1985–1986)
   419: anti constitutional – other (259)
6: The "Eye for an Eye" Frame, redux (1989–1992)
   203: pro moral – crime deserves death penalty (115)
   400: neutral constitutional (63)
7: The "Innocence" Frame (1992–2002)
   317: anti fairness – innocence (386)
   318: anti fairness – system is broken (245)
   310: anti fairness – inadequate representation (236)
   312a: anti fairness – racist (179)
   302: pro fairness – system is "too" fair; should be abbreviated (114)
   312b: anti fairness – classist (59)
   301: pro fairness – system is fair (34)
   712: anti international – foreign nationals should be exempt (30)
8: System is Unfair (1992–2001)
   319: anti fairness – other (394)

Note: These 8 frames were revealed by dynamic factor analysis of 67 different arguments across every five-year window of time, moving from 1960 to 2003. Arguments comprising each factor are listed along with the weighted number of stories for each argument.

Table 2. Predicting the Number of Death Sentences, 1960–2003.

Variable	Coefficient	(S.E.)	t
Death Sentences$_{t-1}$	0.585	(0.094)	6.19 ***
Homicides$_t$	0.003	(.0016)	1.91 **
Number of States Using DP	1.699	(0.676)	2.51 **
Moratorium Begins (1972-73)	-82.665	(25.213)	-3.28 **
Reinstatements (1974, 75, 76)	52.073	(20.230)	2.57 **
Net Tone	0.720	(0.229)	3.14 ***
Constant	15.169	(25.958)	0.58

$N = 42$. $R^2 = 0.8848$. Prob $> F = 0.0000$
*** Prob > 0.005; ** Prob > 0.05

Figure 1. The Number of Stories on Capital Punishment in the *New York Times*, 1960–2003.
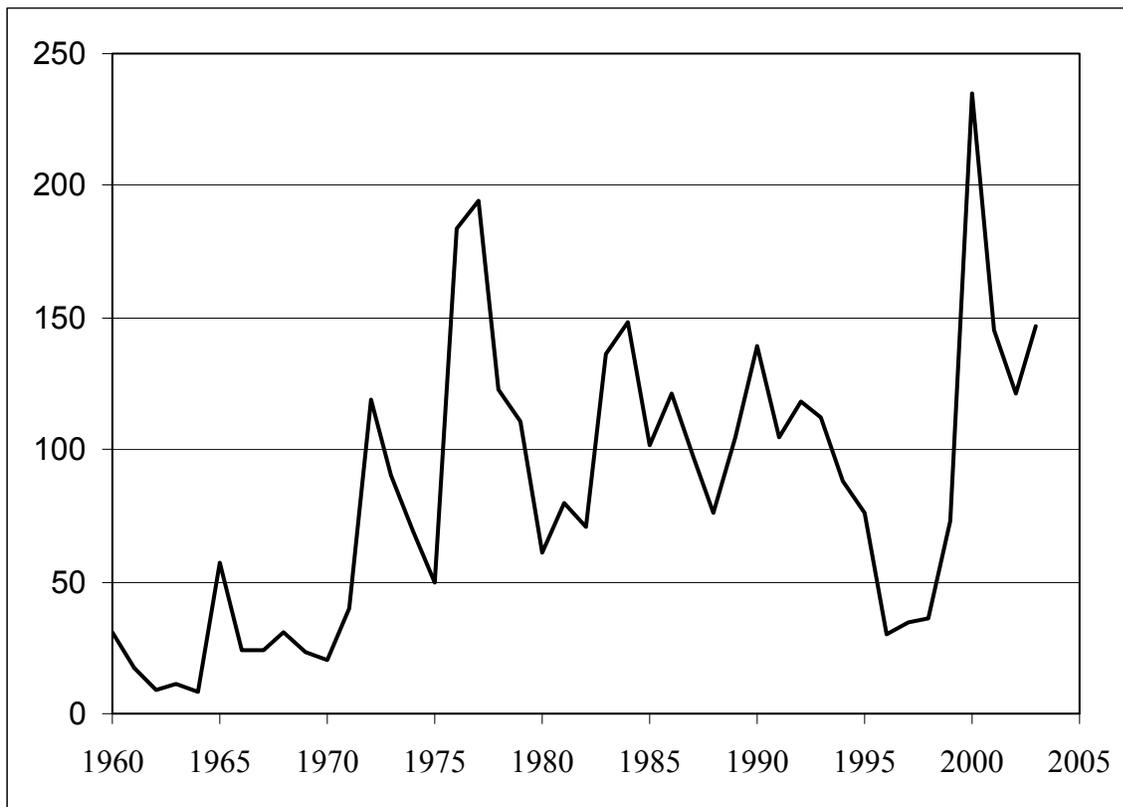
Figure 2. The Net Tone of Coverage.
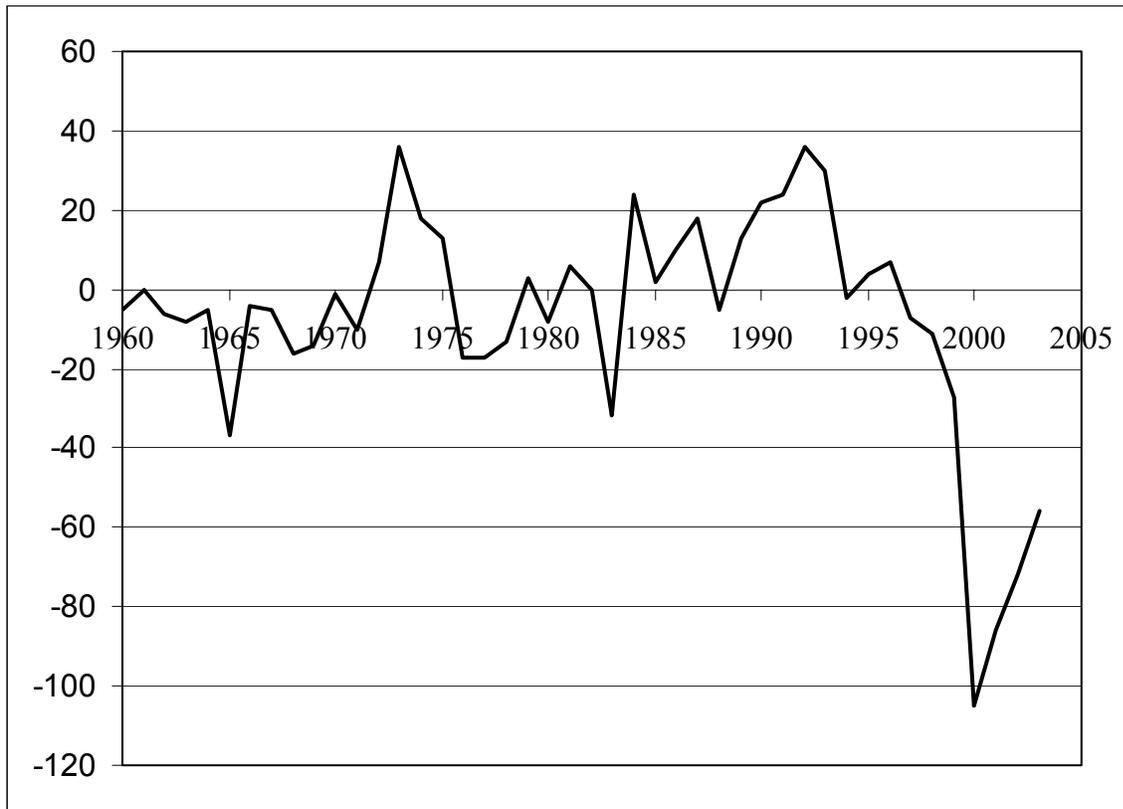
Note: The figure shows the number of stories with a pro-capital punishment theme minus the number with an anti-capital punishment theme. Neutral or uncodeable stories are not counted. Pro- and anti- stories refer not only to editorial statements or expressed opinion, but more generally to reports of events that would tend toward or against the application of a capital sentence. So a report of an appeal denied is coded pro-death penalty; a report of flaws in the legal representation or mental capacity of a defendant is coded anti-death penalty.

Figure 3. Evolving Dimensions of Debate.
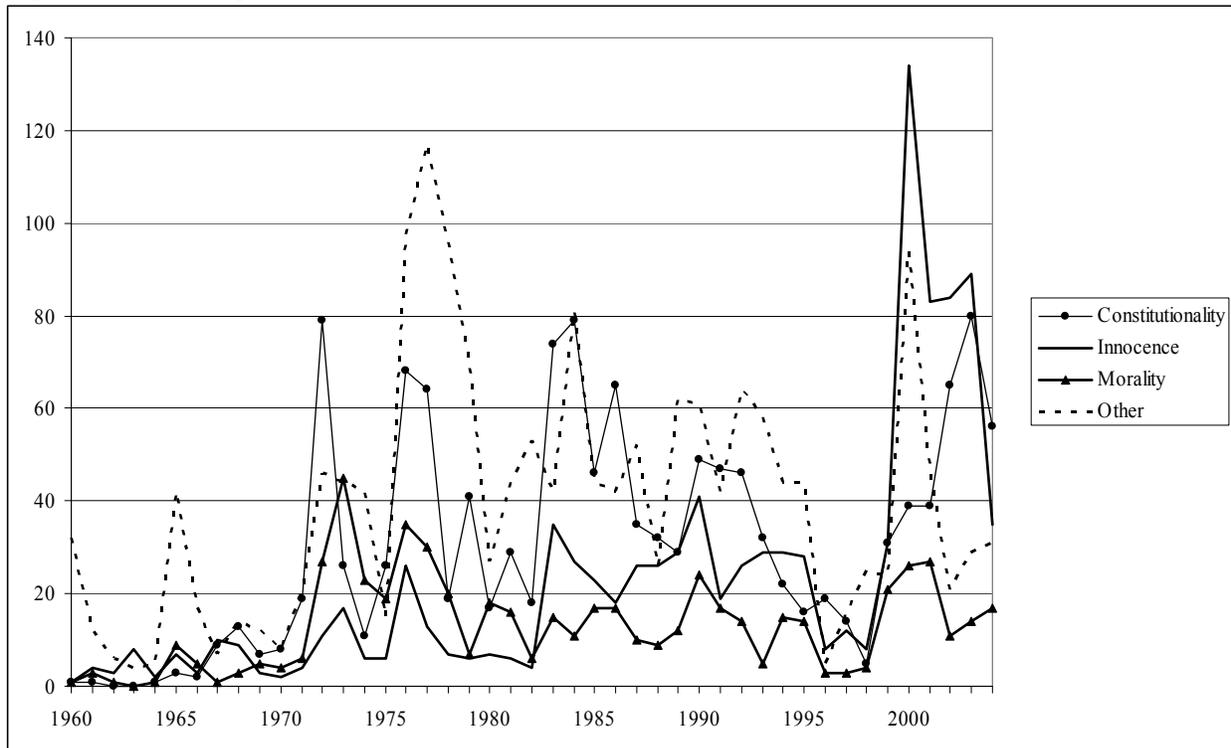
Note: Every article was coded into one of 67 distinct arguments, grouped into eight major dimensions: constitutionality, innocence / fairness; morality; efficacy; cost; mode of execution; international; and other. A single abstract could be coded more than once, and there were a total of 4,763 dimensions coded across the 3,692 articles coded. In this figure, we combine efficacy, cost, mode, international, and other into a single group called "other" for ease of presentation.

Figure 4. The Rise of the Innocence Frame.
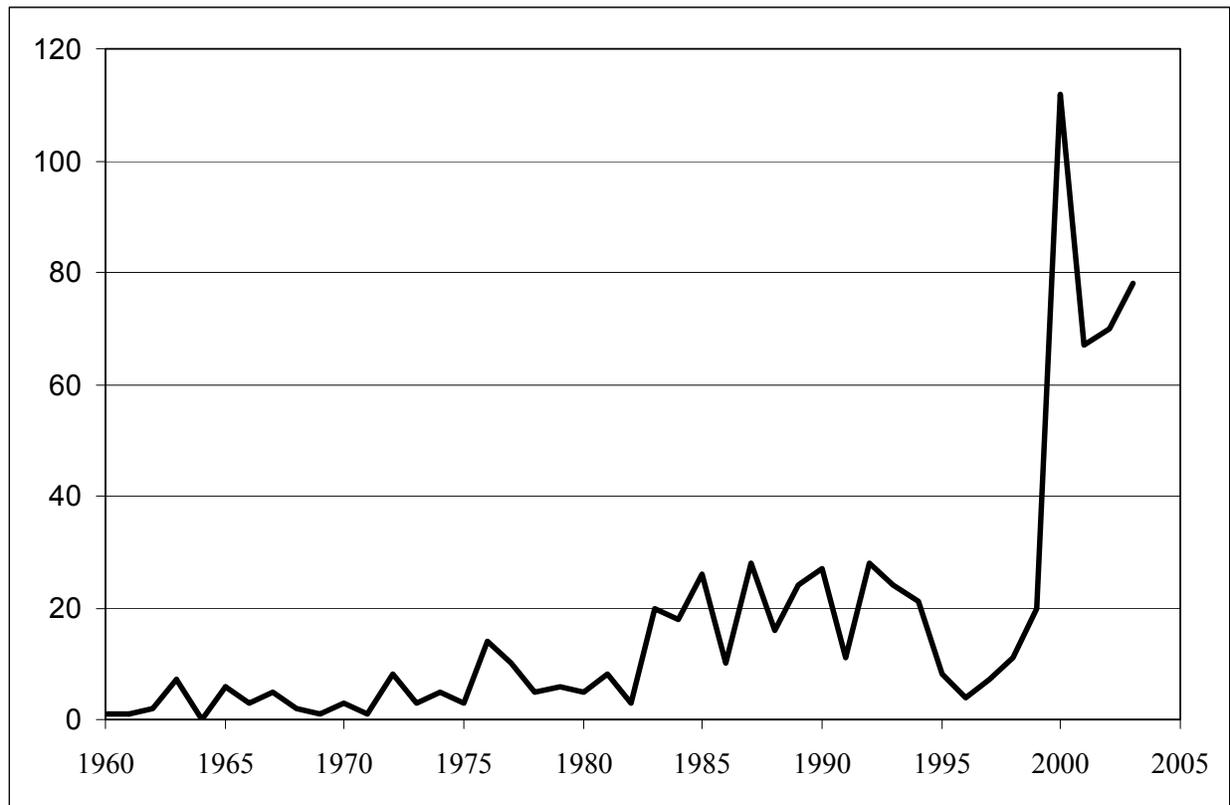
Note: The figure shows the number of stories mentioning elements concerning: 1) claims of innocence; 2) problems relating to evidence used in trial; 3) problems or imperfections in the justice system; or 4) characteristics of the defendant.

Figure 5. Exonerations, 1973–2004.
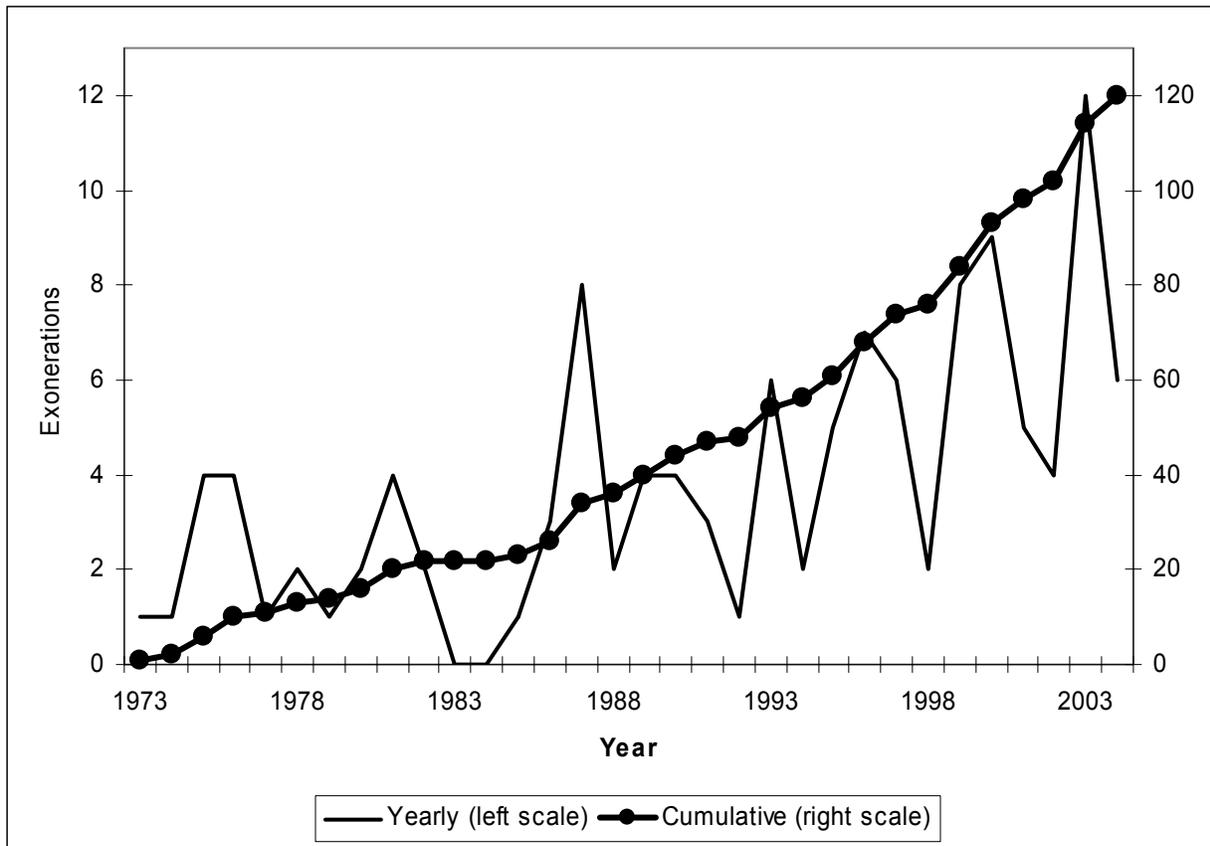
Figure 6. Evolutionary Frames Relating to the Death Penalty, 1960–2001.
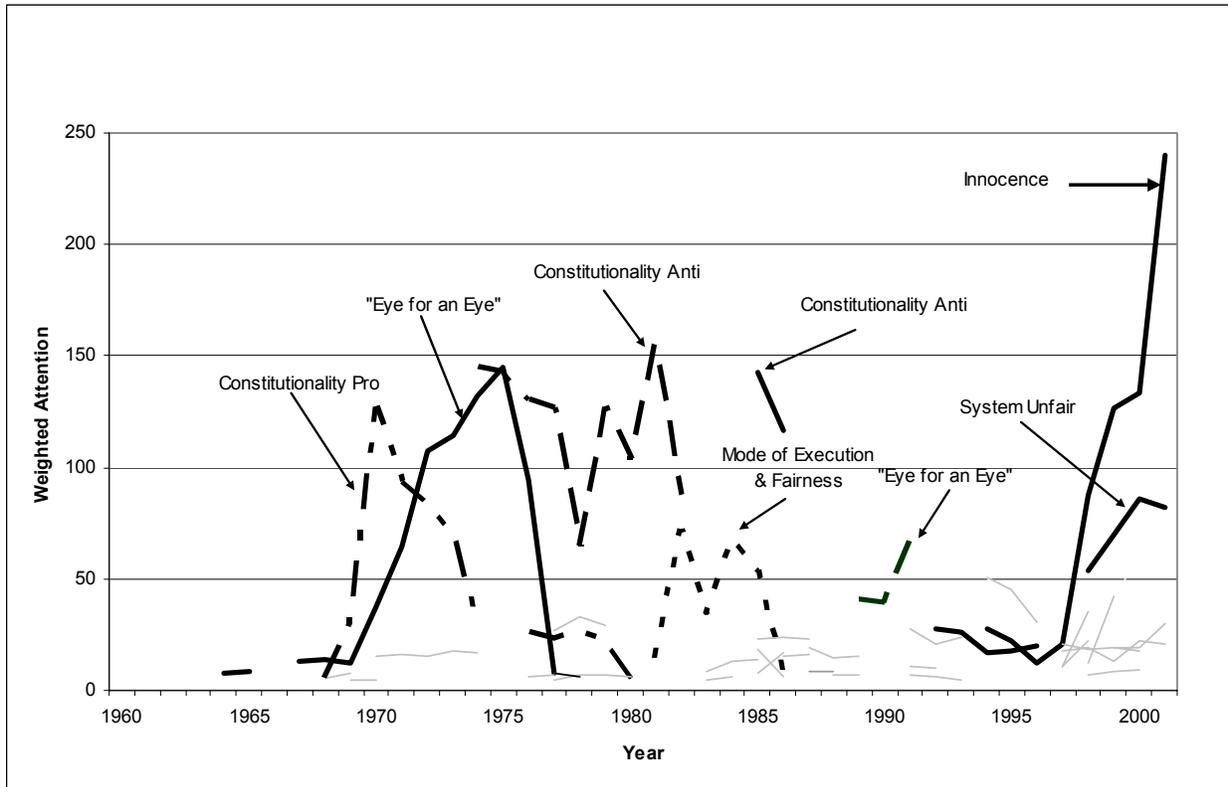
Note: The figure shows the weighted number of stories on each dimension achieved in a series of five-year window factor analyses. The labeled dimensions are the most prominent clusters of arguments; see Table 2 for the component arguments that make up those dimensions. The unlabelled grey lines at the bottom represent other frames statistically identified but which are not interpreted here.

Figure 7.   Predicted Probability of Providing an Argument Matching the Frame Presented, by whether the Stimulus Reinforces or Challenges the Subject's Opinion
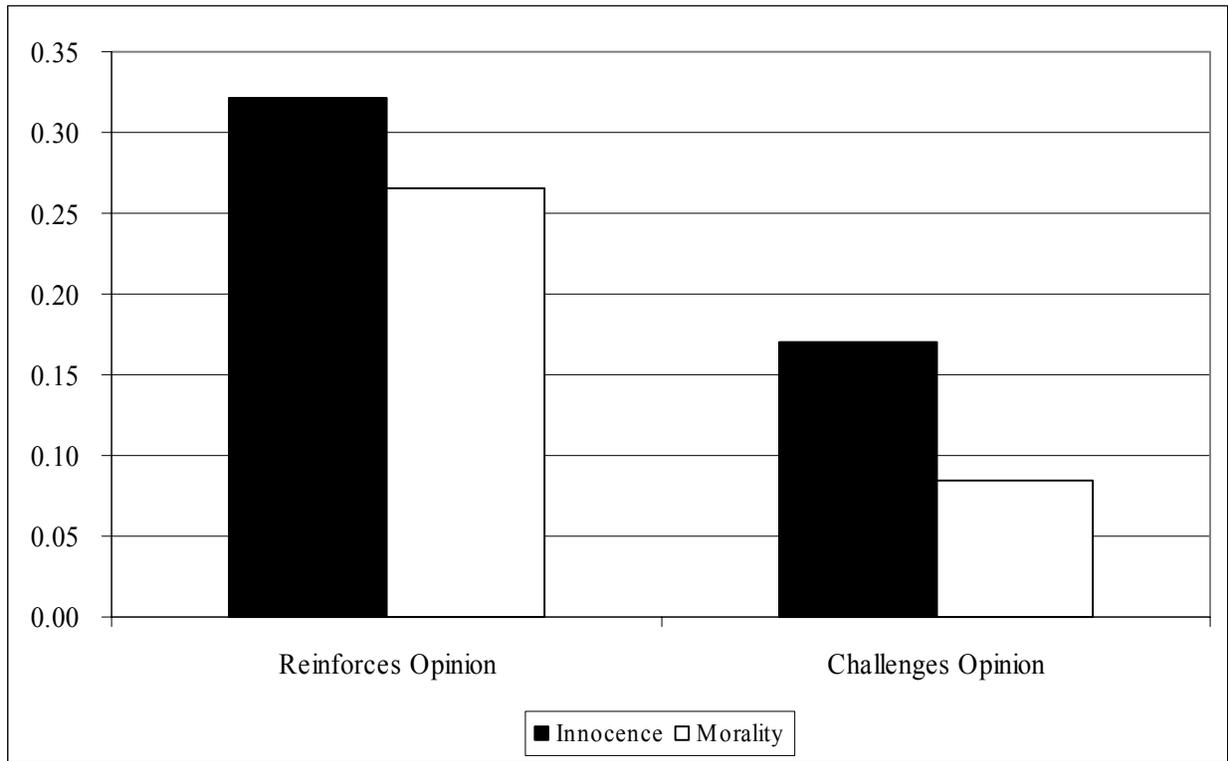
Note: The bars represent the predicted probability that, when asked for the reasons that led them to their attitude on the death penalty, the first justification provided matched the frame to which they were exposed in the experiment, separately for those who agreed with the argument presented and those who disagreed, and controlling statistically for level of political interest. Predictions are made with Clarify; see King 2000.

Figure 8. Predicted Probability of Repeating the Frame Received, by Level of Political Interest.
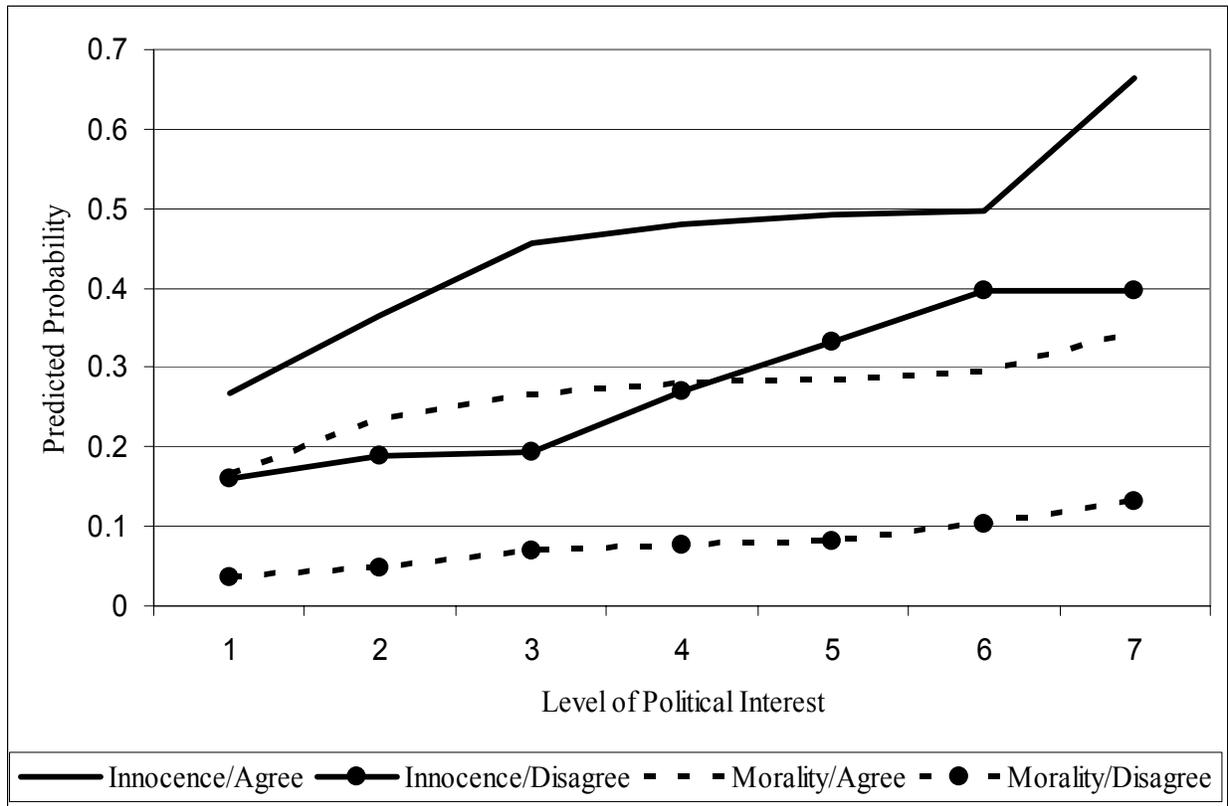
Note: The figure shows the predicted probability of explaining one's attitude on the death penalty with reference to an argument on the frame received, for various levels of political interest. So for example the lowest line shows that those exposed to the pro-death penalty morality argument, but who opposed to the death penalty, were very unlikely to refer to this argument in explaining their opinions: fewer then five percent of those with low political interest, and only about 10 percent of those with high political interest did so. The top line shows that those getting the innocence argument, who agreed with it, on the other hand, were much more likely to use this same argument in explaining their opinion: twenty-five percent at low levels of political interest, and over 60 percent at high levels of political interest. The innocence argument (solid lines) is always more effective than the morality argument (dashed lines).

Figure 9. Death Sentences, Executions, and the Size of Death Row.
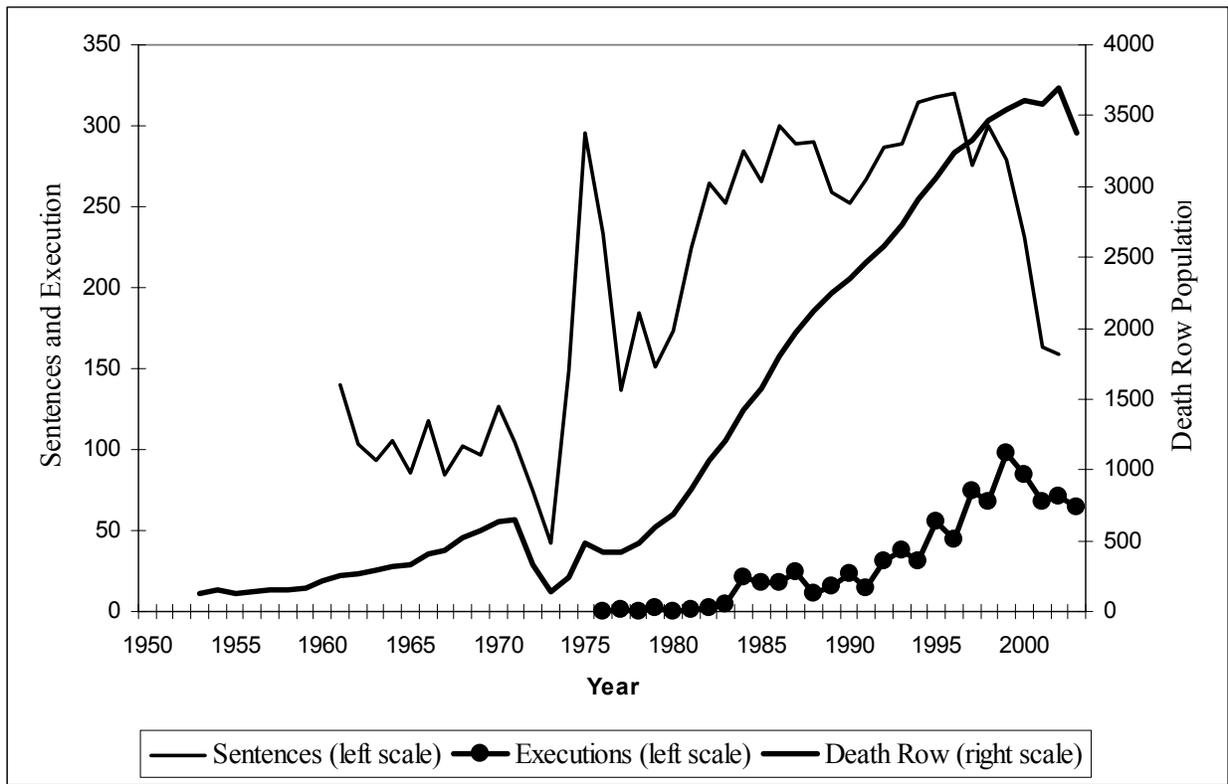
Note: Data from Death Penalty Information Center. 2004 data from Associated Press 2005.

Figure 10. Predicted and Actual Death Sentences, 1960-2003.
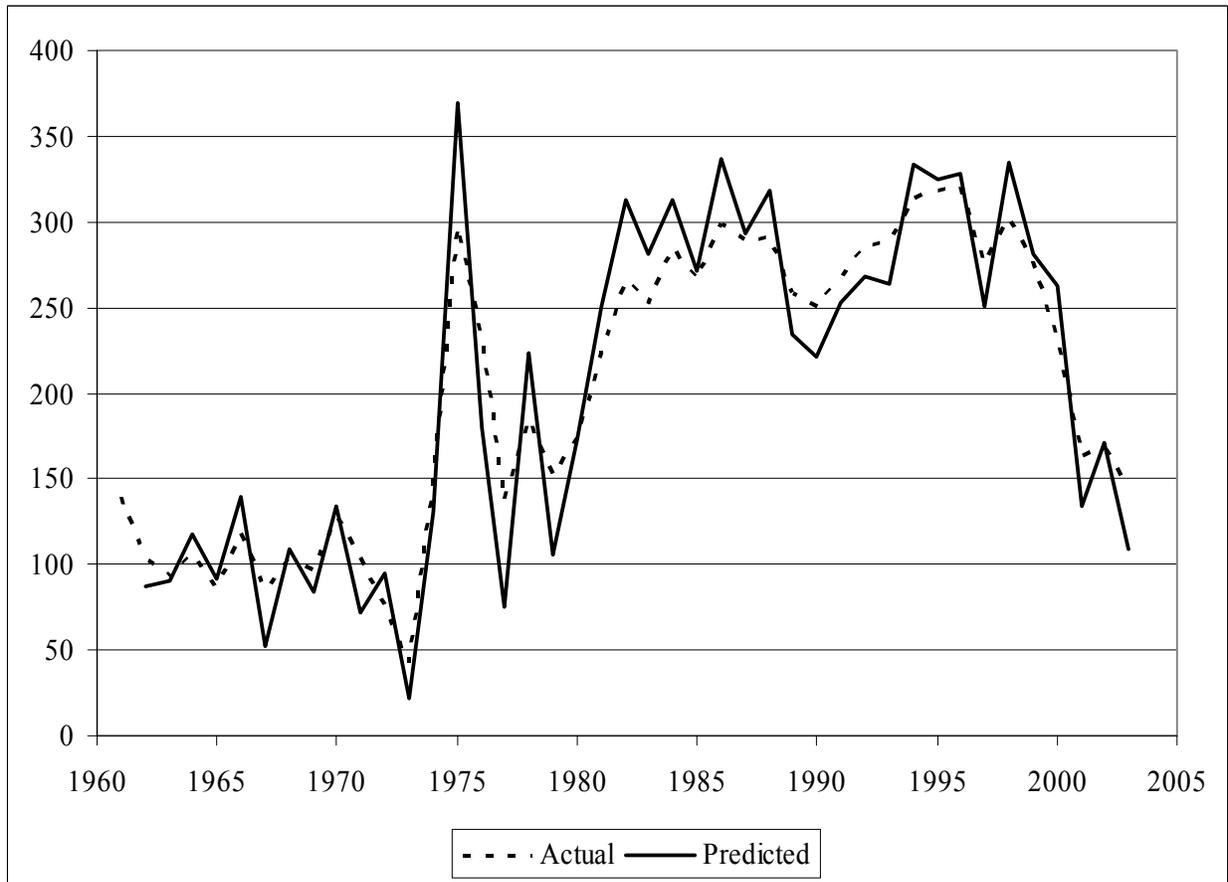
Notes: See Table 2 for the model which predicts the number of death sentences.