Improving decisions on death by revising and testing jury instructions

By applying linguistic principles that facilitate comprehension, and by testing their effects, it is possible to improve the ability of jury instructions to convey legal standards accurately and effectively.

by Shari Seidman Diamond and Judith N. Levi

Jurors who must decide whether a defendant should be executed must be given clear and effective judicial guidance to structure their decision making. As this article will demonstrate, the instructions jurors receive in some capital cases do not provide adequate guidance, and deliberations cannot be relied on to cure their miscomprehension. However, this deficiency in communication can be substantially reduced.

A number of researchers have shown that jury instructions in non-capital cases frequently are not well understood. Moreover, the evidence suggests that comprehensibility can often be improved substantially without sacrificing legal accuracy if the instructions are rewritten. Court reaction to these findings has been mixed. Although a few have acknowledged the value of research findings documenting the problem of miscomprehension, courts asked to consider jury instructions in some recent death-penalty cases have raised questions about how jurors evaluate and apply relevant legal standards and whether the available scientific research can illuminate juror understanding.

Capital cases present a particularly acute challenge for jury instructions. Although the legal concepts at issue in other types of litigation (e.g., conspiracy) may be inherently more complex or ambiguous, courts in capital cases face a uniquely high standard: they must provide adequate guidance on the law if they are to prevent unconstitutional imposition of the death penalty. In Furman v. Georgia, the U.S. Supreme Court found that the totally unguided practices of the states were producing death penalty decisions that were arbitrary or unprincipled; on that basis, the Court invalidated the death penalty statutes of 35 states. Subsequently, the Court also rejected mandatory death sentences for defendants who committed particular offenses under specified conditions. Instead, it endorsed the notion of guided discretion—the establishment of sentencing schemes that would, through legal instructions, tell the jury (1) what factors it could consider in deciding whether to sentence the defendant to death, and (2) how to weigh those factors to produce rational and consistent death penalty determinations. In trying to provide the requisite guidance, some states have ended up constructing daunting instructional labyrinths rather than informative road maps.

The comprehensibility of instruc-

The authors gratefully acknowledge the support and advice received from David Bradford of the MacArthur Justice Center and from Kimball Anderson and Bruce Braun of Winston & Strawn who ably represented James Free. They are also grateful to Dan Wolfe and his colleagues at Litigation Sciences for their interest and support in carrying out the research, to David Nichols for his invaluable technical and analytic assistance, and to Matthew Fagano and Kim Ytla who coded the deliberations. Additional support came from the American Bar Foundation.

4. The California Supreme Court in Mitchell v. Gonzalez, 819 P.2d 972 (1991), relied in part on empirical research in ruling that courts should no longer use the pattern instruction on proximate cause to instruct juries on cause in fact because the instruction was potentially misleading.
6. Supra n. 1.
tions would be of little consequence if jurors generally ignored them. Jurors, however, spend substantial time and effort attempting to apply instructions. Some studies indicate they spend roughly 20 to 25 percent of their time discussing them. Moreover, juries frequently interrupt their deliberations to ask questions about the legal standards they are asked to apply. Thus, a failure to comprehend, remember, or properly apply the legal standards described in the instructions can substantially influence jury verdicts.

Until recently, no scientific evidence had persuaded a court that jury instructions in a capital case were unconstitutional on the grounds that, despite their legal accuracy, they failed to provide jurors with a clear understanding of the law. But in 1991, in a hearing on the capital habeas corpus petition of Illinois death row inmate James Free, a magistrate judge in the Northern District of Illinois recommended that the petition be granted based on survey evidence presented by the late Professor Hans Zeisel that raised serious questions about the ability of Illinois capital jury instructions to provide constitutionally requisite guidance to the jury.

The Zeisel study

The Zeisel survey was conducted in a Chicago courthouse using jurors waiting to be called. They heard and read a description of the evidence from a trial and capital sentencing hearing and the jury instructions from the sentencing hearing. They then read a series of juror decisions, each of which described how a hypothetical juror interpreted certain facts in the case and whether the juror voted in favor of putting the defendant to death. In each instance the respondents were asked whether the hypothetical juror had correctly followed the judge’s instructions.

The survey included 16 questions designed to test understanding of each of several key legal issues. These issues included: (1) Unenumerated mitigators: Did jurors understand that the law allows a juror to consider as a possible mitigator any reason supported by the evidence why the defendant should not be sentenced to death, or did they assume that a mitigator had to be included among, or at least comparable to, the ones specifically enumerated by the judge? (2) Non-unanimity in mitigation: Did jurors understand that a juror can identify a factor (like age) as a mitigator even if the other jurors do not agree that it should be considered a mitigator? (3) Weighing: Did jurors understand that the law asks jurors to balance or weigh the agitating and mitigating factors, as required by People v. Brownell, rather than to assume that death is the appropriate sentence unless mitigating factors are sufficient to overcome that presumption? The survey respondents did not perform well: On only 3 of the 16 questions did even a majority give the correct answer, and on 11 of the 16 the majority explicitly gave the incorrect answer.

After extensive hearings on the quality of the evidence, with testimony from psychologists, sociologists, statisticians, and a linguist, the magistrate judge concluded that the jury instructions were not “intelligible and definite enough to provide even a majority of jurors hearing them with a clear understanding of how they are to go about deciding whether the defendant lives or dies.” As a result, he found that the jury instructions permitted the arbitrary and unguided imposition of the death penalty in violation of the Eighth and Fourteenth Amendments. Federal district court Judge Marvin Aspen accepted the magistrate’s recommendation and vacated Free’s death sentence pending a resentencing.

Before the Free case reached the Seventh Circuit on appeal, the issue of the Zeisel survey evidence was raised in Gacy v. Welborn. Responding to the petitioner’s claim, Judge Frank Easterbrook acknowledged that “[p]hony polysemantic mystification” such as that found in parts of Illinois capital sentencing instructions “reduces the quality of justice,”20 but concluded that no empirical evidence could overcome the legal presumption that jurors understand and follow their instructions: that presumption is irrebuttable.

When the Seventh Circuit subsequently considered Free and voted 2-1 to reinstate Free’s death sentence, Judge Richard Posner, writing for the majority, first dismissed the evidence on the ground that it was offered as the basis for a new rule and was produced after the judgment in Free had become final. However, in going on to consider the potential value of empirical evidence for evaluating the comprehensibility of instructions, he did not reject the district court’s position that an instruction in a death penalty case could be constitutionally defective if empirical evidence indicated that jurors were confused by it. Rather than questioning its relevance, he criticized the empirical evidence presented by Free on two separate grounds.

First, he suggested that jurors simply might not be good test-takers. The survey, after all, required jurors to answer a series of specific written questions about the application of the law to the facts of the case. Poor performance on a written test might not transfer to per-

10. See e.g., Hasle, Penrod, and Pennington, Inside the Jury (Cambridge, MA: Harvard, 1983); Ellsworth, supra n. 2.
12. Luginbuhl, Comprehension of Judges’ Instructions in the Penalty Phase of a Capital Trial: Focus on Mitigating Circumstances, 16 Law and Hum. Behav. 204 (1992), compared juror understanding of the capital instructions formerly used in North Carolina with understanding of the instructions currently in use. The research failed to persuade the North Carolina court that the earlier instructions were deficient and McDougal, sentenced under the earlier instructions, was executed in October, 1991.
14. For example, a juror decides that the fact that Mr. Woods did not actually rape either woman is a mitigating factor sufficient to preclude the death penalty. She votes against the death penalty. 15. 79 Ill. 2d 568, 58 Ill.Dec. 757, 440 N.E.2d 181, 1980 (holding that the Illinois statute requires a weighing process, although neither weighing nor balancing language appears in the statute or in the pattern jury instructions).
15. The two authors appeared as witnesses at these hearings.
18. 904 F.2d 305 (7th Cir. 1990).
19. Id. at 314.
20. Id. at 315. For a critical analysis, see Anderson and Braun, The legal legacy of John Wayne Gacy: The irrebuttable presumption that jurors understand and follow jury instructions, 78 Marq. L. Rev. 791 (1995).
performance in the jury room. Second, he cited the absence of a "control group" as fatal. The study had shown poor performance with the Illinois Pattern Jury Instructions, but it had not shown that performance would be better if the instructions were rewritten.

Judge William Bauer joined the opinion and raised an additional concern: the survey failed to capture the effect of deliberations. Although a juror might misunderstand the relevant law after hearing the judge's explanation, that misunderstanding could be cured after an opportunity to discuss the instructions with other jurors (and presumably after the opportunity to further examine the written instructions). The district court in Free had rejected one of the defendant's contentions (i.e., that the instructions failed to convey that jurors need not agree that a factor is a mitigator) on the assumption that jurors answered the questions on that issue correctly, deliberation would be likely to improve understanding on that issue.

Testing revised instructions

The U.S. Supreme Court's denial of certiorari in Free left unanswered a number of questions about jury instructions that led to the research reported here. The study was designed to address some of the issues raised in the Seventh Circuit's opinion in Free. Preserving the basic format of the questions used in the original Zeisel survey, we made two crucial changes in the research design. First, we rewrote the jury instructions in an attempt to clarify the sources of juror misunderstanding in the original pattern jury instructions. We then tested to see whether the responses of jury-eligible citizens to the original and the revised instructions would differ.

The addition of the "control group" served a dual purpose. It would test not only whether revised instructions could be written that would provide clearer guidance to jurors, but also whether the poor juror performance in the Zeisel survey was attributable merely to the weak test-taking ability of jurors.

The second addition to the research design was to give half of the participants in the new study an opportunity to deliberate as jurors before they responded to the comprehension survey. This was designed to test whether juror comprehension would improve if jurors could exchange views on the meaning and application of the instructions.

Method

Participants in the study were 170 jury-eligible citizens. When they arrived at the research center they were told that they would be acting as jurors in a study of the U.S. jury system. Based on a brief questionnaire, 21 individuals were identified who expressed views that would make them ineligible to decide on the sentence in a capital case, either because they said they would vote to impose a death sentence on any defendant convicted of a capital crime, or because they said that their attitude against the death penalty would substantially impair their ability to find a defendant guilty or to vote for the death penalty. Those 21 individuals were not included in any further analyses.

In each of a series of two-hour sessions, a group of 12 to 16 listened to an audiotaped description of the evidence presented in both the guilt and sentencing phases of the trial of James Free. The jurors then heard an audiorecording of the instructions on the law that were to be applied to the facts of the case (either the Illinois Pattern Jury Instructions for capital cases or the revised version of those instructions).

One group of six death-qualified jurors for which they were paid $40 for 2 hours of their time (funds contributed by the MacArthur Justice Center). Of the 170 respondents, 45 percent were men and 55 percent were women; 17 percent were between 18 and 29 years old, 49 percent were between 30 and 49, and 33 percent were 50 or older; 8 percent had less than a high school education, 14 percent had completed high school or technical school, 39 percent had some college experience, and 39 percent had graduated from college; 23 percent classified themselves as black, 70 percent as white, and the remaining 7 percent as Hispanic or Asian-American; 75 percent were employed, 12 percent were retired, 10 percent identified themselves as homemakers and 2 percent as students.

22. When Judge Posner noted the absence of a "control group" in the original Zeisel survey, he seemed to be referring to the absence of a group that received another version of the instructions, presumably one that attempted to clarify the legal principles that the jurors were to apply. Applying usual research terminology, a group that receives the standard treatment (in this case, the pattern instructions) is usually referred to as a control group, and a group that receives a new treatment (e.g., a revised set of instructions) is usually referred to as an experimental group. The key question, whichever terminology is used, is whether or not performance differs in response to the two different treatments.

23. They were contacted by telephone using random digit dialing techniques. Telephone exchanges within Cook County, Illinois were sampled and numbers were randomly generated. Up to three call-backs were required before a number was substituted. The individual interviewed in each household was the adult with the next birthday. Only individuals eligible for jury service were invited to participate and eligible individuals were selected to match a demographic profile of the jury venire in Cook County, Illinois. They were invited to participate in a public opinion research study.

24. Each juror also received a written copy of this description so that the juror could follow along with the audiorecording.

25. They also each received a written copy of the instructions so they could follow along with the audiorecording.

26. There were 72 deliberators (6-person jury receiving each version of the instructions) and 77 non-deliberators, 40 who received the pattern instructions and 37 who received the revised instructions.
even if other jurors disagree (the "Non-unanimity on Mitigators" issue), and (3) nine questions concerning how jurors should go about weighing aggravating and mitigating factors in reaching a verdict (the "Weighing" issue). 27

The revised instructions

In an effort to correct the sources of misunderstanding in the pattern instructions, 28 the same kinds of linguistic problems that are likely to interfere with comprehension of any jury instructions were addressed: confusing or incoherent discourse organization, needlessly complex syntax (sentence structure), semantic obstacles like ambiguous or unfamiliar vocabulary, and text that invites incorrect inferences due to misleading wording or omitted information. 29 In addition, however, we paid particular attention to clarifying the three major legal points that seemed to confuse respondents in the Zeisel study: Unenumerated mitigators, non-unanimity on mitigators, and weighing.

Unenumerated mitigators. In the pattern instructions, the only clue to whether unenumerated factors may be used is provided in the following phrase, which appears in a logically inappropriate place as the last item in a list of specific possible mitigators:

[any other reason supported by the evidence why the defendant should not be sentenced to death]

Jurors hearing the pattern instructions are thus left to infer the degree and direction of their discretion on their own, having received no explicit instructions on: a) how to identify mitigating factors from among all the facts "supported by the evidence"; b) what criteria the law permits them to use in identifying mitigators beyond the specific examples provided; and c) what relation the enumerated factors have to the set of all possible mitigating factors.

The grammatically subordinate position of these words (as a phrase at the end of a list, as opposed to one or more full sentences within a regular paragraph) serves to obscure the importance of this instruction. Its unnecessary terseness diminishes its effectiveness further, especially because what is not said includes the fact that additional mitigators need bear no similarity at all to the enumerated ones. If this fact is not stated explicitly, jurors may consider enumerated items as exemplary, and thus limit any additional mitigator candidates to ones that are similar to the examples given. 30

[Some studies indicate jurors spend 20 to 25 percent of their time discussing instructions.]

Jurors hearing the pattern instructions are thus left to infer the degree and direction of their discretion on their own, having received no explicit instructions on: a) how to identify mitigating factors from among all the facts "supported by the evidence"; b) what criteria the law permits them to use in identifying mitigators beyond the specific examples provided; and c) what relation the enumerated factors have to the set of all possible mitigating factors.

In the revised instructions, the prominence of the instruction focusing on unenumerated mitigators was increased by raising it from its grammatically obscure position at the end of a list to a position within the full text, and by expanding it considerably to give more detailed guidance on identifying mitigating factors beyond the enumerated ones. Instead of leaving jurors to wonder about whether they could use unenumerated factors, or simply to assume (incorrectly) that they could not, they were told explicitly that they could. 31 And to correct an earlier source of confusion detected in the Zeisel study, they were told specifically: "In order to decide that something is a mitigating factor which would lessen the penalty, you do NOT have to believe that it excuses or justifies the crime itself."

Non-unanimity on mitigators. Since the pattern instructions include no text at all that describes the process by which mitigators are chosen, jurors may not realize that these decisions not only do not require unanimity, but actually can be as far from unanimity as possible, i.e., only one vote is needed—that of the individual juror. The text that does speak about mitigating factors obscures, or simply fails to express, this individual discretion in the following ways:

- Use of passive verbs without expressed agents: “Mitigating factors may be found” (cf. this possible alternative with an active verb and explicit agent: “You as an individual juror may decide on what counts as a mitigating factor.”)
- Omission of any phrasing that includes a human subject and a verb of choosing in discussion of the mitigating factors: “Mitigating factors include... [any other reason supported by the evidence why the defendant should not be sentenced to death.]”

This prose says nothing about what a juror or jurors actually do to distinguish between what counts and what does not count as a mitigating factor.

- The only two sentences that do use the pronoun you, thereby referring directly to the jurors, have the most complex sentence structure of all the sen-
stances in the pattern instructions. They each include a complex conditional (an if-then construction) containing several subordinate clauses and nominalizations, and either two or four negatives. (They also include two semantically troublesome words: the vague word sufficient, and the relatively unfamiliar and never-explained word preclude.) Thus, the only sentences that do include a second-person pronoun that might refer to an individual juror are just those sentences that are most likely to cause difficulty in comprehension—and have in addition the word unanimously within them.

To help jurors understand non-unanimity on mitigators, very explicit wording was used (e.g., each juror, the individual juror) to clarify the contrast between a unanimous, collective decision and the individual decision permitted here: “Illinois law permits each juror to decide for himself or herself whether one or more mitigating factors exist. Although the jury as a whole can of course discuss these matters, the decision about what counts as a mitigating factor in this case is one which the law leaves to the individual juror. Because of this, the jury does NOT need to reach a unanimous decision about what counts as a mitigating factor.”

Weighing: The only pattern instruction that tells jurors anything about what to do with the aggravating and mitigating factors they have identified reads as follows: “In deciding whether the defendant should be sentenced to death, you should consider all the aggravating factors supported by the evidence and all the mitigating factors supported by the evidence.”

This instruction uses only the vague and uninformative verb consider to characterize the task; nowhere in the pattern instructions are any of those more informative verbs weigh, outweigh, or balance.

Moreover, the wording of the pattern instructions up the number of aggravating factors and mitigating factors in order to see which number is bigger. Weighing the factors is not such a mechanical task, and there is no simple formula that you can apply to reach your decision. Instead, each juror must first decide how much weight or importance or significance to give to each relevant circumstance supported by the evidence, whether it falls in the aggravating category or the mitigating category. These are decisions that only you can make, and that the law says you may make individually on the basis of your own best judgment. Then, in light of

---

Comparison of pattern and revised instructions

Pattern instructions (titles in caps not in instructions):

1. Aggravating factors are reasons why the defendant should be sentenced to death.

2. Mitigating factors are reasons why the defendant should not be sentenced to death.

3. UNENUMERATED MITIGATORS: Mitigating factors include: [3 examples specified,* followed by: Any other reason supported by the evidence why the defendant should not be sentenced to death].**

Revised instructions (titles in caps not in instructions):

1. In a criminal case such as this one, an “aggravating factor” is any fact or condition or circumstance that, in your judgment, makes a sentence of death more appropriate for this defendant than a sentence of imprisonment.

2. Mitigating factors are the opposite of aggravating factors. That is, in a criminal case such as this one, a “mitigating factor” is any evidence regarding the defendant’s character or the circumstances of the crime that, in your judgment, makes a sentence of imprisonment more appropriate for this defendant than a sentence of death.... In order to decide that something is a mitigating factor which would lessen the penalty, you do NOT have to believe that it excuses or justifies the crime itself.

3. UNENUMERATED MITIGATORS: I will now give you some examples which, according to Illinois law, could be mitigating factors in a case like this. Remember that these examples are only examples. The law says that you can decide that something is a mitigating factor even if I do not mention it specifically, and even if it is not similar to any examples I have given you. Here are three examples that could be mitigating factors in a case like this: [3 examples specified]

---

*The pattern instructions list the six statutory mitigating factors and specify that the jury should be instructed only on those on the list of six with any support in the evidence.

**Since the Prehearing in 1992, the Illinois Pattern Jury Instructions have added the following sentence: “Where there is evidence of a mitigating factor, the fact that such mitigating factor is not a factor specifically listed in these instructions does not preclude your consideration of the evidence.” Whether jurors are assisted at all by this rather convoluted addition is an empirical question, but in any case, the new language does not address all the question whether acceptable mitigators must be similar to the listed examples. See text at note 80, supra.
tern instructions suggests in two major ways that the default sentence is death. First, when the pattern instructions refer to one or both penalties, they always use the word death—but never the word imprisonment. For example, the hearing is called “the death penalty hearing,” rather than “the sentencing hearing,” a more neutral formulation; what must be decided is said to be “whether the defendant should be sentenced to death,” rather than “whether a sentence of death or a sentence of imprisonment will be cho-

sen”; and the two possible sentences are described as “a death sentence” and “a sentence other than death.” Second, because the decision task is repeatedly framed in terms of deciding whether “there are no mitigating factors sufficient to preclude the imposition of a death sentence,” a reasonable juror could conclude that the death sentence is the default choice unless enough mitigators are found to “preclude” it. But this mistakenly implies that jurors must vote for death if they consider the aggravating and mitigating factors to be in equipoise, or if they cannot tell which set outweighs which.

The revised instructions show a more balanced, and more informative, vocabulary distribution. In references to the penalty or penalties, the word death occurs only 57 percent of the time [rather than 100 percent], while the word imprisonment appears 33 percent of the time [rather than never].

The words weigh, weight, or outweigh appear 17 times in the revised instructions, but never in the pattern instructions. In addition, the revised instructions include a section called “Weighing Aggravating and Mitigating Factors,” which explains in detail which decisions are to be made by individual jurors, which decisions by the jury as a whole, and the relation between them. It also lists the three possible ways an individual juror could decide the question of what outweighs what, and specifies the verdict for which the juror must vote in each case (including the less obvious situations of finding the two sets of factors to be in equipoise, or being unable to decide which set outweighs which). For a comparison of pattern and revised instructions, see below.

your own decisions, you must compare all the aggravating factors and their relative importance, with all the mitigating factors and their relative importance, in order to decide which group of factors outweighs the other group.”

35. 10 percent of the references to penalties in the revised instructions use neutral wording like “the penalty” or “this/the/a verdict.”

36. A copy of the revised instructions is available from the authors.

---

Pattern instructions
(titles in caps not in instructions):

4. WEIGHING: In deciding whether the defendant should be sentenced to death, you should consider all the aggravating factors supported by the evidence and all the mitigating factors supported by the evidence.... If you unanimously find from your consideration of all the evidence that there are no mitigating factors sufficient to preclude imposition of a death sentence, then you should sign the verdict form requiring the court to sentence the defendant to death. If you do not unanimously find from your consideration of all the evidence that there are no mitigating factors sufficient to preclude imposition of a death sentence, then you should sign the verdict form requiring the court to impose a sentence other than death.

5. NONUNANIMITY ON MITIGATORS: [No instruction is given on this issue]

---

Revised instructions
(titles in caps not in instructions):

4. WEIGHING: In order to weigh the aggravating factors, taken as a whole, against the mitigating factors, taken as a whole, you should NOT merely add up the number of aggravating factors and mitigating factors in order to see which number is bigger. Weighing the factors is not such a mechanical task, and there is no simple formula that you can apply to reach your decision.

Instead, each juror must first decide how much weight or importance or significance to give to each relevant circumstance supported by the evidence, whether it falls in the aggravating category or the mitigating category. These are decisions that only you can make, and that the law says you may make individually on the basis of your own best judgment. Then, in light of your own decisions, you must compare all the aggravating factors and their relative importance, with all the mitigating factors and their relative importance, in order to decide which group of factors outweighs the other group.

5. NONUNANIMITY ON MITIGATORS: Illinois law permits each juror to decide for himself or herself whether one or more mitigating factors exist. Although the jury as a whole can of course discuss these matters, the decision about what counts as a mitigating factor in this case is one which the law leaves to the individual jurors. Because of this, the jury does NOT need to reach a unanimous decision about what counts as a mitigating factor.

March-April 1996 Volume 79, Number 5 Judicature 229
The results
On each of the 19 questions, the revised instructions produced more correct and fewer incorrect responses than did the pattern instructions. The probability that all of these differences would be in the same direction if the revised instructions did not affect comprehension is less than 1 in 500,000. Moreover, overall average performance was significantly better with the revised instructions, whether the index used was percent correct or percent incorrect. Percent correct increased on average from 50 to 65 percent; incorrect dropped from an average of 45 percent to an average of 30 percent. The revised instructions also caused a substantial improvement in juror performance on the comprehension questions on each of the three issues raised by Free (see Table 1).

The revised instructions produced the greatest improvement on the questions involving unenumerated mitigators—the issue that caused the greatest confusion when the jurors received the pattern instructions. On those questions, jurors who received the pattern instructions averaged 41 percent correct (55 percent incorrect), while jurors who received the revised instructions averaged 58 percent correct (36 percent incorrect). Percent correct on questions regarding weighing increased from 51 percent to 66 percent (percent incorrect dropped from 42 percent to 30 percent). Although the revised instructions did increase juror comprehension substantially on these two issues, the opportunity to deliberate did not: deliberators and non-deliberators did not differ in their ability to answer the comprehension questions on these two issues.

On the third issue, non-unanimity on mitigators, the revised instructions also produced a significant and substantial increase in comprehension, from 65 percent to 81 percent (a drop in percent incorrect from 28 percent to 17 percent). In addition, however, deliberation also increased the comprehension of the jurors on this issue: non-deliberators averaged 67 percent correct, while jurors who deliberated averaged 79 percent correct (deliberation reduced percent incorrect from 30 percent to 14 percent). The influence of deliberation was independent of the effect of the revised instructions. Thus, jurors who both received the revised instructions and had an opportunity to deliberate responded to both aids by showing the highest comprehension levels (88 percent) on non-unanimity on mitigators. This high level of comprehension not incidentally indicates that jurors can demonstrate impressive performance on paper and pencil tests—on at least some issues—when they are given the needed assistance.

More importantly, the significant and isolated positive effect of deliberation on comprehension on the single issue of non-unanimity on mitigators suggests why earlier studies have shown little or no effect of deliberation on comprehension. Ellsworth, for example, found that non-deliberating jurors performed quite well on a test of factual issues, but at no better than chance level on a test assessing comprehension of the judge’s instructions. Deliberation further improved performance on the factual issues, but had no effect on comprehension of the law. Only half of the statements on the law jurors made during deliberations were correct. Moreover, although jurors tended to correct inaccurate statements of fact during deliberations, they generally failed to correct the inaccurate statements made about the law. The finding that deliberation improved performance only on non-unanimity of mitigators suggests that deliberation can be depended upon to improve comprehension only when a substantial majority of the members of a jury begin deliberations with a correct understanding of the information at issue.

Using the deliberating jurors as the basis for comparison, revising the instructions had the effect of increasing the performance of deliberating jurors on average from 52 percent to 67 percent correct (and decreasing the incorrect rate from 42 percent to 27 percent) across the three issues studied. It is of course up to policy makers rather than researchers to determine acceptable levels of comprehension, but these results indicate that a comprehension level of 52 percent is a cost that neither the legal system as a whole, nor capital defendants in particular, must pay in capital sentencing hearings.

Moreover, the 67 percent performance obtained here was the product of a single rewrite. The jurors studied by Ellsworth, Alfini, and Sales averaged 80 percent correct on instructions in a complex criminal case

<p>| Table 1 Effects of revising instructions on juror comprehension (percent correct) |
|---------------------------------|-----------------|-----------------|-----------------|
| Unenumerated mitigating factors (7 questions) | Non-unanimity on mitigating factors (3 questions) | Weighing (9 questions) |</p>
<table>
<thead>
<tr>
<th>original</th>
<th>revised</th>
<th>original</th>
<th>revised</th>
<th>original</th>
<th>revised</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>64</td>
<td>75</td>
<td>81</td>
<td>71</td>
<td>75</td>
</tr>
<tr>
<td>52</td>
<td>75</td>
<td>55</td>
<td>80</td>
<td>62</td>
<td>67</td>
</tr>
<tr>
<td>58</td>
<td>75</td>
<td>66</td>
<td>81</td>
<td>53</td>
<td>62</td>
</tr>
<tr>
<td>55</td>
<td>74</td>
<td>68</td>
<td>81</td>
<td>20</td>
<td>37</td>
</tr>
<tr>
<td>51</td>
<td>73</td>
<td>64</td>
<td>68</td>
<td>64</td>
<td>78</td>
</tr>
<tr>
<td>47</td>
<td>67</td>
<td>62</td>
<td>63</td>
<td>54</td>
<td>67</td>
</tr>
<tr>
<td>38</td>
<td>46</td>
<td>65</td>
<td>51</td>
<td>43</td>
<td>55</td>
</tr>
<tr>
<td>31</td>
<td>44</td>
<td>66</td>
<td>50</td>
<td>53</td>
<td>71</td>
</tr>
<tr>
<td>Average</td>
<td>41</td>
<td>58</td>
<td>65</td>
<td>81</td>
<td>51</td>
</tr>
</tbody>
</table>

---

37. Percent incorrect reflects the proportion of jurors who explicitly gave an incorrect answer, while percent correct reflects the proportion of jurors who explicitly gave the correct answer. Because jurors could choose a "do not know" option, the total of percent correct and percent incorrect sums to less than 100 percent.

38. The difference due to instruction was significant at p<.005 for percent correct and percent incorrect on all three issues. All analyses tested for effects of instruction (pattern or revised) and deliberation (present or absent), nesting juror responses within jury to account for potential correlation of responses among members of the same jury.

39. Deliberation increased the accuracy of jurors who received the pattern instructions from 61 percent correct to 70 percent correct; it increased the accuracy of jurors who received the revised instructions from 72 percent correct to 88 percent correct.

40. Supra n. 2, at 219.
that had undergone two rewrites. Concepts vary in their difficulty, and it is unclear whether similar results could be obtained with these capital instructions. Nonetheless, the results show that a single rewrite was able to significantly reduce the juror confusion revealed in the original Zeisel survey and demonstrate that the high confusion levels revealed by Zeisel’s research were not due simply to jurors’ poor testing abilities.

Content of deliberations
Juror discussions during the deliberation period suggest how the revised instructions produced greater clarity. We tabulated each time a juror mentioned a characteristic of the defendant or the offense (e.g., his age; that he was carrying a gun; that he was under the influence of drugs) that might affect the penalty he should receive, and coded whether the factor was explicitly enumerated in the judge’s instructions. Although jurors who heard the revised instructions and those who heard the pattern instructions made a similar number of comments regarding factors to be considered in deciding on the appropriate sentence, jurors who heard the revised instructions referred somewhat more often to unenumerated factors (51 per jury vs. 38 per jury). Thus, the jurors who heard the pattern instructions were more likely to confuse their attention primarily to the exemplars on the list, while those hearing the revised instructions engaged in a broader consideration of unlisted factors.

All references by jurors to aggravating and mitigating factors, whether specific (e.g., “he had no history of violence”) or general (e.g., “we have to decide if there were aggravating factors”) were also coded. The jurors receiving the revised instructions and those receiving the pattern instructions gave equal attention to aggravating factors. When it came to mitigating factors, however, the jurors who heard the revised instructions were somewhat more likely to refer to mitigation (54 per jury), than the jurors who heard the pattern instructions (45 per jury).

Finally, there were relatively few references during the deliberations to weighing or balancing, 42 in all, but 29 (70 percent) of them came from jurors who heard the revised instructions.

Courts cannot depend on deliberations to correct juror misunderstandings.

that explicitly discussed the weighing standard. Thus, the content of the discussions mirrors the pattern found on the questionnaire measures: the revised instructions encouraged jurors to consider unenumerated mitigating factors, to determine individually what mitigators are worthy of consideration, and to apply a weighing standard in reaching a decision on the appropriate penalty.

Verdict preferences
Jurors who received the revised instructions obtained a clearer understanding of the range of potential mitigators, the weighing standard, and the ability of an individual juror to determine that a mitigator is present. In light of this greater appreciation of the meaning of mitigation and its role in balancing the likelihood of a death sentence, a positive correlation between performance on the comprehension measure and likelihood of voting against death can be expected, and indeed that was the case. For percent correct, the correlation was .20, (p<.05). Thus, jurors who understood the instructions better were less likely to lean toward a sentence of death.

All of these results support the district court’s original conclusion that James Free was sentenced to death by a jury that received unnecessarily confusing instructions, but they came too late for Mr. Free. He was executed on March 22, 1995.

Implications for reform
Recent suggestions for jury reform have included a number of changes intended to increase juror comprehension of instructions. They include pre-instruction, so that jurors begin the trial with some knowledge about what is legally relevant; providing written copies of instructions for jurors during deliberations; and changing the timing of closing arguments so that attorneys can comment on rather
than refer forward to the instructions.\(^{46}\) While each of these proposals offers promise, all are aimed primarily at facilitating recall. The value of increased recall, however, depends on the value of what is being recalled. Even if the members of a jury were able to recite the contents of the judicial instructions verbatim, the guidance provided by those instructions would be limited by the meanings that the jurors drew from them. If those meanings deviated substantially from the legally intended ones, the result would be perfect recall—and gross miscommunication.

How can we maximize the likelihood that jurors will reach a decision that is informed by relevant legal principles? This research on the Free instructions indicates that courts cannot depend on deliberations to correct misunderstandings shared by a significant proportion of the jurors.\(^{47}\) Judge Bauer's confidence in the corrective power of deliberations appears warranted only when an instruction is initially understood by a substantial majority. Only then is a jury well-positioned to correct confusion among its members.

A fundamental step in improving the ability of legal instructions to convey legal standards not only accurately but effectively is to rewrite the instructions by applying linguistic principles that identify which features of language facilitate comprehension of a text, and which interfere with it. However, experience in analyzing, revising, and testing the Illinois death penalty instructions suggests that more is required. For jury instructions to communicate effectively, they need not only legal accuracy and clear exposition but also to address the way juror meanings may differ from legal meanings.

First, jurors may assign meanings to words and phrases without realizing that their meanings are different from the intended legal meaning (e.g., by deciding that proximate cause equals “approximate cause,” or that aggravating has the common meaning of “irritating”). In such situations, jurors will believe that they understand the instructions and thus will not ask questions. Second, jurors may be unable to assign any meaning at all to a given word or phrase because they lack the legal background of attorneys who draft these instructions. Here they may be aware that they do not understand a passage like, “If the parties have stipulated to any fact, . . .” but feel frustrated, so that they simply give up and fail to seek assistance or clarification from other jurors or the judge.

Experience suggests that the optimal way to diagnose and remedy comprehension problems in jury instructions (such as discrepancies between legal terminology and common usage) entails a collaboration among attorneys and/or judges, psychologists, and linguists. For example, conversations with the attorneys from the MacArthur Justice Center assisted us in understanding the significant legal principles that the Free instructions were attempting to communicate and in identifying potential points of confusion. In addition, a valuable though often ignored source of guidance is the jurors themselves. Most current attempts to clarify judicial instructions neglect input from jurors, yet research has shown that jurors are active interpreters who bring their lay expectations and understandings to the task of interpreting legal instructions.\(^{48}\) Thus, from the questions they ask the judge during deliberations, from post-trial interviews, and from jury experiments using simulated cases, we can obtain guidance in identifying sources of miscomprehension and unintended meanings. We can also learn how juror beliefs and expectations about the legal system may lead them to erroneous interpretations about legally relevant concepts.\(^{49}\)

Finally, precisely because jurors may travel through this legal maze along unanticipated routes, a serious attempt to improve communication ought not end when a new set of instructions is written. The only way to ensure that the new language has increased comprehension—and that it has not unintentionally introduced new and different problems—is to test juror reactions to the revised instructions. Moreover, testing is necessary to assess when an acceptable level of performance has been achieved and to identify where further efforts at improvement should be made. Although empirical testing of revised jury instructions was recommended by El-work, Sales, and Alfani as early as 1982,\(^{50}\) the few states that have revised their jury instructions to make them more intelligible have generally omitted testing and simply assumed that the changes produced improvements.\(^{51}\) Although testing undeniably increases the cost of improving jury instructions, the alternative is an investment in revisions that are inadequate or even harmful.

A case-by-case approach to improving jury instructions is a time-consuming and costly enterprise. The alternative is to make tests of comprehensiveness a part of the drafting activities of jury instructions committees so that judges are not encouraged or required to introduce jury instructions that fail to communicate.

Where to begin? One approach would be to focus on instructions that appear in a high percentage of jury trials; another would be to concentrate on the most complicated legal constructs on the theory that they are most likely to cause confusion. We suggest a third approach: in view of the constitutionally mandated guidance required in capital cases, improving the clarity of death penalty instructions appears to be an appropriate and indeed a necessary place to institute reform.\(^{52}\)

---