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Notes and Comments

On Instructing Deadlocked Juries

In the summer of 1965, Thomas F. Murphy, a capable but crusty federal judge in the Southern District of New York, was presiding at the trial of a revenue agent for accepting bribes. The trial was not long, nor the issues complex, and in the mind of Judge Murphy the case was a simple one. But a minority of the jurors thought otherwise, and after three and a half hours in the jury room, they sent a message that they were "hopelessly deadlocked." Judge Murphy called them in and, following his usual practice on such occasions, delivered to them a quotation, slightly modified, from the opinion of the Supreme Court in Allen v. United States, a case decided in 1896. The jury recommenced deliberations and promptly returned a verdict of guilty. The Court of Appeals upheld the verdict by only "the barest margin"; there would have been error, the court said, had an unmodified Allen charge been given.

One suspects that Judge Murphy was surprised. His charge to the jury was of the type known as a "supplementary instruction"—given when the jury appears to be deadlocked—and in both federal and

3. 164 U.S. 492 (1896). Charges like Judge Murphy's, based on the language of the Allen case, are usually referred to as "Allen charges," although this is not strictly correct. The instruction actually delivered in Allen was based on the charge of Hoar, J., approved in the early case of Commonwealth v. Tuey, 62 Mass. (8 Cush.) 1 (1851).
4. 354 F.2d at 784.
5. His certainty that the Allen charge was proper appears from the following colloquy with counsel:
   The Court: I have a note from the jury, which reads, "Jury hopelessly deadlocked. No change in sight."
   [Prosecutor]: I would request an Allen charge.
   [Defense Counsel]: Oh, no, your Honor.
   The Court: What do you mean no? I would give it to my mother.
   [Defense Counsel]: That is highly questionable.
   The Court: Take your exception, gentlemen, and bring the jury in.
6. E.g., criminal cases: Fulwood v. United States, 369 F.2d 960 (D.C. Cir. 1966), cert. denied, 387 U.S. 934 (1967); Estes v. United States, 335 F.2d 609 (5th Cir. 1964); United States v. Kahaner, 317 F.2d 459 (2d Cir.), cert. denied, 375 U.S. 836 (1963); Kleven v. United States, 240 F.2d 270 (8th Cir. 1957); Speak v. United States, 161 F.2d 562 (10th Cir. 1947); United States v. Olweiss, 138 F.2d 798 (2d Cir. 1943), cert. denied, 321 U.S. 744 (1944); Bord v. United States, 138 F.2d 313 (D.C. Cir.), cert. denied, 317 U.S. 671 (1942); Paschen v. United States, 70 F.2d 491 (7th Cir. 1934); Johnson v. United States, 5 F.2d 471
state courts supplementary instructions have a long, if not always honorable, history. The practice of giving supplementary instructions, already "familiar" in 1894, was approved by the Supreme Court in \textit{United States v. Allis},\footnote{190 F.2d 592 (D.C. Cir. 1952) ("better to avoid . . . the practice of supplementary charges"); Peterson v. United States, 213 F. 920 (9th Cir. 1914).} and that case stands unmodified and apparently unshaken.\footnote{Cf. also \textit{Andrews v. United States}, 357 U.S. 717 (1952).} The quotation from the \textit{Allen} case on which Judge Murphy's charge rested is not the only standard-form supplementary instruction,\footnote{See \textit{Isaacs v. United States}, 298 F.2d 63 (2d Cir. 1962); \textit{Railway Express Agency v. Mackey}, 181 F.2d 257 (8th Cir. 1950); \textit{Hoagland v. Chestnut Farms Dairy}, 72 F.2d 729 (D.C. Cir. 1934); \textit{Hill v. Wabash Ry.}, 1 F.2d 626 (8th Cir. 1924); \textit{Lehigh Valley R. Co. v. Allied Mach. Co.}, 271 F. 900 (2d Cir.) \textit{cert. denied}, 226 U.S. 194 (1912); \textit{Boston & Me. R. R. v. Stewart}, 254 F. 14 (1st Cir. 1918).} but until recently it has been the most popular. For there the
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\item[(4th Cir.)] \textit{cert. denied}, 269 U.S. 574 (1925); \textit{Shalman v. United States}, 259 F. 370 (3d Cir. 1925); \textit{Suszak v. United States}, 213 F. 913 (9th Cir. 1914); \textit{Shepard v. United States}, 160 F. 584 (8th Cir.) \textit{cert. denied}, 212 U.S. 571 (1908); \textit{Allis v. United States}, 73 F. 165 (C.C.E.D. Kan. 1899) \textit{cert. denied}, 155 U.S. 117 (1894). \textit{But see Mendelson v. United States}, 58 F.2d 592 (D.C. Cir. 1932) ("better to avoid . . . the practice of supplementary charges"); Peterson v. United States, 213 F. 920 (9th Cir. 1914).
\item[Civil cases:] \textit{Yount v. Positive Safety Mfg. Co.}, 319 F.2d 639 (5th Cir. 1963); \textit{John Fabrick Tractor Co. v. Lizza & Sons}, 293 F.2d 65 (2d Cir. 1962); \textit{Railway Express Agency v. Mackey}, 181 F.2d 257 (8th Cir. 1950); \textit{Hoagland v. Chestnut Farms Dairy}, 72 F.2d 729 (D.C. Cir. 1934); \textit{Hill v. Wabash Ry.}, 1 F.2d 626 (8th Cir. 1924); \textit{Lehigh Valley R. Co. v. Allied Mach. Co.}, 271 F. 900 (2d Cir.) \textit{cert. denied}, 226 U.S. 194 (1912); \textit{Boston & Me. R. R. v. Stewart}, 254 F. 14 (1st Cir. 1918).
\item[8.] \textit{E.g., Bernal v. United States}, 241 F. 339 (6th Cir. 1917) \textit{cert. denied}, 245 U.S. 672 (1918) (no error to tell jury that "the most stubborn thing on the face of this earth is a jackass" and that "the United States might as well by special statute abolish the Court of the Western District of Texas if juries are never to agree").
\item[9.] 155 U.S. 117, 125 (1895).
\item[11.] Also in common use are the charge delivered by Judge Walter H. Sanborn in \textit{United States v. Allis}, 73 U.S. 165 (8th Cir. 1898), and approved in \textit{Allis v. United States}, 155 U.S. 117 (1894), and a blended version of both \textit{Allis} and \textit{Allen} delivered by Judge Mathes in \textit{United States v. Kawakita}, 96 F. Supp. 824, 855-57 (S.D. Cal. 1950) \textit{aff'd}, 190 F.2d 506 (9th Cir. 1951), 345 U.S. 717 (1952). The \textit{Kawakita} charge is reprinted in Judge Mathes's manuals on jury instructions for federal judges. 28 F.R.D. 401, 454-56 (1963); 27 F.R.D. 39, 102-04 (1961). It should be remembered that many judges fail to use standard-form supplementary instructions. \textit{See note 18 infra.}
\end{itemize}
Supreme Court laid down the law in somber legal language calculated to impress a wayward juror:

[T]hat in a large proportion of cases absolute certainty could not be expected; that although the verdict must be the verdict of each individual juror, and not a mere acquiescence in the conclusion of his fellows, yet they should examine the question submitted with candor and with a proper regard and deference to the opinions of each other; that it was their duty to decide the case if they could conscientiously do so; that they should listen, with a disposition to be convinced, to each other's arguments; that, if much the larger account; that if any member should find himself in a small minority and disposed to differ from the rest, he should consider the matter carefully, weigh the reasons for and against his view, and remember that he may be wrong; that if, on so doing, he can honestly bring himself to come to a different view and thus to concur in the view of the majority, he should do so, but if he cannot do so, consistently with the oath he has taken, and he cannot bring the others round to his point of view, then it is his duty to differ, and for want of agreement, there will be no verdict.

1. 164 U.S. 492, 501-02 (1896). The quotation is the Supreme Court's paraphrase of the instruction actually given; the Court went on to set out its own conception of the jurors' duties.

While, undoubtedly, the verdict of the jury should represent the opinion of each individual juror, it by no means follows that opinions may not be changed by conference in the juryroom. The very object of the jury system is to secure unanimity by a comparison of views, and by arguments among the jurors themselves. It certainly cannot be the law that each juror should not listen with deference to the arguments and with a distrust of his own judgment, if he finds a large majority of the jury taking a different view of the case from what he does himself. It cannot be that each juror should go to the jury-room with a blind determination that the verdict shall represent his opinion of the case at that moment; or, that he should close his ears to the arguments of men who are equally honest and intelligent as himself.

Strictly speaking, the Allen case is authority only for the paraphrase in the first paragraph; but courts have ignored the distinction by reading both paragraphs to deadlocked juries, as Judge Murphy did in Kenner, supra note 1, Orton v. United States, 221 F.2d 632 (4th Cir.), cert. denied, 350 U.S. 821 (1955). Only the Eighth Circuit appears to have made a serious effort to separate the Allen instruction from the Allen opinion, holding that quotation from the opinion constituted reversible error. Chicago & E.I. Ry. Co. v. Sellars, 5 F.2d 31 (8th Cir. 1925); Nigro v. United States, 4 F.2d 781 (8th Cir. 1925). This position was not adopted by other circuits, e.g., Dwyer v. United States, 17 F.2d 696 (2d Cir. 1927), and its status even in the Eighth Circuit is doubtful. Cf. Thompson v. Allen, 240 F.2d 266 (8th Cir. 1956). The whole matter is made very fuzzy by the tendency of appellate courts not to quote exactly what the trial judge said, and by the freedom with which homemade paraphrases of the Supreme Court's language are upheld as Allen charges. Cf. note 18 infra. In any case, courts are obliged to be careful about the language they use to justify an approved instruction, Compare Selden v. United States, 16 F.2d 197 (2d Cir. 1926), where Learned Hand lashed out at juries that "set at defiance law and reason," with Wissel v. United States, 22 F.2d 468 (2d Cir. 1927), where the trial judge was reversed for telling a jury what Hand said they could not do.

A second problem with the Allen opinion is that the charge delivered, if it was in fact the Tuey charge, included a reinstatement on burden of proof and presumption of innocence. Although the Court's paraphrase omitted this portion of the Tuey charge, Chief Judge Aldrich of the First Circuit has recently suggested that it was an "integral part of the Allen charge, the leaven making it palatable." Pugliano v. United States, 348 F.2d 903 (1st Cir. 1965).

At one time, indeed, the Tenth Circuit required a reinstatement on burden of proof as part of the Allen charge. See Apodaca v. United States, 188 F.2d 502 (10th Cir. 1951); Speak v. United States, 161 F.2d 502 (10th Cir. 1947); Berger v. United States, 62 F.2d 438 (10th Cir. 1932). But this doctrine appears to have lapsed. DeVault v. United States, 338 F.2d 179 (10th Cir. 1964); Carter v. United States, 333 F.2d 354 (10th Cir. 1964).
number were for conviction, a dissenting juror should consider whether his doubt was a reasonable one which made no impression upon the minds of so many men, equally honest, equally intelligent with himself. If, upon the other hand, the majority was for acquittal, the minority ought to ask themselves whether they might not reasonably doubt the correctness of a judgment which was not concurred in by the majority.

Though upholding Judge Murphy, the Second Circuit now announced that it had "grave doubts whether the charge as given was not unduly coercive."13

The Second Circuit does not stand alone in its doubts as to the Allen charge.14 Hostility to the Allen charge has been growing for some time,15 apparently on the theory that the charge is a relic of an otherwise discarded procedure.16 As Judge Brown said in Huffman v. United States:17

13. 354 F.2d 780, 783-84 (2d Cir.), cert. denied, 383 U.S. 958 (1965). These doubts seem to have been resolved in later cases, as the Second Circuit has upheld substantially the same as Judge Murphy's. United States v. Rao, 394 F.2d 354 (2d Cir.), cert. denied, 377 U.S. 915 (Oct. 15, 1969); United States v. Bilotti, 389 F.2d 659 (2d Cir. 1967), cert. denied, 391 U.S. 958 (1968).


15. "Nor do we circulate the 'Allen charge' to the new judges as I used to do when heading up the criminal division in the Department of Justice. Allen is dead and we do not believe in dead law." Mr. Justice Clark in Clark, Progress of Project Effective Justice—A Report on the Joint Committee, 47 J. Am. Jud. Soc'y 88, 90 (1963). But hostility to Allen may not extend to trial judges. In the Fifth Circuit, at least, both Judge Coleman and Judge Wisdom believe its use is becoming more frequent. Thaggard v. United States, 354 F.2d 785 (5th Cir. 1965) (dissent), cert. denied, 383 U.S. 958 (1966); Andrews v. United States, 309 F.2d 127 (5th Cir. 1962) (dissent).

16. Judges are fond of citing Blackstone's remark that, if the jury failed to agree, they were locked up in a cart, without meat, drink, fire, or candle, and followed the judge from town to town. Only a verdict could secure their release. Walker v. United States, 342 F.2d 22, 28 (5th Cir. 1965) (Brown, J., dissenting); United States v. Samuel Dinkel & Co., 173 F.2d 806, 808 (2d Cir. 1949); Kramer v. Kister, 187 Pa. 227, 40 A. 1609 (1918). Jurors might be fined if found with unauthorized victuals. P. Devlin, Trial by Jury 50-51 (1956) reprints the following account of a search designed to ensure that jurors truly hungered after justice:

The jury being withdrawn after Evidence, and remaining a long Time without
"The fact is that in many phases of criminal law we have come a long, long way since 1896. There is no longer any place for the *Allen* charge."

The revolution in trial procedure worked in recent years by the Supreme Court means that many judges now take sterner views of practices they once condoned. Thus in 1960 District Judge Skelly Wright was routinely delivering *Allen* charges in New Orleans. Only four years later, as a circuit judge in the District of Columbia, he noted that the charge was generally "condemned as a 'dynamite' charge" and cited with approval cases restricting its use.

In the minds of some, dislike of the *Allen* charge has spilled over into a wholesale condemnation of supplementary instructions, a tendency concluding on their Verdict, the Officers, who attended them, seeing their Delay, searched them, and found that some had Figs and others had Pippins; which being moved to the Court, they were examined on Oath, and two of them confessed that they had eaten Figs before they were agreed on their Verdict, and three confessed that they had Pippins, but had not eat any of them; and that this was unknown to the Parties. Those who had eaten were each of them fined five Pounds, and those who had not eaten the Pippins, were each of them fined forty Shillins; but the Verdict was, upon great consideration, and Conference with the other Judges, held to be good.

Nor have all Americans yet made a clear break with their ancestors' tradition. At least one commentator maintains the view that it is unconstitutional to permit a jury to hang. Icenogle, *The Menace of the Hung Jury*, 47 A.B.A.J. 280 (1961). And in 1941 in Wisconsin, a trial judge was reversed for threatening to keep a jury overnight in an unheated room. Mead v. City of Richland Center, 297 Wis. 537, 297 N.W. 419 (1941).

17. 297 F.2d 754, 759 (5th Cir. 1962) (dissent).
19. Jenkins v. United States, 330 F.2d 220, 222 (D.C. Cir. 1964) (dissent). It is true that Judge Wright had employed *Allen* in civil cases, and attacked it in a criminal one; yet his criticisms are not limited to criminal cases.
20. I cannot see that the qualifications, reservations, and escape clauses customarily used in modern versions of the [Allen] charge save it from being what it is, and what the jury believes it to be, a direct appeal from the Bench for a verdict.

The real burden of what I am saying is that the essential meaning of Constitutionally guaranteed trial by jury is that once the jury has retired to consider of its verdict it should not be subjected to so much as the appearance of any influence from any source for the purpose of producing a verdict. The jurors should be left to the unhampered expression of their own consciences, independently arrived at. Coleman, J., in Thaggard v. United States, 354 F.2d 735, 739-41 (5th Cir. 1965) (dissent), cert. denied, 383 U.S. 958 (1966). The author of Note, *Due Process, Judicial Economy and the ''Hung Jury'': A Re-Examination of the Allen Charge*, 53 VA. L. REV. 123 (1967) expresses the same view. Id. 148-49. In several cases, courts have suggested that it is the delivery of the *Allen* charge as a supplementary instruction, not its statement of the law, that renders it dangerous. delivered as part of the charge-in-chief, the coercive effect is minimized. Burrup v. United States, 371 F.2d 556 (10th Cir. 1967); Kent v. United States, 343 F.2d 247, 261 (D.C. Cir. 1965), rev'd on other grounds, 383 U.S. 541 (1966); Janko v. United States, 281 F.2d 156 (8th Cir. 1960); Nick v. United States, 122 F.2d 660 (8th Cir.), cert. denied, 314 U.S. 687 (1941). But other cases consider the charge as bad in the original as in the supplementary instructions, Green v. United States, 309 F.2d 852 (5th Cir. 1968); State v. Thomas, 86 Ariz. 161, 342 P.2d 197 (1959), or suggest that the charge is properly delivered only after a "reasonable time" or if the jury has reported disagreement. United States v. Barnhill, 305 F.2d 164 (6th Cir. 1962); United States v. Furlong, 191 F.2d 1 (7th Cir.), cert. denied, 343 U.S. 950 (1952); Hill v. Wabash Ry. Co., 1 F.2d 626 (8th Cir. 1924). Cf. Andrews v. United States, 309 F.2d 127, 129 (5th Cir. 1962) (dissenting opinion).
aided by the confusing and inaccurate practice of calling almost any supplementary instruction an "Allen charge." But most judges have followed lines similar to those laid down by Judge Murphy: not all supplementary instructions are bad, only those considered too "coercive." Yet the courts have failed to develop any coherent theory of what makes a charge impermissibly "coercive." Most courts indulge in more or less sophisticated question-begging—some glorying in purely verbal distinctions, others confining scrutiny to whether the charge is "stronger" than some fixed standard. Still other courts indulge in an

21. "The designation of 'an Allen charge' has tended to become an over-simplification since, as might be expected, the express words before the Supreme Court in the Allen case have, in the intervening years, been frequently rearranged or altered, with resulting variations in emphasis or impact." Kent v. United States, 343 F.2d 247, 261 n.22 (D.C. Cir. 1965). A good example of the prevailing confusion is the treatment of Judge Mathes's modified Allen charge, reprinted at 27 F.R.D. 39, 102-04 (1961). In Strangway v. United States, the Ninth Circuit upheld the delivery of Judge Mathes's charges, pointing out that it was "substantially different" from the Allen charge. 312 F.2d 283, 286 n.4 (9th Cir. 1963). Yet in Huffman v. United States, Judge Brown in dissent claimed that the popularity of the Mathes charge only indicated the increasing use made of the Allen charge. 297 F.2d 754, 759 (5th Cir. 1962).

22. "We fail to perceive, ... how criminal justice could be reasonably administered if a jury had to be discharged the first moment it stated that its members could not agree." United States v. Rosso, 58 F.2d 197, 201 (2d Cir. 1932) (A. Hand, J).

23. The propriety of an instruction such as we have under consideration must be determined from whether it had a tendency to coerce the jurors in their deliberations so that the verdict which they ultimately reached and returned into court was not truly their own, but was brought about in part by coercion from the court. Speak v. United States, 161 F.2d 562, 565 (10th Cir. 1947). For others among the very numerous cases applying the language of coercion, see United States v. Rogers, 289 F.2d 433 (4th Cir. 1961); Thompson v. Allen, 240 F.2d 266 (10th Cir. 1955); Weathers v. United States, 126 F.2d 118 (5th Cir. 1942); Berger v. United States, 62 F.2d 438 (10th Cir. 1932); Shaffnan v. United States, 289 F. 370 (3d Cir. 1923); Peterson v. United States, 213 F. 920 (9th Cir. 1914).

24. Consider the doctrine of Wissel v. United States, 22 F.2d 468 (2d Cir. 1927), a case often cited:

Pressure of whatever character, whether acting on the fears or hopes of the jury, if so exerted as to overbear their volition without convincing their judgment, is a species of restraint under which no valid judgment can be made to support a conviction. No force should be used or threatened, and carried to such a degree that the juror's discretion and judgment is overborne, resulting in either undue influence or coercion. A judge may advise, and he may persuade, but he may not command, unduly influence, or coerce.

Id. at 471. Other circuits allow "indoctrination," Carter v. United States, 393 F.2d 354 (10th Cir. 1968), "assistance," Hill v. Wabash Ry., 1 F.Rd 626 (6th Cir. 1924), or "guidance," United States v. Smith, 303 F.2d 341 (4th Cir. 1962). Under such circumstances a prudent trial judge will accept the urging of an appellate court that he stick to an approved pattern instruction. See Fulwood v. United States, 369 F.2d 960 (D.C. Cir. 1966); Berger v. United States, 62 F.2d 438 (10th Cir. 1932); Stewart v. United States, 300 F. 769 (8th Cir. 1924).

25. The standard is usually the Allen charge itself, which has been held to be the "outer boundary" to which a trial judge can go. Green v. United States, 309 F.2d 852 (5th Cir. 1962); Powell v. United States, 297 F.2d 318 (5th Cir. 1961); United States v. Rogers, 289 F.2d 433 (4th Cir. 1961). In its most reasonable form, this doctrine is merely a none-too-elegant method of begging the question. Instead of saying simply that a charge is "too coercive," the court says, with exactly the same lack of analysis, that it is "stronger" than the Allen charge and hence impermissible. E.g., Thaggard v. United States, 354 F.2d 795 (5th Cir. 1965) (Coleman, J., dissenting); Green v. United States, 309 F.2d 852 (5th Cir. 105
elaborate "balancing" process whose principal effect, if successful, is to render the entire instruction pointless.20

The difficulty in the courts' approaches is that the problem of the supplementary instruction cannot be solved without reference to the goals of the jury system. The framing of proper supplementary instructions depends on a comprehension both of the nature and purposes of the unanimity rule and of the patterns of influence among jurors and between juror and judge. The supplemental instruction then becomes but an element in a more general model and a part of the broader question—in what ways may the judge influence the jurors?

1962); United States v. Smith, 303 F.2d 341 (4th Cir. 1962); Powell v. United States, 297 F.2d 518 (5th Cir. 1961). At times, however, the doctrine becomes either ludicrous or confusing or both. Exegesis of the differences between a given charge and the Allen model may take the form of a line-by-line comparison of the two, as in Huffman v. United States, 297 F.2d 754 (5th Cir. 1962), where Judge Brown compiled a list of 13 particulars where the charge as given differed from the Allen charge. 297 F.2d at 757-58. But such comparisons are meaningless if, as tends to be the case, no reasoning is provided to explain why one phrase is acceptable and the other is not. Still odder are cases like Jenkins v. United States, 330 F.2d 220 (D.C. Cir. 1964), where the D.C. Circuit was so mesmerized by the belief that the Allen charge alone was the enemy that it devoted much of an opinion to demonstrating that a complained-of charge was not Allen. Ignored entirely was a flat misstatement of the law, on which the Supreme Court later relied in reversing: the trial judge had told the jury that they had "got to agree." Jenkins v. United States, 380 U.S. 445 (1965).

Even apart from the anomalies of a case like Jenkins, the rule that the Allen charge is the outer boundary of the trial judge's discretion is of questionable validity. The decision in Rogers v. United States, supra, whence the doctrine sprung, is a good example of the ingenious disingenuity with which judges sometimes change the law. The court began with the notion that Brasfield v. United States, 272 U.S. 448 (1926), stood for the proposition that inquiry into the division of the jury combined with an Allen charge required reversal. In fact, it is clear that the Supreme Court in Brasfield was quite indifferent to the presence of an Allen charge: though one was delivered, the Supreme Court's opinion does not mention it. Rather, the opinion goes off on the supposed invariable harm resulting from the judge's asking how the jury was divided. 272 U.S. at 450. See p. 133 infra.

Having "established" this premise, the Rogers court then made good use of the forty years of criticism that have been heaped on the inflexible Brasfield rule. See note 97 infra. Armed with such criticism, and with its own belief that an inquiry into the jury's division was but a "trifling addition" to the impact of the Allen charge, 289 F.2d at 436, the court in Rogers was able to complete the elegant syllogism it had mapped out. If Brasfield held that inquiry plus the Allen charge yielded reversal, and if inquiry was a trifling matter, then surely a judge who delivered an Allen charge was teetering on the brink of reversal.

26. The required "balancing" is between urgings to agreement and urgings not to surrender conscientious convictions. Ebel v. United States, 304 F.2d 127 (10th Cir. 1963); Estes v. United States, 335 F.2d 600 (5th Cir. 1964); Orthopedic Equip. Co. v. Eustler, 276 F.2d 455 (4th Cir. 1960); Thompson v. Allen, 240 F.2d 266 (10th Cir. 1956); Bord v. United States, 133 F.2d 318 (D.C. Cir., 1942); Weathers v. United States, 126 F.2d 118 (5th Cir. 1942); State v. Doan, 225 Minn. 196, 30 N.W.2d 539 (1947).

This approach is open to the objection that it perceives jury deliberation as a one-dimensional continuum: at one extreme, each juror abides by his "conscientious convictions" and ignores the majority; at the other, "conscientious convictions" are "surrendered" under pressure from the majority. The job of the judge framing supplementary instructions is to make sure the jury moves in neither direction along the continuum; he must neither add to the strength of the majority, nor intensify the convictions of the minority. But if the judge's instruction balances exhortations to conscience and to unity equally, it is hard to see why any instruction at all should be given. For the most efficient way to make nothing happen is to do nothing.
I. The Persuasion of Jurors

"The distinctive strength and safeguard of the jury system," writes Professor Kalven of the Chicago Jury Project, "is that the jury operates as a group."27 The jury would be a very different institution were jurors placed in isolation booths to rely alone on whatever "conscientious convictions" they acquire at the trial. Instead, jurors of different convictions, different values, and different perceptions of the facts must sit down together in the same room and attempt to reach consensus on a verdict. Except in the rare cases where all jurors agree at the outset of the deliberations, this will mean that out of the variety of points of view with which the jurors start, one must win. Hence analysis of jury deliberations is, by and large, the study of the means by which jurors are persuaded.

In the traditional view, persuasion of jurors is seen primarily as a process of rational argument, not very different from a controversy in the learned journals.28 One side advances a proposition; the other side either challenges the underlying premise, or accepts the premise but denies that the proposition follows. The content of arguments is all-important: a position is not abandoned because it is attacked (even if attacked by many people); it is abandoned only if shown to be illogical or based on a false premise. From the point of view of the participants, perhaps, the traditional view of discussion is correct. Few men will deliberately espouse a point of view they consider irrational, and most will attribute changes of mind to the processes of rational persuasion. But from the

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28. You are to be governed, therefore, solely by the evidence introduced in this trial, and the law as given you by the Court. The law will not permit jurors to be governed by mere sentiment, conjecture, sympathy, passion or prejudice, public opinion, or public feeling. Both the public and defendants have a right to demand, and they do so demand and expect, that you will carefully and dispassionately weigh and consider the evidence and the law of the case.

... It is the duty of each of you to consider and weigh all the evidence in the case, and from such evidence to determine, if you can, the question of guilt or innocence of the defendants or any of them. When you have so determined that question, you should not be influenced in giving your verdict by the mere fact that any number or all of your fellow jurors may have reached a different conclusion.

point of view of an outsider there is good reason to discard the traditional view of the jury's deliberations.\textsuperscript{29}

In small groups generally, certain patterns of influence, based on the size of opposing factions, the degree of participation in discussions, and the personal characteristics of different group members, create pressures to uniformity regardless of the content of the particular arguments advanced.\textsuperscript{28} Discussion in a jury room should be no more immune to these non-rational influences than discussion in a board room, a classroom, or a sociology lab.\textsuperscript{31} Evidence available from direct studies of juries in operation tends to confirm that the content of argument is not decisive. First, if content were the important factor in persuasion, we should expect that as two factions near agreement, their arguments would come closer together and increase in rationality. Yet the fact is that as deliberations progress, the two sides take more and more radical positions, their arguments increasing in violence and irrationality.\textsuperscript{32} Second, a

\textsuperscript{29} . . . [W]e suspect that the jurors' talk may often be not very revealing. . . . The real cause of a juror's decision will be in many instances a factor he himself is only dimly aware of and perhaps unable to articulate.

. . . .

But even when the juror is aware of his motives, he may not wish to disclose them. He may choose to argue his point more in terms of proper legal considerations than in terms of the extra-legal ones he privately finds persuasive. Finally, we know that some jurors either cannot or prefer not to talk much and rather limit their participation to voting. We are thus disposed to assert that the analysis of jury deliberations would add little to a theory of why the jury disagrees with the judge.


\textsuperscript{31} Kalven, The Jury, the Law and the Personal Injury Damage Award, 19 Ohio St. L.J. 158, 176 (1958).\textsuperscript{32} C. Hawkins, Interaction \& Coalition Realignments in Consensus-Seeking Groups: A Study of Experimental Jury Deliberations 132, August 17, 1960 (unpublished doctoral thesis in sociology on file in the University of Chicago Library). This may be related to the finding, made by many students of small-group interaction, that as discussion proceeds in a consensus-seeking group, communication tends to be directed primarily to the most extreme deviants; moderate deviants are ignored, relatively speaking, while the conformers concentrate their fire on the radicals. See Festinger, Gerard, \textit{et al.}, supra note 30, at 336-40; Festinger, A Theory of Social Comparison, supra note 30, at 165; Festinger \& Thibaut, Interpersonal Communication in Small Groups, 46 J. Abnormal \& Soc. Psych. 92 (1957).
sizable minority of jurors assent to verdicts with which they disagree—conduct unexpected were their convictions and vote the result solely of rational argument.

Yet if it is wrong to regard the jury as a debating society, it is equally wrong to treat it as on all fours with the small groups of sociological theory. The jury is a legal institution, and the rules under which it operates foster and protect only a few of the influence mechanisms common in small groups generally. Others are banned, either by express judicial pronouncement or by subsidiary devices that radically restrict their scope and effectiveness. The result is different both from the ra-

33. Post-deliberation interviews show that 10 per cent of jurors are willing to admit that they were "pressured" into their verdict, i.e., that they were unconvinced when the vote was delivered. James, Status and Competence of Jurors, 64 Am. J. Sociology 563, 567-69 (1959); C. Hawkins, supra note 32, at 71, 102. Such figures no doubt underestimate the real amount of pressure, since jurors will be unwilling to confess conduct that is considered improper, and since many jurors may not appreciate how their own perceptions shift as a result of others' opinions. See H. Kalven & H. Zeisel, supra note 29, and Kalven, supra note 31. Only 60 per cent of jurors in panels that ultimately reach a decision believe in that verdict at the outset of deliberations. James, supra, at 569.


34. An additional striking example of irrational result is the jury's treatment of defendant's insurance coverage. Jurors aware of defendant's insurance but instructed to disregard it discuss it much less frequently, and fewer of their mentions of insurance carry an implication of increased damages, than is the case with juries (also aware of the coverage) that receive no instructions on the subject. If content were decisive, we should expect the lower frequency of discussion of insurance to be reflected in a lower level of awards. But in fact just the opposite is true—verdicts of the non-discussing juries are some 12 per cent higher than those of the discussing ones. Kalven, A Report on the Jury Project of the University of Chicago Law School, 24 Ins. Couns. J. 366, 378 (1957).

35. The problem of defining just what the legal rules permit is complicated by the old rule, dating from Vaise v. Delaval, 1 T.R. 11, 99 Eng. Rep. 944 (K.B. 1789), that the affidavits of jurors are incompetent to impeach their own verdicts. Since evidence from other sources is almost never available, the Vaise rule, strictly applied, means that no verdict may ever be upset, whatever the asserted misconduct. See generally Comment, Impeachment of Jury Verdicts, 25 U. Chi. L. Rev. 360 (1958); 8 J. Wigmore, Evidence §§ 2345, 2352-53 (3d ed. 1940); Crawford v. State, 10 Tenn. (2 Yerg) 60 (1821) (Vaise a development of common law posterior to the Revolution; not part of American law).

A few states (Texas is the leading example, see Texas Code Civ. Proc. Ann. art. 753 (1950)) have abolished the Vaise rule entirely. Their courts are therefore at liberty to decide openly the underlying question—whether the misconduct shown is serious enough to justify reversal. Other states, and the federal courts, have achieved much the same result, while pretending to follow Vaise. These jurisdictions adopt the so-called Iowa rule—actually best stated in the Kansas case of Perry v. Bailey, 12 Kan. 539 (1874)—to the effect that jurors' affidavits are inadmissible to impeach matters that "inhere in the verdict," but not as to other matters. The effect of such a rule is that decisions as to whether misconduct justifies reversal are couched in terms of the admissibility of evidence. See Mattor v. United States, 146 U.S. 140 (1893); McDonald v. Pless, 238 U.S. 264 (1915); Carson v. Brauer, 234 Ore. 333, 382 P.2d 79 (1963). Some states, finally, stick to the unmodified Vaise rule. E.g., Kollett v. Gundiff, 10 Cal. 2d 768, 329 P.2d 897 (1958).

Apart from these distinctions, a group of (mostly) code states have followed the lead of
tional discussion model of judicial myth and from the unfettered interaction of sociological theory: an institution comprehensible only in terms of the way legal rules foster, limit, or forbid the various modes of persuasion.

A. Coalition Pressure

The first of these modes of persuasion is what we shall call "coalition pressure." Participants in a discussion are often influenced to change their opinion simply by the knowledge that an overwhelming majority disagrees with them. Consistent disapproval by the majority can shake a small minority's faith even in judgments it believes to be right. Such pressures are most effective against a single dissenter and fall off rapidly in efficacy as the size of the dissenting coalition increases. A single ally gives most dissenters the courage to voice their true convictions. Hence in the typical divided jury situation, where there is usually more than one dissenter, coalition pressure alone will not suffice to bring about agreement.

Legal rules make it possible for coalition pressure to work effectively. The mechanism requires, above all else, that each member of the jury always knows how the group is divided. The most effective way of spreading such knowledge is an open vote, conducted by a show of hands or other method which reveals how each juror stands. The impact of such a poll on dissenting jurors is sometimes so great that they


In the text that follows, an attempt has been made to draw conclusions as to permissible jury conduct only from those jurisdictions that do not apply the strict "false" rule. Only in these states do the judges have sufficient freedom to overturn a verdict so that one can say that a failure to overturn implies approval of the practice involved.


37. The power of this "coalition" influence was demonstrated in a famous series of experiments. Subjects in a group observed lines on white cards, and were asked to say which of four lines matched in length. All the members of each group but one were coached by the experimenters to give the same answer, which was deliberately wrong. The lone unsuspecting member of the group, at first barely able to believe his ears, in most cases succumbed to the coalition pressure of the group by giving the same answer as the others. Asch, Opinions and Group Pressure, in Small Groups 318 (rev. ed. A. Hare, E. Borgatta & R. Bales 1966).

38. In the Asch experiment, supra note 37, the addition of a second "honest" man to the group caused the rate of group-induced errors to fall off 75 per cent. Id. 322.
change their votes immediately after the balloting, making it unmistakably clear that the adverse split was the direct cause of their conversion. Cases of vote-switching after a ballot are usually appealed on the grounds that the verdict was not truly unanimous, since dissenting jurors could not, in any meaningful sense, have so quickly altered their opinions. Yet such appeals are ordinarily dismissed. A verdict is impeachable only if there is evidence not simply of a change in votes, but of an agreement, before the balloting, to abide by the result. 39 The effect of this doctrine is to permit conversions resulting from the size of the majority—in other words, to give the coalition pressure mechanism full opportunity to function.

B. Verbal Pressure

Unlike coalition pressure, verbal pressure depends not on the size of the opposing coalitions, but on the willingness and ability of each to express its views. It has long been recognized that influence in a discussion tends to be proportional to participation: over the long run those who talk the most convince the most. 40 Verbal pressure is peculiarly important to the jury because of the tendency of the two factions of a divided jury to do an equal share of the talking, regardless of faction size. 41 A coalition of eight members


The rule, as was pointed out by the courts in Olins and Ewing, supra, is closely analogous to that governing quotient verdicts. These, too, are held bad only if they are the result of a previous agreement to abide by the result of the computation. E. L. Farmer Co. v. Hooks, 239 F.2d 547 (10th Cir. 1956), cert. denied, 353 U.S. 911 (1957); Consolidated Ice Machine Co. v. Trenton Hygeian Ice Co., 57 F. 899 (C.C.N.J. 1893); Will v. Southern Pacific Co., 18 Cal. 2d 468, 116 P.2d 44 (1941); Jurgens v. Davenport, R.I. & N. Ry., 249 Iowa 711, 83 N.W.2d 797 (1958); Hamilton v. Atchison T. & S.F. Ry., 95 Kan. 353, 148 P. 648 (1915); Westbrook v. Hutchinson, 193 S.C. 101, 10 S.E.2d 145 (1940). But cf. Southern Elec. Generating Co. v. Howard, 275 Ala. 498, 156 So. 2d 359 (1963) (agreement inferred from use of quotient method).


In an experiment reported by Strodbeck, supra, at 592, groups of three members were required to recommend a joint solution to a particular problem. The experimenters found that the best prediction of the result in each group was obtained by weighting the pre-deliberation opinion of each member of the group by the amount of time he had spoken.

talks only very slightly more than the opposing four-man coalition. The theory of verbal pressure would indicate, and experimental conclusions confirm, that when coalitions of differing size do an equal share of the talking, the balance of influence between them tends to be equal. In general neither one side nor the other will make converts.\textsuperscript{42}

But if such a balance of interaction is to be maintained, it is obvious that, man for man, the members of a small coalition must talk more than members of a larger one. Members of a four-man coalition must talk twice as much as members of an eight-man one. Even for a four-man coalition so much talking tends to set up strains on the coalition members, and the strain is greater as coalition size decreases. Argument is hard work: those who talk much tire and fall silent if allies are not available to spell them.\textsuperscript{43} Sooner or later a small coalition will probably be unable to keep up with the larger one. The result is usually the conversion of one or more members of the smaller coalition.\textsuperscript{44}

As in the case of coalition pressure, the legal rules foster verbal pressure. For instance, jurors are given wide freedom to browbeat one another. Any kind of verbal harassment—shouting, angry words, interruption of other speakers—is allowed.\textsuperscript{45} Thus in United States \textit{v. Grieco},\textsuperscript{46} a minority juror complained that loud talking and browbeating by a majority juror had so intimidated her that she had been afraid to open her mouth during the deliberations. The Second Circuit thought these facts were “very far from the kind of showing that must be made” to overturn a verdict.\textsuperscript{47} The Court, like other courts that

\begin{footnotes}
\item 42. \textit{Id.}
\item 43. There is some evidence that individuals have a characteristic upper-bound participation rate: they will talk so much and no more. Hence ability to influence members of a group will turn on the relationship among the characteristic upper-bound participation rates of the members. See Borgatta \& Bales, \textit{Interaction of Individuals in Reconstituted Groups}, 16 \textit{Sociometry} 302 (1953), reprinted in \textit{Small Groups} 370 (rev. ed. P. Hare, E. Borgatta \& R. Bales 1966). When the group is split into factions, of course, the combined characteristic participation rates of the minority may not be sufficient to occupy half the discussion time.
\item 44. It hardly matters whether the immediate cause of this conversion is the strain of a deliberate attempt to maintain the balance of interaction, C. Hawkins, \textit{supra} note 32, at 131, or whether a slackening of the ability of one side to participate in the discussion increases the share of the other side in the argument, and results in greater influence for the larger group. Sources cited note 30 \textit{supra}. The outcome is the same under either theory. Whether the effect be direct or indirect, the cause of conversions is the inability of the smaller group to talk as hard or as long as the larger one.
\item 45. “The law does not undertake to limit or control the arguments by which one juror may convince the mind of another.” State \textit{v. Wakely}, 43 Mont. 427, 117 P. 95 (1911); State \textit{v. Corner}, 58 S.D. 579, 237 N.W. 912 (1931).
\item 46. 261 F.2d 414 (2d Cir. 1958).
\item 47. \textit{Id.} at 415. “It is not possible to determine mental processes of jurors by the strict tests available in an experiment in physics; we have to deal with human beings, whose opinions are inevitably to some extent subject to emotional controls that are beyond any accessible scrutiny.” 261 F.2d at 415. The court did suggest, however, that a verdict would be upset for a threat of violence by one juror against another. \textit{Id.}
\end{footnotes}
have considered the problem, was in effect recognizing that the brow-beating complained of was merely the normal operation of the verbal pressure mechanism. To restrict jurors to gentlemanly talk about the case and to prohibit them from invoking the heat and passion of argument or saying harsh things about one another is to narrow the opportunities for the creation of the strains and the expenditure of nervous energy that break down the minority's willingness to hold to its position. Only through this process does the majority achieve a greater share of participation and begin to influence, persuade, and convert other jurors.

The rules against separation of the jury also foster the verbal pressure mechanism. If the jury is permitted to separate at frequent intervals, there is a lessening of the strains which would be set up by the necessity of continuing to talk. The verbal pressure mechanism must begin over again from scratch whenever the minority is permitted to rest, become refreshed, and marshal its strength.

Other cases reach the same result but rely on the theory that, while the irregularities are serious enough to merit reversal, they may not be shown by jurors' affidavits. E.g., Commonwealth v. Patrick, 416 Pa. 437, 206 A.2d 295 (1965); Smith v. Rodick, 286 S.W.2d 73 (Mo. App. 1956); Brinsfield v. Haveth, 110 Md. 520, 73 A. 289 (1909). Cf. Kollert v. Cundiff, 50 Cal. 2d 768, 329 P.2d 897 (1958); Johnson v. Hunter, 144 F.2d 565 (10th Cir. 1944).

50. It is at least possible that the rules permitting frequent balloting, though essential to the coalition pressure mechanism, see p. 111 supra, may also be employed by a short-handed minority faction to gain a much-needed rest. On the other hand, open balloting does help the majority by telling the members on the same side just who their allies are, thus permitting them to spell one another more efficiently.
C. Expertise

A man who is thought to have peculiar knowledge in a given area will have more influence than one who is thought to be inexperienced. Such influence appears to be independent both of the content of the "expert's" statements and of the variations in influence resulting from his degree of participation in the discussion. The effect of a given statement varies in relation to the listener's perception of the speaker's expertise.61

Although this type of influence is very important to most problem-solving groups, the law attempts to minimize its effects in the jury room. Most conspicuously, those who have some clear claim of knowledge in an area thought to be related to the trial are not chosen for service as jurors.62 The familiar exclusion of lawyers exemplifies this attitude.63 So does the refusal to have medically trained people on most


52. "In a lawsuit involving a bridge no bridgebuilder or anyone who knows anything about bridges is allowed to serve, and in a legal contest over rayon of course no one who knows anything about rayon would be accepted as a juror by one of the parties." A. Osborn, The Mind of the Juror 18 (1957).

These exclusions may come about in three ways. A few classes of potential jurors are disqualified by statute from jury service—as is the case, for example, with lawyers in three states. N.D. Cent. Code § 27.0902 (1960); Okla. Stat. Ann. tit. 38, § 28 (1951); S.D. Code (Supp. 1960) § 32.1001. More frequently, large classes of jurors are granted "exemptions": in theory this means they may serve but need not; in practice that they because struck from the jury list. See, e.g., Calif. Code Civ. P. § 205 (West 1954); D.C. Code § 11-2302 (1967); Conn. Gen. Stat. Ann. § 51-219 (1958); 8a Mass. Gen. Laws Ann. c. 234 § 4 (1932); N.Y. Jud. Law § 593-95 (1968); Pa. Stat. Tit. 17, § 1092 (Purdon 1930). For a description of how effectively the exemption system works as a total disqualification, see United States v. Dennis, 183 F.2d 201 (2d Cir. 1951) (L. Hand, J.). See generally A. Vanderbilt, Minimum Standards of Judicial Administration 162-81 (1949); ABA, Project on Minimum Standards for Criminal Justice, Standards Relating to Trial by Jury 46-67 (Tent. Draft, 1968). A third group of potential jurors are eliminated by challenge, either "challenge for cause" by the judge, or "peremptory challenge" by one or the other side.


53. Which is sometimes carried to ridiculous lengths. Thus the attorney in San Nicolas v. Government of Guam, 325 F.2d 781 (9th Cir. 1963) (described by the court as an "incredible appeal"), contended that the fact that the jury had met in the library required reversal.

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juries, despite the importance of injuries in most civil and many criminal cases. Similarly, this is at least partially the basis of the refusal to allow those with personal knowledge of the material facts to serve on a jury. None of these prohibitions makes sense solely as pro-


55. In 1929-32, negligence cases accounted for 81 per cent of all civil jury trials in New Haven County, Clark & Sherman, Jury Trial in Civil Cases—A Study in Judicial Administration, 43 Yale L.J. 867, 870 (1954). There is no reason to suppose this ratio has decreased since then.

56. In some cases where challenges are exercised because the lawyer (or the court) believes the juror will be biased, the situation may be easier to explain in terms of expertise. Thus no sensible attorney would permit an honest bank official to sit on a jury trying another bank official for embezzlement: the prosecutor would fear leniency to a co-worker, and the defense zeal to uphold the honor of banks. But if the excluded juror's "bias" thus runs in both directions, one is justified in concluding that it is a case of no bias at all: the institutional objection to the bank official is not that he will favor one side over the other, but that—whichever side he chooses—he will have excessive, "expert," influence over the other jurors.

57. See Bridgman v. Baxter County, 202 Ark. 15, 17, 148 S.W.2d 673 (1941); Cook v. Kansas City, 338 Mo. 296, 214 S.W.2d 430, 433 (1948); McFall v. St. Louis & S.F.R.R., 185 S.W. 1157, 1158 (Mo. App. 1916) (juror expert on essential question in case); Wilson v. State, 87 Neb. 638, 644-45, 128 N.W. 38, 40-41 (1910); Rust v. Reid, 124 Va. 1, 22, 97
tection of the jury's role as factfinder—indeed, the critics of the jury system recommend more, not fewer, experts. They can be explained by a desire to exclude the possibility of "expert" influence in the jury room.

Fear of expert influence may also partially underlie the rule against the jury's considering matters not in evidence. For instance, when a juror told his fellows of his reading on a scientific matter of importance to the case, judgment was reversed without even an allegation that the juror's research was erroneous. This result cannot depend simply on preventing surprise to the parties or assuring cross-examination, since judges are at liberty to take judicial notice of well-established scientific facts. But the juror who does outside research impermissibly acquires an influence out of proportion to that which coalition and verbal pressure alone would give him.

D. Other Influences

Influence as a result of force or the threat of force is, of course, clearly excluded from jury deliberations. Even courts that observe policies against inquiring into jury deliberations are willing to overturn verdicts upon a showing of force.

Other types of influence found in some small groups are likely to be unimportant in the jury. In a normal situation, friendship is a factor in persuasion analogous to expertise: other things being equal, people

S.E. 324, 330 (1918); Alexson v. Pierce County, 186 Wash. 188, 192, 57 P.2d 318, 320 (1936).

"[T]he purpose of the law is to get persons who can and will try the case fairly and base their verdict on the law and the evidence. Of course, if their opinion is based on facts within their knowledge, or evidence that they have heard, they would not be competent jurors. But the fact that they have formed or expressed an opinion does not disqualify them from serving on the jury if the opinion is based on rumor." Ham v. State, 179 Ark. 20, 26, 13 S.W.2d 805 (1922); cf. Jester v. State, 100 Tex. Crim. 409, 273 S.W. 570, 571 (1925). A more perfect statement of the proposition that knowledge is forbidden would be difficult to imagine.

58. "Many persons seem to believe that they have a constitutional right to an ignorant jury. . . ." United States v. Allied Stevedoring Corp., 258 F.2d 104, 107 (2d Cir.), (Clark, C.J.), cert. denied, 353 U.S. 989 (1958). See also Sunderland, Verdicts, General and Special, 29 Yale L.J. 223 (1920); J. Frank, Law & the Modern Mind ch. XVI (1930); Dubois, Desirability of Blue Ribbon Juries, 13 Hastings L.J. 479 (1962). Some have advocated the testing of jurors, psychological and otherwise, or the use of restrictive educational qualifications. Redmount, Psychological Tests for Selecting Jurors, 5 Kan. L. Rev. 391 (1957); Note, 65 Yale L.J. 591 (1956); Note, 1960 Wis. L. Rev. 690.


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will be more easily persuaded by speakers they like. Since juries are chosen broadly and few jurors are previously acquainted, the influence of friendship tends to be small. Similarly, except for the foreman, whose influence is mainly procedural, juries lack any formal structure and hence are likely to be unaffected by the formal leadership influence that occurs in other groups.

II. Pressure Mechanisms and the Optimal Decision Rule

The preceding discussion shows that in jury deliberations two patterns of influence—coalition pressure and verbal pressure—are encouraged, while other types of influence are discouraged or unimportant. Since the effectiveness of both these mechanisms depends on the size of the majority coalition (with certain exceptions to be discussed later), there must be a tipping point that divides winning and losing coalition sizes. That is, a majority greater than a certain critical size will usually be able to overcome the minority's resistance, while one less than the critical size will normally fail to do so. The precise location of the tipping point, of course, is hard to specify, but one researcher suggests that eight- or nine-man coalitions may well be the critical size.

Legal rules prohibiting caucusing by jurors appear to recognize that the existence of a tipping point is of considerable importance to the proper functioning of the jury system. Under these rules individual jurors are not permitted to talk over the case or the evidence among themselves during or after the trial. All deliberations must


63. There is, however, some evidence that new friendships are made and influence juror behavior to some extent. The effect depends particularly on the seating pattern at the jury table. See Strodtbeck & Hook, The Social Dimensions of a Twelve Man Jury Table, 24 Sociometry 397 (1961).


66. C. Hawkins, supra note 32, at 128. It is at this point that the ability of the minority coalition to originate an equal share of the communication in the jury room begins to fall off sharply.

occur in the presence, and with the participation, of all twelve jurors. Such rules make little sense in terms of aiding the jurors to arrive at the truth, since discussion in groups of two or three may be as enlightening as in the full jury. Nor do they make sense in terms of a desire to restrict methods of persuasion to coalition and verbal pressure; for both techniques can be applied as easily in a caucus as in the full jury. The crucial difference between deliberation in caucuses and deliberation in the full jury is the unpredictable variation in the critical size that deliberation in caucuses would produce. If jurors meet first in caucuses and then re-unite, some of them will have been converted in the caucuses, where the proportions of jurors favoring different outcomes will almost certainly be different than in the full jury. A juror left alone in a caucus may be persuaded, unaware that he has allies in other caucuses, whose support might be enough to confirm his own views, were the full jury deliberating.69

The existence of the tipping point means that the unanimity rule

CIV. P. 47(k); WASH. REV. CODE ANN. § 4.44.280 (1962); WYO. STAT. ANN. §§ 1-127, 7-237 (1957).

The rule in federal courts is not so clear. It is not reversible error for a judge to omit to give an admonition against the jurors discussing the case with each other during separations, United States v. Viale, 312 F.2d 595, 602 (2d Cir. 1963); Myres v. United States, 174 F.2d 329, 334 (5th Cir. 1949), although the admonition has been termed "vital," Kleven v. United States, 240 F.2d 270, 274 (8th Cir. 1957). In Winebrenner v. United States, 147 F.2d 322 (8th Cir. 1945), the trial court was reversed for instructing the jury that discussion among themselves was permissible; Judge Gardner explaining the reason of the rule as follows:

This admonition is subject to the further criticism that it permitted groups or coteries within the jury, including the alternate juror, to discuss the case during the many weeks the Government was introducing evidence and to form opinions which it was incumbent upon the defendants to overcome by evidence, whereas defendants were entitled to have the case considered not by divisions or coteries of jurors, which might include the alternate juror, but by the entire jury. Courts have generally held that after the case has finally been submitted and the jury placed in custody of an officer to be kept together, that it is error to permit them to separate. Defendants were entitled to have their case considered by all the jurors as a jury. Here, without instructions as to the law, without hearing all the testimony, and without hearing argument of counsel, they were authorized to divide themselves into separate groups and distinct deliberative bodies. So general is the rule that jurors should not discuss a case prior to its submission to them, that it has been enacted into statute in practically all the states of the Union. 147 F.2d at 329. But cf. Cook v. Atlantic Coast Line Ry., 196 S.C. 230, 13 S.E.2d 1 (1941).

68. Most of the statutes cited in note 67 supra apply equally to separations after submission. When they do not expressly do so—as in Missouri, Mo. STAT. ANN. § 540.240 (1963), Nevada, Nev. Rev. Stat. § 175.320 (1963), and North Dakota, N.D. CENT. CODE § 29-22-02 (1960), for example, the reason is that those states entirely forbid separation after the submission of a criminal case. Hence the need for an admonition never arises.

In the federal courts, separation after submission is usually accompanied by an admonition not to discuss the case. Byrne v. Matrzak, 254 F.2d 525 (3d Cir. 1958); Cleary v. Indiana Beach, Inc., 275 F.2d 543 (7th Cir. 1960).

69. A good example of the effect of caucusing during deliberation is the situation reported in Monroe v. State, 5 Ga. 85 (1848). Two jurors went into an adjoining room, one of whom favored conviction, the other acquittal. When they returned, the latter agreed to change his vote to guilty. The appellate court reversed an ensuing conviction.

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as usually stated is a sham. While receiving the apparent concurrence of all jurors, most verdicts will in fact represent the convictions only of a majority of the critical size or greater, transmuted into "unanimity" by the operation of the dual pressure mechanisms. Yet this need not lead us to question the legitimacy of jury verdicts, providing we accept the contention, "made by almost every adherent of the jury system," that the jury's function is to reflect the sentiments of the community. In fact, under this assumption it can be shown that the most efficient jury decision rule is that which permits rule by a majority of the critical size—an eight- or nine-man coalition—to determine the verdict. The potential social costs of jury trials—losses from miscarriages of justice, from failures to resolve the controversy, and from wasted trials—will be less under such a decision rule than under the rule of either a simple (seven-man) majority or a majority of size ten or greater.

The calculation proceeds on the following assumptions:

(1) The correctness of a jury's verdict is determined by its correspon-

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71. Advocates and critics of the jury alike have agreed that the injection of popular sentiments into the legal system is the principal characteristic of the jury. Holmes, said Holmes, "will introduce into their verdict a certain amount—a very large amount, so far as I have observed—of popular prejudice, and thus keep the administration of the law in accord with the wishes and feelings of the community." Holmes, Law in Science and Science in Law, 12 Harv. L. Rev. 445, 460 (1899). See also Pound, Law in Books and Law in Action, 44 Am. L. Rev. 12, 18-19 (1910); Wigmore, A Program for the Trial of Jury Trial, 12 J. Am. Jud. Soc'y 166, 170-71 (1929); Wyzanski, A Trial Judge's Freedom and Responsibility, 65 Harv. L. Rev. 1281, 1286 (1952); J. Frank, Courts on Trial 129-30 (1948).

Early theory held that "[t]he verdict of the jurors is not just the verdict of twelve men; it is the verdict of a jury, a 'country,' a neighborhood, a community." 2 F. Pollock & F. Maitland, History of English Law 623 (1905). Jurors had the express power to decide not only the facts of a case but the law that should govern it, and the judge's instructions were advisory only. Such was the situation in the United States through most of the nineteenth century. See Sparf & Hansen v. United States, 156 U.S. 51 (1895); Howe, Juries as Judges of Criminal Law, 52 Harv. L. Rev. 582 (1939); Note, The Changing Role of the Jury in the Nineteenth Century, 74 Yale L.J. 170 (1964). The jury's ancient right to make the law is still occasionally recognized today. Karcesky v. Laria, 382 Pa. 227, 114 A.2d 150 (1955); Note, Jury Compromise in Pennsylvania Negligence Actions, 109 U. Pa. L. Rev. 732 (1961).

Even if the jury's right to modify the law is no longer untrammeled, the fact that an issue in a case is left to the jury normally means that it is the judgment of the community that is sought. Thus in first amendment cases, where the applicable rule of law is counter-majoritarian, the jury has very little scope for decision. Even where the test to be applied is closely similar, the desirability of a community judgment will determine whether the question is one for the judge or the jury: the "reasonableness" of conduct in tort cases invariably goes to the jury, in commercial cases not so often, and in malicious prosecution hardly ever. See Weiner, The Civil Jury Trial and the Law-Fact Distinction, 54 Calif. L. Rev. 1867 (1966).

72. "Decision rule" is a shorthand phrase for the rule specifying the size of major coalition necessary for its opinion to prevail. For example, if a verdict could be rendered when nine of the twelve jurors voted for it, the jury would be operating under the decision rule of nine.
ence to the sentiments of the relevant community. Assume, for example, that the trial is flashed by television into the homes of all members of the community, who then mark down their personal verdict on a secret ballot. If more than half the community favors Result A, a jury verdict of A is "correct."

(2) Jurors are chosen randomly from the community. This means that if a proportion \( p \) of the community favors Result A, with the remainder \((1 - p)\) favoring Result B, the probability of an individual juror's favoring A will also be \( p \). The value of \( p \) is assumed greater than 0.50.

(3) The jury reaches a verdict by a single ballot, without deliberation. If \( k \) or more jurors favor a given result, that is the jury's verdict; if \( k - 1 \) or fewer favor either result, then the jury hangs. The value of \( k \) is assumed to be seven or greater, so that the six possible values of \( k \) (7, 8, 9, 10, 11, 12) yield the six possible jury decision rules.

73. Even apart from the dispute, note 71 supra, as to the jury's proper function as against the judge, it is difficult to see what other test could be used to determine the correctness of the jury's verdict. Any attempt to compare the jury's verdict with what "actually" happened (even if we assume a difference between what "actually" happened and what most people believe happened) will involve not simply whether the jury's verdict was right but whether rules of evidence are proper, whether the case was well-tried, whether the laws against perjury are strict enough, etc.

74. It would be possible to require more than a majority to agree before action could be taken. Thus one might set the "decision point" at, say, 60 per cent of the community—if 60 per cent favored Result A, a verdict of A would be proper; if 40 per cent or less favor A, then a verdict of B is proper; and if between 40 and 60 per cent favor A, then no action either way will be taken—a sort of denial of certiorari at the trial level.

This assumption, however, has little point except to complicate the mathematics further on. It is difficult to see any reason for requiring a majority of greater than half, except that we feel that the cost of an erroneous verdict is large in proportion to the cost of a trial. This can be taken into account by varying the cost parameter for an erroneous verdict directly, see p. 123 infra, without introducing the additional unknown parameter of the "decision point."

In any event, the use of a decision point in the only range that is practically likely—55 or 60 per cent—does not significantly affect the results of the calculations for most cost mixes.

75. The theory of the jury system has always maintained that jurors were to be chosen randomly from the community—or at least from that proportion of it qualified (by the franchise or otherwise) to take part in important decisions. The goal has more often been achieved in theory than in practice. Lindquist, An Analysis of Juror Selection Procedure in the United States District Courts, 41 Temp. L.Q. 32 (1967); Mills, A Statistical Study of the Occupations of Jurors in a United States District Court, 22 Md. L. Rev. 205 (1962); Holbrook, A Survey of Metropolitan Trial Courts, Los Angeles Area, in C. JOINER, CIVIL JUSTICE AND THE JURY 195-200 (1962). The more blatant discriminations are, however, prohibited. Glasser v. United States, 315 U.S. 60 (1942); Ballard v. United States, 329 U.S. 187 (1946); Thiel v. Southern Pacific Co., 328 U.S. 217 (1946); Cf. Swain v. Alabama, 380 U.S. 202 (1965), See generally Finkelstein, The Application of Statistical Decision Theory to the Jury Discrimination Cases, 80 Harv. L. Rev. 338 (1966).

For our purposes, of course, it is not necessary that the community from which the jury is selected be equivalent to the "physical" community—any more than it is necessary for the voting population to be equivalent to the actual population. All that is required is that jurors be selected randomly from the body of people who are placed on jury lists; for our purposes, this latter group is the relevant "community" to whom decisions are entrusted.
(4) There is some upper limit on the number of possible trials. The equations and figures below are drawn up on the assumption that there will be only two trials of a given case: if the first jury hangs, there will be a second trial, but if that jury hangs, then the plaintiff/prosecutor will give up, or the case will be settled. This is the invariable custom in England and one suspects that in the United States there are few cases indeed that give a third jury the chance to hang.

The mathematics that follows is not complicated—although the arithmetic is laborious—and may be summarized briefly. For each of the various divisions of opinion in the community and for each of the six

76. The only other likely possibility is an upper limit of three trials. On this assumption, expressions (1)-(4) infra, become:

\begin{align*}
(1A) \quad P(\text{result } A) &= \sum_{j=1}^{3} P(A)[1 - P(A) - P(B)]^{j-1} \\
(2A) \quad P(\text{result } B) &= \sum_{j=1}^{3} P(B)[1 - P(A) - P(B)]^{j-1} \\
(3A) \quad P(\text{no result}) &= 1 - P(\text{result } A) - P(\text{result } B) \\
(4A) \quad E[T/p] &= \sum_{m=1}^{3} m P(\text{m trials}),
\end{align*}

where $P(\text{m trials}) = [1 - P(A) - P(B)]^{-m-1} [P(A) + P(B)]$

$$m \leq 2$$

$$m = 3$$

and instead of Table II, infra p. 126, we have the following:

<table>
<thead>
<tr>
<th>TABLE A</th>
<th>EXPECTED OVERALL COSTS FOR VARIATION IN $C_R/C_T$ (THREE TRIALS)</th>
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<td>32</td>
<td>.1163</td>
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</table>

The table means that the rule of eight or nine will be most efficient for a somewhat higher range of $C_R$'s than if a two-trial limit is adopted. This need create no difficulties, since it may be assumed that those cases pressed on to a third trial will be those whose intrinsic importance is great, and where the ratio $C_R/C_T$ will tend to be large. Hence a rule of eight or nine will continue to be most efficient.
jury decision rules, one can compute the likelihood of the five possible outcomes: at the first trial the jury may arrive at either Result A or Result B; if it hangs, a second jury may come to either result or it may hang, leaving the controversy unresolved. Costs may be assigned to each outcome so as to reflect the expenses of new trials, of erroneous verdicts, and of failing to decide the case. Given any division of opinion in the community, we can derive an "expected cost" for each jury decision rule—adding together the cost of each outcome multiplied by its likelihood. The most efficient decision rule will be the one whose expected cost is lower, on the average, for all of the possible divisions of community opinion.

In algebraic terms, we have the following.

If proportion \( p \) of the community favors Result A, then the probability of a single juror's favoring A is also \( p \), and the probability that exactly \( m \) jurors favor A will be:

\[
\frac{12!}{m!(12-m)!} p^m (1-p)^{12-m}
\]

If the jury uses decision rule \( k \), such that a verdict of X will be returned if and only if \( k \) or more jurors favor X, then the probability of verdict A is the probability that \( k \) or more jurors favor A. Hence,

\[
P(A) = \sum_{m=k}^{12} \frac{12!}{m!(12-m)!} p^m (1-p)^{12-m}
\]

Conversely, the probability of verdict B is the probability that \( 12 - k \) or fewer jurors favor verdict A. Hence,

\[
P(B) = \sum_{m=0}^{12-k} \frac{12!}{m!(12-m)!} p^m (1-p)^{12-m}
\]

The probability of a hung jury will be:

\[
P(H) = 1 - P(A) - P(B)
\]

These are the probabilities of the outcome at any single trial. Hence they must be modified if two trials are allowed. The probability of verdict A after two trials—\( P(\text{result A}) \)—will be the sum of the probability that A is returned on the first trial plus the probability of a hang on the first trial followed by a verdict of A on the second trial. Hence,

\[
(1) \quad P(\text{result A}) = P(A) + P(A) [1 - P(A) - P(B)]
\]

Similarly:
On Instructing Deadlocked Juries

(2) \[ P(\text{result B}) = P(B) + P(B) \left[ 1 - P(A) - P(B) \right] \]

and, for the probability of no verdict after two trials:

(3) \[ P(\text{no result}) = 1 - P(\text{result A}) - P(\text{result B}) \]

One can also calculate the expected number of trials that will be required. The probability of a decision after one trial will be \( P(A) + P(B) \), and the probability of two trials will be \( 1 - P(A) - P(B) \). Hence the expected number of trials will be:

(4) \[ E[T/p] = P(A) + P(B) + 2[1 - P(A) - P(B)] \]

The following cost parameters are assumed:

\( C_T \) represents the cost of a trial. The figure includes the expense to both parties of preparation and litigation, including lawyers' fees, as well as the expense to the state of judges, jurors, courtrooms, and clerks.

\( C_R \) represents the social cost of a "reverse" or erroneous verdict, above and beyond the expenses of trial. This cost will be incurred whenever the community majority favors A but the jury brings in a verdict of B; it will represent the harm of convicting a man who should be acquitted, letting a criminal go unpunished, failing to make compensation to an injured party, or whatever. It is assumed that this cost is equally great whichever verdict the community favors—in other words that the cost of a verdict of B when the community favors A is as great as the cost of A when the community favors B.\(^7\)

\( C_{ND} \) represents the social cost of no decision in the case, of two successive hung juries leaving the matter unresolved. This cost will probably be paid in terms of uncertainty and of the chance that the entire legal order would break down, were all cases or a significant portion of them left undecided.

Using these parameters, we have then the following expression for the expected cost of employing a given jury decision rule in a case where a proportion \( p \) of the community favors A:

\[ E[T/p] = P(A) + P(B) + 2[1 - P(A) - P(B)] \]

\(^7\) This assumption is clearly reasonable as to civil trials. As to criminal trials, it is only apparently in conflict with the doctrine embodied in the "reasonable doubt" rule—that it is better to let ten guilty men go free than to convict one innocent man. The reasonable doubt instruction is given to the community during the trial (which they are again imagined as watching on television). Hence if 50 per cent are for acquittal, that does not mean that 50 per cent believe the accused to be innocent, but that they have a reasonable doubt of his guilt. Hence the balancing in terms of social cost is made, at this point, only between the cost of convicting someone who is very probably guilty, but about whom there is a reasonable doubt, and acquitting someone about whom there is no reasonable doubt. The balance between innocence and guilt implicit in the reasonable doubt test has already been struck in determining which of the two verdicts the community favors.
The first term corresponds to the expected loss from an erroneous verdict, the second to the expected loss from a failure to decide, and the third to the expected expense of trying (and retrying) the case.

It is instructive to observe how the value of expression (5) varies with respect to changes in the division of opinion in the community. Table I shows these changes, on the assumption that the cost of an erroneous verdict is ten times that of a trial, and that the cost of failing to decide the case is equal to that of a trial. Each entry represents the expected cost of a given jury decision rule (the columns) in the face of a given division of community opinion (the rows). Thus if the community is split 3-1 \((p = .75)\), the expected cost of using a 10-man decision rule will be .1644. For any given division of community opinion, the most efficient decision rule will be the one whose expected cost is least.

78. Units here are arbitrary, but for ease of computation the values of the parameters have been normalized so that \(C_T + C_R + C_{ND} = 1\). Hence for any given set of cost parameters, one can determine which decision rule is cheapest, but one cannot compare the effects, in terms of absolute cost, of varying the parameters.
values are printed in italics in the table.)

Thus if \( p \) is between .61 and .71, a decision rule of eight will be cheapest, if it is .73 or greater, a decision rule of seven will be best, and so forth.

If it were known in every case how the community was divided, then it would be possible to adopt the most efficient decision rule in each case. But of course a need for the jury arises only because the community split is unknown. Hence the most efficient rule for the jury will be the one that minimizes overall cost, whatever the community split. Notice in this connection, for example, that although for large \( p \) a decision rule of seven is cheapest, the difference between using a rule of seven and using a rule of eight or nine is very small. But where the rule of seven is more expensive (as at \( p = .59 \)), the extra cost is substantial. Use of the rule of seven will often prove cheapest, but when there is an error it will be a very large one. To find the rule cheapest overall hence requires the taking of an average: a lot of small losses are then, quite properly, outweighed by a single big gain. Thus, in Table I, the rule cheapest overall is the rule of eight, with an average cost of .1489, as opposed to .1639 for the rule of seven and .1492 for the rule of nine.

The foregoing discussion, of course, is valid only on the basis of the assumptions as to cost made in constructing Table I. But it is a remarkable fact that for any assumption about costs that is intuitively acceptable, decision rules of eight or nine produce the least overall expected cost. Thus Table II sets forth the results of varying the assumption as to the cost of an erroneous verdict. If the cost of an error is very low (1-5 times the cost of a trial) then of course a rule of seven is cheapest. But for more probable ratios of error cost to trial cost—anything from six to twenty-six—a rule of eight or nine is cheaper.

Nor is the conclusion much affected by varying the cost of failing to

79. For population splits in excess of .93, Table I appears to indicate that the expected cost of a decision rule of eight, nine, or ten jurors is as cheap as a decision rule of seven. In fact, when the calculations are carried out to more decimal places, the decision rule of seven continues to be slightly cheaper. The expected costs of a decision rule of more than seven jurors approaches that of seven in this range because when the community is overwhelmingly in favor of one result, the likelihood of either an erroneous decision or no decision is very slight. In mathematical terms, \( \text{P(result B)} \) and \( \text{P(no result)} \) approach zero and \( \text{E[T/p]} \) approaches one, so that the value of the equation approaches \( \text{C_r} \).

80. Speaking strictly, the computation is of the unconditional expected cost, independent of \( p \). The assumption made here is that the distribution of \( p \)'s is uniform. Hence,

\[
\text{E[C]} = \int_{.50}^{1} \text{E[C/p]} dp.
\]

This is equivalent to taking an average where the number of \( p \)'s is large. In constructing Table II, \( \text{infra, p} \) was allowed to vary by .005 from .505 to .595 in taking the average.
Table II

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Table III

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It is unlikely that this cost will be more than four or five times the cost of a trial, and it may well be much less. Table III shows the results of simultaneous variations in the cost of an erroneous verdict and of no decision. Each entry in the table is the decision rule whose overall expected cost is least for the relevant values of $C_{ND}/C_T$. Thus for $C_R/C_T = 8$, $C_{ND}/C_T = 0.50$, a decision rule of 9 is cheapest. It will be noticed that the decision rule of nine predominates, except in the upper right and lower left portions of the table. These corner regions, however, correspond to quite improbable assumptions about costs. It seems fairly clear that the cost of failing to decide a case and the cost of an erroneous verdict will both rise or fall with the im-

81. The author's intuition in this regard was supplemented by a poll of a modest sample of his colleagues. Estimates of the value of $C_{ND}/C_T$ ranged from 0.1 to 2 or 3.
portance of the subject matter of the case. Hence we should not expect a very small ratio for \( C_{od}/C_{or} \) to be associated with a very large one for \( C_{b}/C_{r} \), as happens in the lower left portion of the table. On the other hand, the cost of failing to decide a case will no doubt remain substantially less than the cost of deciding it wrongly, so that the values in the upper right portion of the table are unlikely.

These calculations answer the old complaint that the jury uses the same mechanism in what are, after all, very different cases with very different considerations affected by the decision. The fact is that, within a very broad range, whatever the cost of an erroneous verdict or of a failure to decide the case, decision by a majority of eight or nine is the most efficient. The coalition and verbal pressure mechanisms promote this optimal decision rule by making sure that a majority of eight or nine is normally able to translate its opinion into a verdict.

A word of caution is in order, however. The theoretical justification of rule by an eight- or nine-man coalition does not necessarily mean that the unanimity rule should be scrapped and replaced by one providing for verdicts by two-thirds or three-quarters of the jury.82

82. Verdicts by a less than unanimous jury are now allowed in civil cases in over half the states. ALAS. CONST. art. I, § 16; ALAS. STAT. § 09.20.100 (1957) (five-sixths); ARIZ. CONST. art. II, § 23; ARIZ. REV. STAT. ANN. § 21-102 (1958) (three-fourths); ARK. CONST. amend. XVI (three-fourths); CAL. CONST. art. I, § 7 (three-fourths); CONN. CONST. art. I, § 19; CONN. Gen. STAT. ANN. § 52-222 (1958) (three-fourths); HAWAII CONST. art. I, § 10; HAWAII REV. LAWS § 231-28 (Supp. 1965) (five-sixths); IDAHO CONST. art. I, § 7; IDAHO CODE ANN. § 2-104 (1947) (three-fourths); KY. CONST. § 248; KY. REV. STAT. §§ 29.330, 29.340 (three-fourths); LA. CODE Civ. ANN. art. 1795 (three-fourths); Mich. CONST. art. I, § 14 (five-sixths); MINN. CONST. art. I, § 4; MINN. STAT. ANN. § 546.17 (1955) (five-sixths after six hours); MISS. CONST. art. 3, § 31; MISS. CODE ANN. § 1801 (1955) (three-fourths); Mo. CONST. art. I, § 22(a); Mo. REV. STAT. ANN. § 494.210 (1949) (three-fourths); MONT. CONST. art. II, § 23; MONT. REV. Codes ANN. §§ 93-5110 (1947) (two-thirds); NEB. CONST. art. I, § 6; NEB. REV. Stat. § 25-1125 (1949) (five-sixths after six hours deliberation); NEV. CONST. art. I, § 3 (three-fourths); N.J. CONST. art. I, § 9, N.J. STAT. ANN. 2A:80-2 (1922) (five-sixths); N.M. CONST. art. II, § 12; N.M. STAT. ANN. §§ 20-1-1(48), 48(b) (1953) (five-sixths); N.Y. CONST. art. I, § 2; N.Y. CIV. PRAC. § 4113 (McKinney 1963) (five-sixths); OHIO CONST. art. I, § 5; OHIO REV. Code ANN. § 11420-9 (Page 1953) (three-fourths); OKLA. CONST. art. II, § 19 (three-fourths); S.D. CONST. art. 6, § 6; S.D. CODE § 33.1333 (Supp. 1969) (five-sixths); UTAH CONST. art. I, § 10 (three-fourths); VA. CONST. art. I, § 11; VA. CODE ANN. § 8-193 (1950) (two-thirds); WASH. CONST. art. I, § 21; WASH. REV. Code ANN. § 444.380 (1962) (five-sixths); WIS. Const. art. I, § 5; WIS. STAT. ANN. § 770.25 (1957) (five-sixths). In Colorado, Iowa, and in federal court a less than unanimous verdict is permitted if the parties so stipulate. FED. R. CIV. P. 48; COLO. Const. art. II, § 23; COLO. R. CIV. P. 48; IOWA Const. art. I, § 9; IOWA R. CIV. P. 203(a).

Less than unanimous verdicts in civil cases are permissible in state courts, since the seventh amendment does not apply to them. St. Louis & S.F.R.R. v. Brown, 241 U.S. 223 (1915); Minneapolis & St. L.R.R. v. Bombolis, 241 U.S. 211 (1915). The recent decision in Duncan v. Louisiana, 391 U.S. 145 (1968), however, would appear to render unconstitutional the practice in Oregon and Louisiana of permitting a less than unanimous jury to convict in serious criminal cases. LA. CONST. VII, § 41 (unanimous jury of 12 in capital cases; three-fourths majority if hard labor must be imposed); unaminous jury of five if hard labor may be imposed; ORS. CONST. art. I, § 11 (unanimous for first degree murder; five-sixth otherwise). It seems unlikely that Thompson v. Utah, 170 U.S. 343
In the first place, the model proceeded on the assumption of an immediate ballot without discussion. Most of the jurisdictions that permit less-than-unanimous verdicts do so after discussion of the case. This may distort the results, for the various pressure mechanisms will be operating. A verdict of three-quarters of the jury, after discussion, may well correspond to a verdict of only seven, without discussion.

Second, even if it be assumed that the vote would be taken without discussion, it is not clear that change would be desirable. The present rules of jury deliberation foster majority rule only to the extent the majority can articulate its opinions and pressure other jurors into accepting them. This has two considerable advantages over a simple ballot with an eight- or nine-man rule. For one thing, the unanimity rule increases respect for the legal process by masking the jurors' doubts and disagreements, and thus gives an appearance of certainty, precision and fairness to the system. More importantly, a simple balloting procedure fails to take into account the intensity of feelings of the jury. One juror may be passionately for acquittal, another only lackadaisically for conviction; a simple ballot gives equal weight to their feelings. When the majority must rely on coalition and verbal pressures to win over a minority, the passion of the smaller group may make it stronger than its numbers would indicate. Strength of feeling will make the minority able to talk longer and louder than it normally would, so that the balance of interaction will tip against them later, or perhaps not at all. Those with strong feelings, moreover, are likely to have loyalties to groups outside the jury. These ties may weaken their loyalty to the jury as a group, making them less susceptible to the essentially group-oriented coalition and verbal pressure mechanisms, and therefore harder to persuade. Coalition and verbal pressure represent the jury system's solution to the ancient democratic dilemma of how to give play to intensity of feeling when majority rule is the ultimate test.
III. Treatment of Deadlocked Juries

Equipped with the foregoing model of the jury deliberation process, we may return to the question of how a judge should deal with a jury that returns in apparent deadlock. Since only a fraction of juries come before judges for supplementary instructions, the object of a rational rule should be to preserve symmetry between juries that turn to the judge for advice and those that do not. The judge may of course encourage the jury to rely on all the methods of persuasion that the law allows in jury deliberation generally, but if the law disallows the use by juries of certain methods of persuasion, a judge may not encourage the use of such a method by a jury he addresses.

The right of a jury to hang is an extremely important and useful one. The operations of the two persuasion mechanisms, coalition pressure and verbal pressure, define the point at which it is proper and theoretically useful for the jury to exercise this right. When the mechanisms are working properly, the judge's intervention should be such as not to alter the results of their operation. But if for some reason the mechanisms are being frustrated, the judge's task is to make them function as they should.

We may therefore define a "properly" hung jury as one where the persuasion mechanisms, working to full efficiency, will not be sufficient to bring about agreement. In an "improperly" hung jury the mechanisms will be sufficient to bring about agreement, but for some reason do not operate at full efficiency. The law's aim will be to lead improperly hung juries to agreement while leaving properly hung ones unaffected. Precisely how the judge is to accomplish the task of separating properly from improperly hung juries will depend on the facts of each situation. In no case will the judge, even after an examination of the jurors, be able to say with complete confidence what type of jury he is dealing with. But for purposes of analysis it may be convenient to discuss separately cases where the judge will be able to shape his action

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87. '[A]s history reminds us, a succession of juries may legitimately fail to agree until, at long last, the prosecution gives up. But such juries, perhaps more courageous than any other, have performed their useful, vital functions in our system. This is the kind of independence which should be encouraged. It is in this independence that liberty is secured.' Huffman v. United States, 297 F.2d 754, 759 (5th Cir. 1962) (dissent). The opposite theory obtained, for example, under the old Articles of War, Rev. Stat. § 1342 (1875): a court martial that could not agree was said to have "failed to discharge its duty." Cf. United States v. Blair, 14 U.S.C.M.A. 66, 24 C.M.R. 899 (1957). But hung courts martial are now possible under the Uniform Code of Military Justice, United States v. Jones, 14 U.S.C.M.A. 177, 33 C.M.R. 389 (1963), owing to a procedural conundrum. See generally Henson, The Hung Jury: A Court Martial Dilemma, 35 Mil. L. Rev. 59 (1967).
in view of the actual situation in the jury and cases where he must act in the dark.

A. *When the Judge's Conduct Will be Shaped by the Situation in the Jury Room*

Of the situations that may face the judge, the easiest is that in which the jury either has not employed, or has not effectively employed, the means of persuasion open to it. Here the judge can help most in bringing about agreement in improperly hung juries, while endangering least the stability of properly hung juries. For a jury that has not effectively used these devices is—even if not certainly improperly hung—at least not yet properly hung.

Of the ways in which a jury may fail to employ the permissible persuasion methods effectively, probably the most common is the failure to ballot openly. Both coalition pressure and verbal pressure depend for their effectiveness on each member of the jury's knowing where every other member stands, and are thus likely to be more effective where polling is frequent and open than where it is not. Studies of decision-making by juries tend to show that minority jurors are persuaded at a substantially faster rate when juries take open votes, so that both the size of the split and each juror's position are known, than where they take no vote at all, so that only the positions of those jurors who choose to commit themselves are known. Juries that follow intermediate patterns like voting by secret ballot (so that the size of the split but not the position of each juror is known) will have intermediate persuasion rates.

Juries, indeed, appear to have some understanding of the increased effectiveness which results from open balloting: well over half spend at least their final period of deliberation divided into such coalitions, and it is significant that the trend away from secret balloting and deliberation without voting is most marked in juries that have difficulty in reaching agreement. Hence a judge interested in the most effective use of the coalition and verbal pressure mechanisms will encourage a jury to take frequent, open votes, rather than relying on simple discussion or on the secret ballot.

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88. C. Hawkins, *supra* note 32, at 100-01. Juries that took no ballots except the final one that registered agreement averaged 21 minutes per switched vote; juries that balloted immediately averaged 12 minutes per switched vote.
89. *Id.* 111.
90. Such interference is contrary to judicial practice. Standard charges disclaim any intention of telling the jury how to conduct its deliberations. “You may conduct your

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The persuasion mechanisms may also not work properly when a single juror withdraws from participation. Verbal pressure, and to some extent coalition pressure, depend on all jurors' remaining part of the group. Jurors must take their task and the group seriously, must participate and be drawn into the discussion. For example, one researcher cites the case of a single juror who succeeded in hanging a jury, contrary to what the persuasion model would lead us to expect, by turning the proceeding into a farce. Such conduct, hard to justify even on the most traditional theory of the jury, makes it extraordinarily difficult for verbal pressure to result in persuasion. The judge's assistance will be useful in this situation if he can successfully urge the dissenter back into participation.

deliberations as you choose," the judge says, "but I suggest that you now retire and carefully consider again the evidence." Allis v. United States, 73 F. 165, 183 (1895); 27 F.R.D. 102-03 (1962).

Popular jury mythology, moreover, disapproves of open balloting. Thus one commentator argues against taking any early polls, and urges that voting, when done, be by secret ballot. G. Lehman, WHAT YOU NEED TO KNOW FOR JURY DUTY 40-46 (1968). Yet Lehman concedes that in fact most juries use either an immediate open ballot, or its equivalent—a "go-round" where each juror states his opinion. Id. 40-41. And he disapproves of balloting for exactly the reasons that it is both permissible and useful—that it tends effectively to persuade dissenting jurors. Id. 40. Cf. C. Hawkins, supra note 32, at 101-02.

The matter does not come up in the decided cases, since judges do not normally make suggestions as to how jurors should deliberate. In United States v. Mack, 249 F.2d 321 (7th Cir. 1957), however, the trial judge asked the jury whether they had balloted. No objection was taken, and the Court of Appeals did not discuss the point.

In R. v. Davey, [1960] 1 W.L.R. 1287 (C.A.), the trial judge suggested that jury deliberations should be conducted like a "board meeting," with never a vote taken. The Court of Criminal Appeal disapproved:

The jurors might also have thought that they were now entitled to regard themselves more as being in the position of committeemen or members of a board of directors, who, after discussing a particular point on which contradictory views were held, might eventually achieve unanimity in this fashion, namely, that the juror or jurors who held a view contrary to that held by the majority, or held a view upon which he was unable to form a concluded opinion, was entitled, as is a member of a committee or a member of a board of directors, to sink his own view without amending it or calling for a vote, and to agree with the majority of his colleagues although he himself was still in a state of uncertainty. We need hardly add that the course is not permissible to a juror who has taken a personal oath to render a true verdict according to the evidence.

1 W.L.R. 1287, 1291-92. The actual decision is in accord with the suggestion made here—since a board meeting is normally not broken into factions—but the court’s reasoning is not. For criticism see Andrews, Legal Realism & the Jury, [1961] CRIM. L. REV. 758, 762-64.

91. As most jurors do:
[M]ost people, once actually serving on a trial, become highly serious and responsible toward their task and toward the joint effort to deliberate through to a verdict. . .

Anecdotes about jury frivolity and irresponsibility are almost always false.


92. "He sang, looked out the window, made jokes, and refused either to talk about the case or to go along with the majority view." C. Hawkins, supra note 25, at 130-37.

93. People v. Tarantino, 45 Cal. 2d 590, 290 P.2d 505 (1955), shows how effectively a judge can act. At 4 p.m. on the second day of deliberation, the jury stood 9-3. At 10:40 a.m. the next day, the foreman told the judge that they stood 11-1, and that further argument
To be helpful in either of these situations—ineffective balloting or withdrawal from participation—the judge must be able to learn what is happening in the jury room. But here the law imposes a roadblock: very strict rules, especially in federal courts, inhibit the judge from inquiring into the jury's deliberations. These rules, which seem an exaltation of judicial ignorance, find their origin in Brasfield v. United States. There the Supreme Court, speaking through Justice Stone, held that for a judge to inquire how the jury stands is reversible error per se. The doctrine of Brasfield has been applied rigidly since its promulgation, despite the belief of commentators and, it would appear, most judges that the rule is foolish.

would result in bodily harm to one of the jurors. The judge warned them sharply against injuring each other; and by the next morning all was well and deliberations were friendly. That afternoon, however, the foreman reported that the opposing juror was refusing to deliberate, whereupon the judge told the jury that to refuse to discuss the case was a violation of their jurors' oaths. Four hours later, the jury brought in a unanimous verdict. The Supreme Court found no error in the trial judge's actions.

At least by implication, Lord Devlin has recognized the distinctive situation presented when a single juror has withdrawn from participation. P. BERELSON, TRIAL BY JURY 50-57 (1956). While opposing verdicts rendered by majorities of eight or nine, such as "reformers generally have suggested," id. 54, Lord Devlin advocates different treatment of the 11-1, or "odd man out," situation. Id. 56-57. But since a single juror able to hold out against his fellows will almost certainly have ceased to participate in the group, see B. BERELSON & G. STEINER, supra note 36, at 335, Lord Devlin's proposal amounts to the suggestion that it is withdrawal from participation that the legal system should oppose.

An example of the serious consequences this rule can have is Kawakita v. United States, 190 F.2d 506 (9th Cir. 1951), a capital case in which an extraordinarily fractious and angry jury returned to complain of their foreman and to request a new one. Despite his obvious concern over the apparent disarray of the jury, the judge's fear of reversal caused him to avoid any but the most generalized of comments.

Many state courts do not follow Brasfield. They hold instead that a trial judge may properly inquire into the jury's division, provided that he does not learn which side favors conviction and which acquittal. People v. Wooley, 15 Cal. App. 2d 669, 59 P.2d 1065 (1936); State v. Baken, 293 S.W.2d 900 (Mo. 1956); Reed v. State, 336 P.2d 932 (Okla. Crim. 1959). Still other cases are ambiguous: purporting to follow Brasfield, they do so in cases where the facts show that the judge learned which side the majority favored. State v. Middleton, 218 S.C. 452, 63 S.E.2d 163 (1951).

The criticism in Dunkel was particularly scathing, since the combined talents of Judges Clark, Hand, and Swan had been unable to find a way around a rule they disliked:

We are bound to say that we do not feel happy over the result, for here the defendants appear to have had the benefit of the most careful deliberation by the jury and it is certainly doubtful whether in fact the judge's remarks may have had any effect in restricting or controlling that deliberation. Here was a long and difficult trial, where the evidence of guilt was substantial, now upset after a seven weeks' effort for this one perhaps doubtful slip. The defendants, on bail, have already had the benefit of extreme delay in making up the record and preparing the appeal.
Brasfield itself rests on only the most conclusory reasoning, but it boils down to the proposition that inquiry can do no good and much harm.

We deem it essential to the fair and impartial conduct of the trial, that the inquiry itself should be regarded as ground for reversal. Such procedure serves no useful purpose that cannot be attained by questions not requiring the jury to reveal the nature or extent of its division. Its effect upon a divided jury will often depend upon circumstances which cannot properly be known to the trial judge or to the appellate courts and may vary widely in different situations, but in general its tendency is coercive. It can rarely be resorted to without bringing to bear in some degree, serious although not measurable, an improper influence upon the jury, from whose deliberations every consideration other than that of the evidence and the law as expounded in a proper charge, should be excluded. Such a practice, which is never useful and is generally harmful, is not to be sanctioned.98 Yet this conclusion is almost certainly wrong. The jurors already know how they stand. It is hard to see how the pressure on them is increased if the judge also knows, so the potential harm is likely to be small. And we have already seen that permitting the inquiry may in fact allow the judge to do some good and may lead him to discover and remedy a withdrawal from participation.

B. When the Judge Cannot Shape His Actions to the Situation in the Jury Room

The majority of situations the judge faces will be less clear-cut than the one we have been discussing. On inquiring, the judge will learn that the split is substantial and that the jury has balloted openly for some time without reaching agreement; he cannot tell whether he is dealing with a properly or an improperly hung jury. It may be that the strain of discussion is beginning to tell on the minority; it may be that they have reached equilibrium and will hold out forever.99 The judge's

This case does not make for seemly law administration. But the federal precedents are compelling and we would hardly improve the situation by trying to introduce into the system refined distinctions lacking substance. 173 F.2d at 511. A few courts have not scrupled to introduce the refined distinctions Judge Clark condemned. Compare Anderson v. United States, 262 F.2d 764 (8th Cir. 1959); with Jacobs v. United States, 279 F.2d 826 (8th Cir. 1960). See also Beale v. United States, 263 F.2d 215 (6th Cir. 1959); Butler v. United States, 254 F.2d 875 (5th Cir. 1958).

98. 272 U.S. 448, 450.

99. Only from the outcome will it be learned whether the jury is properly or improperly hung. That is, if the instructions the judge delivers are well-framed, the definition of a properly hung jury here becomes operational: a properly hung jury is one such
role in this situation can only be that of a catalyst. His words, though the same whatever the situation of the jury, should be chosen so their effect on differently situated juries will be different. Properly hung juries will feel no effect; improperly hung ones will move toward unity. Three types of instructions have some chance of performing this catalytic function: urging respect for others’ opinions, urging active deliberation, and urging jurors to defend their position.

A standard sentence from the Allen charge, urging jurors to respect their fellows’ opinions, assists the coalition pressure mechanism to work.100

[1] If much the larger number were for conviction, a dissenting juror should consider whether his doubt was a reasonable one which made no impression upon the minds of so many men, equally honest, equally intelligent with himself. If, upon the other hand, the majority was for acquittal, the minority ought to ask themselves whether they might not reasonably doubt the correctness of a judgment which was not concurred in by the majority.

The instruction is careful to avoid the vice of some stronger statements. It makes clear that persuasion is to come about through the effect in each juror’s own mind of knowledge of the size of the opposing coalition. The superiority of the majority’s position lies not in any external presumption but in how minority jurors naturally react when confronted with a majority. Thus the Allen instruction is permissible,101 whereas instructions that “the rule is that the majority has better judgment,”102 or “the judgment of the majority is superior,”103 which state judgments external to the minority jurors’ reactions, should be disapproved.

If the coalition pressure mechanism justifies urgings to respect the opinions of others, urgings to deliberate and to defend one’s position are justified by the verbal pressure mechanism. Thus judges often advise juries that they must participate in the discussions, or that they should “listen, with a disposition to be convinced.”104 Such instructions

that, given a well-framed instruction, it still fails to reach agreement. This is analogous to defining an acid as that which will turn blue litmus paper red. But there is no tautology, because the test for a well-framed instruction is how it is likely to affect what we have previously defined as a properly hung jury, see pp. 129-30 supra. A well-framed instruction is one that does not alter the balance of a jury that has effectively utilized the coalition and verbal pressure mechanism.

102. Green v. United States, 309 F.2d 852 (5th Cir. 1962).
103. Gideon v. United States, 52 F.2d 427, 431 (8th Cir. 1931).
are clearly correct. A jury whose members do not talk to one another has no hope of using the open-coalition mechanism, while the instruction may accomplish some good if the jury is divided by anger or by the refusal of some jurors to participate.

Of more interest is the instruction that jurors are expected to defend their positions. Jurors are told that a position that cannot be defended is an unsuitable reason for hanging a jury. In criminal cases, this instruction may take the form: "A reasonable doubt is one for which you can give a reason." Assuming that the minority favors acquittal and that "reason" is read to include feelings, emotions, and opinions, it would seem that the substance of the instruction ought to be approved.\(^{105}\) To require that a juror who disagrees with the majority articulately defend himself, recognizes that the critical variable in the verbal pressure mechanisms is the dissenter's willingness and ability to speak up. When he can no longer maintain his end of the balance of interaction, conversion will normally follow. Hence this instruction, by setting the verbal pressure mechanism to work, aids improperly hung juries without distorting properly hung ones.

### C. What the Judge Should Avoid

We have spoken so far only of how the judge may assist an improperly hung jury to reach agreement: our discussion has aimed at pro-

\(^{105}\) Even stronger objection is made that the judge defined a "reasonable doubt" as one for which, when asked what it is by a fellow juror, "you can give a reason, then that indicates that it is a reasonable doubt . . . ." Such a charge, it is argued, might intimidate a juror by suggesting that he may be called upon to explain his doubts, although it surely does not require him to justify them. When a similar charge was first challenged in this court a half century ago, the attack was termed "hyper-critical." Marshall v. United States, 2 Cir., 197 F. 511, 512-513, cert. denied, 226 U.S. 607, 53 S. Ct. 112, 57 L.Ed. 379 (1912). But for subsequent judicial commentary, we should be inclined to agree; the illustration seems to put the point to jurors rather more intelligently than the usual instruction, half of which defines the phrase in terms of itself while the other half attempts to explain it by negatives. The objection that the judge's illustration demands not mere formulation of the doubt but some attempt at articulation seems, as the Government points out, rather inconsistent with the "Allen charge," Allen v. United States, 164 U.S. 492, 501, 17 S.Ct. 154, 41 L.Ed. 528 (1896), advising each of the jurors, at a time when the court knows that at least some do have a reasonable doubt, to consider the reasonableness of a doubt "which made no impression upon the minds of so many men, equally honest, equally intelligent with himself." Later decisions by this court have held that the instruction here given is "not approved" and "perhaps unwise" but is "not erroneous." United States v. Woods, 2 Cir., 66 F.2d 262, 265 (1933); United States v. Farina, 2 Cir., 184 F.2d 18, cert. denied, 340 U.S. 875 (1950); United States v. Klock, 2 Cir., 210 F.2d 217, 223-24 (1954); United States v. Owens, 2 Cir., 263 F.2d 720, 723 (1959); United States v. Eur, 2 Cir., 263 F.2d 517 (1959). That seems a good place to leave it, especially in a case where no objection was made. Friendly, J., in United States v. Davis, 328 F.2d 864, 867-68 (2d Cir. 1964). Accord, United States v. Åiken, 373 F.2d 294 (2d Cir.), cert. denied 389 U.S. 833 (1967); United States v. Harris, 346 F.2d 182 (4th Cir. 1965); People v. Guidici, 100 N.Y. 503, 3 N.E. 493 (1885). Contra, Pettine v. Territory of New Mexico, 201 F. 489 (8th Cir. 1913); Owens v. Commonwealth, 185 Va. 689, 49 S.E.2d 895 (1947) ("good and substantial reason").
ducing positive actions or instructions. Perhaps more important than these positive actions are the negative rules that keep the judge from doing harm. If the judge fails to assist a jury that is improperly hung, there will be no decision; but if he does what he should not, he may very well induce a properly hung jury to reach an improper verdict.\textsuperscript{106} An instruction that involves some method of persuasion other than coalition or verbal pressure works with equal effect on properly or improperly hung juries. Hence it is likely to distort the deliberation mechanism and, in consequence, the outcome of the case. These instructions may take several forms.

1. \textit{The Duty to Decide}

It is error for the judge to tell the jurors that they have “got to” or “must” agree. Since a jury is at perfect liberty to hang, the instruction that it has a duty to decide the case is impermissible.\textsuperscript{107} This casts suspicion on the common instruction that no twelve men “more intelligent, more impartial, or more competent to decide” the case will ever be found.\textsuperscript{108} Taken on its face, this is merely a proper reminder that the jury is selected because of its role as representative of the community.\textsuperscript{109} But it is in fact an “appeal to the jury’s pride.”\textsuperscript{110} The implication of the instruction, which makes it inadvisable, is that the jurors can prove their intelligence and competence only by deciding the case. In making the avoidance of a hung jury the test of proper performance, it implies that they have a \textit{duty} to reach agreement.

2. \textit{The Judge as “Expert”}

When the opinions of a group or faction are well-established, it is clear that the opinions of an outsider will have little effect.\textsuperscript{111} Thus a

\textsuperscript{106} See pp. 129-30 supra.

\textsuperscript{107} Jenkins v. United States, 380 U.S. 445 (1965). The doctrine of \textit{Jenkins} was taken a step farther in the recent case of United States v. Harris, 391 F.2d 348 (6th Cir. 1968). There the Court of Appeals reversed a trial judge who said, “this lawsuit must be decided—it must be decided at some time by some jury.” The court relied on \textit{Jenkins}, and on its view that the statement was not “completely accurate,” since “[i]t is conceivable...[that] it might never be possible to obtain a unanimous verdict of either acquittal or guilt.” 391 F.2d at 355. But while the statement criticized in \textit{Jenkins} was wrong, since \textit{that particular} jury had not duty to decide, the trial court’s view in \textit{Harris} was technically correct, since the probability of an infinitely long series of hung juries is in fact zero.

\textsuperscript{108} United States v. Allis, 75 F. 165, 182 (C.C.E.D. Kan. 1893), aff’d, 155 U.S. 117 (1894).

\textsuperscript{109} Cf. pp. 117-19 & note 71 supra.

\textsuperscript{110} Cf. Edwards v. United States, 7 F.2d 598 (8th Cir. 1925).

\textsuperscript{111} Thus, in a series of experiments with schoolchildren, the experimenter found that he was able to influence the number of errors his subjects made by coaching some of the schoolchildren to give deliberately wrong answers. But the subjects’ level of error returned to normal when it was the teacher, rather than the other children, who attempted to
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united jury will do what it has made up its mind to do regardless of
the judge.\textsuperscript{112} If the jurors need support for their opinions, they will
find it in the approval of other jury members, and the judge's position
will be irrelevant. They will listen politely, but do otherwise. But the
situation is entirely different if the judge appears to join one of the
factions in a hung jury. He thereby lends his prestige to the adherents
of that faction: the jurors perceive him as an expert and defer to him
exactly as they would to a lawyer on the opposing coalition. Once the
judge is seen as a member of a faction, that faction is not confined in
its persuasion of the others to the coalition and verbal pressure
mechanisms. Intervention by the judge on one side or the other
reintroduces into the jury room the persuasion through expertise that
the law tries elsewhere to weed out.\textsuperscript{113}

a. Comments on the Case or Evidence

When the judge gives the jurors his view of the case and the evidence
before they begin deliberating, he is speaking to them individually and
helping them organize their opinions in their own minds. His instruc-
tions help, as does every event at the trial, to create the initial split in
the jury room. Ultimately factions will be organized around the judge's
comments, as they will be around all the other evidence, but the judge
will not be in the position of having actually sided with one faction or
the other since they did not exist when he made his comments.\textsuperscript{114}

As factional deliberation advances, the content of arguments becomes
increasingly insignificant.\textsuperscript{115} Factional positions will be established on

mislead them. This result occurred despite the fact that the children, questioned after-
wards, admitted that the teacher's opinion was usually correct; they were simply much
more influenced by members of their own group than by an outsider. R. BERENDA, THE
EFFECT OF GROUP PRESSURE ON THE JUDGMENTS OF SCHOOLCHILDREN (1959).

\textsuperscript{112} Such was the case in all the famous cases of rebellious juries, e.g., Trial of William
Penn, 6 How. St. Tr. 951 (1670); William D. Shipley, 21 How. St. Tr. 847 (1784), as well
as the now more common instances of compromise verdicts and disregard of instructions.
Fairmount Glass Works v. Cub Fork Coal Co., 287 U.S. 474 (1933); Karcesky v. Laria, 382
Pa. 227, 114 A.2d 150 (1955). The memory of such strongnecked juries is no doubt responsible
for views like those of Learned Hand's in United States v. Olweiss, 138 F.2d 798 (2d
Cir. 1943), motion for leave to file petition for cert. denied, 321 U.S. 744 (1944). The trial
judge told the jury that the case was "simple" and presented "not . . . the slightest diffi-
culty." "[Y]ou cannot," he said, "act like a boy and go in a corner and say, 'I have made up
my mind and that is the end of it.'" On appeal, Judge Hand found no error, and com-
mented that: "A jury which felt itself coerced by such language would have lacked all
independence of mind; would have been no better than a sounding board for any judicial
whisper." 138 F.2d at 801.

\textsuperscript{113} See pp. 114-16 supra.

\textsuperscript{114} This point is overlooked in cases such as Tuckerman v. United States, 291 F. 958
(6th Cir.), cert. denied, 263 U.S. 716 (1923), which simply state that it makes no difference
whether the judge makes his comments before or during the jury's deliberations. Cf. note
118 infra.

\textsuperscript{115} See p. 108 supra.
all aspects of the case, and jurors will tend to use arguments as badges—to identify which side a speaker is on. The arguments become a parade of symbols, while below the surface the real process of persuasion through factional pressures goes on. If the judge comments on the case or evidence at this stage, his point of view on even relatively minor matters will identify him with a faction, and the influence of that faction may increase disproportionately. Whether moderate in tone (as when the judge simply directs the jury’s attention to one fact of the case) or forceful (as when the judge says he believes the case is “open-and-shut”), such comments should be disallowed.  

b. References to the Expense of a New Trial

Judges faced with deadlocked juries often refer to the trouble and expense of a new trial; jurors are told that they will do as good a job as anyone else and that the alternative is a wasteful and expensive new trial. Judges embellish this point in different ways: sometimes they emphasize the pecuniary loss to the parties, sometimes the cost to the taxpayers, sometimes the loss of time and convenience to witnesses, sometimes the uncertainty hanging over the litigants.

116. E.g., Hyde v. United States, 225 U.S. 347 (1912); Calcara v. United States, 53 F.2d 767 (8th Cir. 1931); Dwyer v. United States, 17 F.2d 696 (2d Cir.), cert. denied, 274 U.S. 756 (1927).

117. E.g., United States v. Olweiss, 138 F.2d 798 (2d Cir. 1943), motion for leave to file petition for cert. denied, 321 U.S. 744 (1944) (“simple”); Weiderman v. United States, 10 F.2d 745 (8th Cir. 1926) (“no difficulty”); Quong Duck v. United States, 293 F. 563 (9th Cir. 1923) (“I don’t understand” why no verdict); People v. Talkington, 8 Cal. App. 2d 75, 47 P.2d 368 (1939) (“I believe I agree with [the prosecutor] almost absolutely.”)

118. As has already been recognized, the law is otherwise. Courts draw no distinction between the judge’s power to comment on the case before the jury retires and his power afterwards. Simmons v. United States, 142 U.S. 148 (1891); Horning v. District of Columbia, 254 U.S. 135 (1920); United States v. Olweiss, 138 F.2d 798 (2d Cir. 1943), motion for leave to file petition for cert. denied, 321 U.S. 744 (1944); Kesley v. United States, 47 F.2d 453 (5th Cir. 1931); Tuckerman v. United States, 291 F. 958 (6th Cir.), cert. denied, 263 U.S. 716 (1923); State v. Scarles, 113 Conn. 247, 155 A. 213 (1931). Contra, Boyett v. United States, 48 F.2d 482 (5th Cir. 1931); Garst v. United States, 180 F. 339 (4th Cir. 1910).

119. “You realize, of course, that we have tried this case now for four days and if you do not come to an agreement this case probably undoubtedly will have to be tried all over again.” Instruction approved in United States v. Winters, 158 F.2d 674 (2d Cir. 1946). The Allis charge contains the phrase, “The trial has been long and expensive . . . [T]here is no reason to suppose that the case will ever be submitted to 12 men . . . more competent to decide it.” Allis v. United States, 73 F. 165, 182 (C.C.E.D. Kan.), aff’d, 153 U.S. 117 (1894).

120. Huffman v. United States, 297 F.2d 754 (5th Cir.), cert. denied, 370 U.S. 955 (1962); Logsdon v. United States, 253 F.2d 12 (6th Cir. 1958); Sussman v. United States, 213 F. 913 (9th Cir. 1914); St. Louis & S.F.R.R. v. Bishop, 147 F. 496 (8th Cir. 1906).

121. United States v. Smith, 305 F.2d 341 (4th Cir. 1962); Huffman v. United States, 297 F.2d 754 (5th Cir.), cert. denied, 370 U.S. 955 (1962); Logsdon v. United States, 253 F.2d 12 (6th Cir. 1958); Shea v. United States, 260 F. 807 (9th Cir. 1919).

122. Berger v. United States, 62 F.2d 459 (10th Cir. 1932); Shea v. United States, 260 F. 807 (9th Cir. 1919); Sussman v. United States, 213 F. 913 (9th Cir. 1914).

123. United States v. Smith, 303 F.2d 341 (4th Cir. 1962) (“fairness to both parties”);
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Such references, like post-deliberation comments on the case or the evidence, tend to identify the judge with one jury faction. The expense of a new trial falls more heavily on the plaintiff or prosecution than on the defendant. In most criminal cases, it will not be the defendant who suffers from a new trial, but the government. Jurors realize that retrials seldom occur when the first jury hangs,\textsuperscript{124} and the judge rarely points out that any time the defendant serves before conviction will not count against his sentence.\textsuperscript{125} Harm is compounded by the indiscriminate way judges mix together references to expenses incurred by the government as prosecutor with those incurred as forum.\textsuperscript{126} The jury is led to associate a saving of the judge's time with a saving of the prosecutor's since both are expenses to be borne by the "taxpayer."\textsuperscript{127}

Even in civil cases, concern about the expenses of a new trial tends to indicate that the judge favors the plaintiff. For the plaintiff will surely be more harmed than the defendant by the necessity of bringing a new action: he is seeking something that the defendant now has, or trying to force the defendant to do something he does not want to do. Delay is half the defendant's aim.

c. Unequal Treatment of the Majority and Minority

The judge will also be perceived as siding with one or the other jury faction if he fails, roughly speaking, to give "equal time" to both factions in his strictures. This perceived endorsement is independent of what the judge actually says. If he addresses his remarks primarily to dissenters, the judge will appear to support the majority, even though what he says goes no further than to ask the minority to participate in the discussions and to allow the persuasion mechanisms to operate.

This danger is particularly acute in connection with the standard \textit{Allen} instruction that each dissenter should examine his views in the

\textsuperscript{124} Custom sets a maximum of one retrial in England: if the second jury hangs, too, the accused goes free. \textsc{P. Devlin, Trial by Jury 52} (1956).

\textsuperscript{125} \textsc{Shea v. United States, 260 F. 807 (9th Cir. 1919)}, an exception, drew attention to the defendant's being imprisoned.

\textsuperscript{126} \textsc{Huffman v. United States, 297 F.2d 754 (5th Cir.), cert. denied, 370 U.S. 955 (1962); Logsdon v. United States, 253 F.2d 12 (6th Cir. 1958).}

\textsuperscript{127} In addition to the inconvenience caused to you, your presence here and the presence of the Court officials has been a substantial expense to the Government.

All of these Court officials, including me, are here at Government expense.

To say it another way, the taxpayers are making a substantial contribution to the operation of this Court in the trial of this case.

\textsc{Huffman v. United States, 297 F.2d 754, 756 (5th Cir.), cert. denied, 370 U.S. 955 (1962). See also Orr v. State, 40 Ala. App. 45, 111 So. 2d 627 (1958).}
light of the views of the majority. Although such an instruction is proper, if delivered alone it would seem to condemn only the minority's stance. Hence most judges wisely attach to the instruction a "balancing" phrase, to the effect that the majority should also re-examine its beliefs. As a practical matter this is almost useless, as juries are hardly ever turned around by a minority. But the second instruction does serve to limit the first instruction's effect to assisting the coalition pressure mechanism by keeping the judge's expertise from being attributed to the majority.

3. The Pressures of Time

The most blatant distortion of the jury deliberation process occurs when a judge actually threatens the jury. The use of contempt powers and deprivation of food and water until they reach agreement are extreme instances. Such coercion introduces strains not contemplated by either the coalition pressure or verbal pressure mechanisms and should be forbidden.

Judges sometimes threaten to hold the jury until it reaches agreement. Great pressure is applied to the members of a jury which deadlocks shortly before the close of the day if they are

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128. It is only an affirmation of the coalition pressure mechanism. See p. 134 supra.

There is some authority that a charge that urges the minority to re-examine its views without imposing a similar duty on the majority is improper. Mangan v. Broderick & Baccom Rope Co., 351 F.2d 24 (7th Cir. 1965), cert. denied, 383 U.S. 926 (1966); Elkmeler v. Bennet, 143 Kan. 888, 57 P.2d 87 (1936); Acunto v. Equitable Life Assur. Soc., 270 App. Div. 386, 60 N.Y.S.2d 101 (1946); Mead v. City of Richland Center, 237 Wis. 537, 297 N.W. 419 (1941). But see Thompson v. Allen, 240 F.2d 266 (10th Cir. 1956), which appears to have laid down the more usual rule:

It is asserted that this instruction was one-sided; that it over-emphasized the duty of the minority to re-examine their thinking because of the fact they were in the minority; and that it did not equally emphasize the duty of the majority to give further consideration to the views of the minority. It no doubt would have been a wholesome addition to the instruction had the Court also alluded to the continuing duty of the majority to listen to the views of the minority. But failing to do this does not condemn the instruction or constitute reversible error unless it must be said from a consideration of the instruction as given that it was coercive in that it gave the jury the impression that they must reach a verdict and left the impression with the minority that they should heed the majority, notwithstanding that they would otherwise still adhere to their individual views.

240 F.2d at 269. The instructions approved in Allen, Allis, and Kawakita all omit any reference to the majority's duty to reconsider, so that cases approving unmodified Allen charges must be taken as rejecting the necessity of urging the majority to reconsider. United States v. Kahaner, 317 F.2d 459 (2d Cir.), cert. denied, 375 U.S. 836 (1963); Jones v. Positive Safety Mfg. Co., 319 F.2d 324 (6th Cir. 1963); Kleven v. United States, 240 F.2d 270 (8th Cir. 1957); Orton v. United States, 221 F.2d 652 (4th Cir.), cert. denied, 350 U.S. 821 (1955).

130. E.g., Cole v. Swan, 4 Greene 32 (Iowa 1855) (no food); Pope & Jacobs v. State, 36 Miss. 121 (1858) (no food or drink); Mead v. City of Richland Center, 237 Wis. 537, 297 N.W. 419 (1941) (no heat).

131. As they usually are. See, e.g., cases cited note 130 supra; see also Cook v. United States, 254 F.2d 871 (6th Cir. 1958); People v. Sheldon, 156 N.Y. 266, 50 N.E. 840 (1898).
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told that they will be required to return the next day, meaning the loss of work and time and the expense of travel. The strain is expected to, and often does, result in the quick unhanging of a deadlocked jury.132

Yet it is difficult to condemn this practice, for a threat to keep a jury together for a few more hours cannot be faulted in terms of the coalition and verbal pressure mechanisms, both of which become more effective over time. Indeed, one may assume that, kept together long enough, all juries would eventually reach unanimity through the force of coalition and verbal pressure. The question, then, is how long a judge may permissibly keep the jury together.133

Current legal doctrine says only that the judge may keep the jury together a “reasonable” time, to be determined both by the complexity of the evidence and the likelihood of the jury’s reaching agreement.134 We may assume that a jury may in fact need a longer time to come to an agreement in a complex case than a simple one. But it is not at all clear that the judge should take into account the probability that the particular jury he is addressing will be brought into agreement by a further period of deliberation.

The maximum deliberation period determines how effective the coalition and verbal pressure mechanisms will be and hence the location of the tipping point in the jury. The proper location of this point should reflect the balance between the cost of bringing in a reverse verdict135 and the cost of a new trial. The balance of these two factors, in turn, is determined not by whether any particular jury is more or less

132. With the judge’s importuning words ringing in their ears, the jurors left the courtroom at 5 a.m., and returned with a verdict at 6:05 a.m. What happened in that hour? It is obvious what happened. Flesh overcame will, exhaustion broke down resolution, the legions of sleep conquered the forces of vigilance. The verdict finally rendered may have been a correct one, but it also may have been an irresponsible one. Commonwealth v. Moore, 398 Pa. 198, 157 A.2d 65 (1959) (Mussmanno, J., dissenting).

133. It should not matter particularly whether he simply keeps them together for that time, or informs them at some time during their deliberations that they will be required to stay for some further period; the pressure induced by the anticipation of staying overnight is unlikely to be greater than the pressure from actually staying.

134. E.g., Jenkins v. United States, 149 F.2d 118 (5th Cir.), cert. denied, 326 U.S. 721 (1945); United States v. Novick, 124 F.2d 107 (2d Cir. 1941), cert. denied, 315 U.S. 813 (1942); People v. Goldberg, 110 Cal. App. 2d 17, 242 P.2d 116 (1952); State v. Williams, 39 N.J. 471, 189 A.2d 193 (1963); People v. Sheldon, 156 N.Y. 268, 50 N.E. 840 (1898); Commonwealth v. Moore, 398 Pa. 198, 157 A.2d 65 (1959). A South Carolina statute provides that, though the judge may send the jury back once for further deliberations, if they return a second time he must discharge them unless they consent to further discussions. S.C. CODE ANN. § 38-303 (1962). Consent may be implied, however, and whether it is present is a matter of judicial discretion. Edwards v. Edwards, 293 S.C. 85, 121 S.E.2d 432 (1961). A collection of cases on how long a time is reasonable may be found at 93 A.L.R.2d 627 (1964).

135. See p. 123 supra.
likely to reach agreement, but by the nature of the rule of law being applied. If we assume, for example, robbery and murder cases of equal complexity, we will want the maximum deliberation period in the murder case to be shorter than that in the robbery case: the likelihood of harm from an erroneous verdict is greater in proportion to the cost and expense of a new trial.

IV. Appellate Review

In dealing with supplementary instructions, the primary task of appellate courts is to set standards for the proper conduct of the trial judge faced with a hung jury. Additionally, in each particular case the court will have to decide if the trial judge committed reversible error. In deciding whether an error is harmless judges probably should not consider the nature of the case and the evidence, or at least not the way they do now. Courts are presently inclined to refuse reversal in cases where the evidence was overwhelmingly against the complaining party: any error in the instructions is harmless since the jury would have come out the same way without it.

Yet the fact that the jury had trouble reaching a verdict indicates that to them, at least, the case was not as open-and-shut as it appears to the reviewing judges. The judges are considering only the legally admissible and material evidence, while the jury, as it is permitted to, doubtless considered a range of other values not formally relevant to the case. Thus in a prosecution for violation of the liquor laws, evidence clear enough to convince a judge to a certainty might be disregarded by some jurors out of a distaste for the laws involved. If some jurors were led, by an improper supplemental instruction, to overcome their values and vote guilty, the appellate court should not regard the error as "harmless," for it has distorted the result and undercut the function of the jury's deliberations.