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# Cross-Examination of An Expert Witness.

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# CROSS-EXAMINATION OF AN EXPERT WITNESS

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## I. INTRODUCTION

The dangers of haphazard cross-examination without planning or preparation are accentuated when the witness is an expert. An expert is generally a person of high intelligence, experienced in expressing his ideas persuasively, and extensively more knowledgeable about his field than the cross-examiner. Typically, an expert's testimony is given substantial weight by a jury. There are, however, reasons why an expert can be the most vulnerable witness in

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a trial. Jurors do not easily associate themselves with expert witnesses. A well prepared lawyer, intent on doing so, can learn enough about the lawsuit's subject matter and an expert witness' expertise to neutralize such a witness' adverse posture. More importantly, the skilled cross-examiner can make the expert witness a critical source of information for the defense theories.

This article, while not exhaustive on the subject, will touch on some of the areas necessary to accomplish these goals. Initially, the Federal Rules of Evidence and procedure germane to the cross-examination of experts will be discussed. Included in the article is a hypothetical products liability fact situation to aid the reader in applying the concepts of cross-examination. Step by step, from pre-trial preparation to courtroom questioning, the hypothetical presents the successful posture for effectively confronting an expert witness. The intent of this article is to provide more of a practical example than a guide, but it is hoped that in the process the illustration presented will serve advocates as a starting point for their own cross-examination.

## II. EXPERT TESTIMONY UNDER THE FEDERAL RULES

### A. *Article VII of the Federal Rules of Evidence*

Pre-trial discovery relative to experts is more important than ever in light of recent changes in the Federal Rules of Evidence.[1] Article VII of the rules governs expert testimony and Rule 702 provides for when expert witnesses are permitted.[2] The broad language of the rules makes it difficult to catagorize who is, and who is not, an expert other than on a case by case basis; however, gen-

1. *See* FED. R. EVID. §§ 701-706. Article 7, Opinions and Expert Testimony, contains six rules. Rules 701, 702, 703, and 704 were not changed by Congress and were not the subject of floor debate. Rules 705 and 706 were the subjects of minor stylistic alterations: "judge" was changed to "court" in both 705 and 706, and "his" and "cases" were changed to "its" and "civil actions and proceedings," respectively, in rule 706. These rules were not the subject of floor debate, either, even though there was disagreement about the rules in subcommittee hearings. *See id.*

2. *See* FED. R. EVID. 702. The rule reads in pertinent part:

> TESTIMONY BY EXPERTS. If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education may testify thereto in the form of an opinion or otherwise.

*Id.*

erally an expert witness must possess knowledge, skill, experience, training, or education superior to a lay witness.[3]

Rule 705 does away with the common-law requirement that the underlying factual basis of an answer must be disclosed before an opinion is given.[4] Inferred from the language of the rule is a retreat from the prior practice of requiring a hypothetical question to preface the expert's testimony.[5] By not requiring the expert to recite the bases for his opinion, Rule 705 simplifies the questioning process by allowing the expert to focus immediately upon his opinion of the facts.[6] The departure from mandating strict hypotheticals not only breaks with the traditions of the common-law,[7] but

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3. *See, e.g.*, Young v. Illinois C.G.R. Co., 618 F.2d 332, 338 (5th Cir. 1980) (experts have experience outside grasp of average layman); Goldwater v. Ginzberg, 414 F.2d 324, 343-44 (2d Cir.) (expert is appropriate if jury benefits from technical assistance), *cert. denied*, 397 U.S. 978 (1970); Jenkins v. United States, 307 F.2d 637, 643 (D.C. Cir. 1962) (test is whether expert is likely to aid in search for truth). *See also* 2 R. RAY, LAW OF EVIDENCE, TEXAS PRACTICE § 1400 (2d ed. 1980) (comparison between Texas and Federal Rules).

4. *See* Bieghler v. Kleppe, 633 F.2d 531, 533 (9th Cir. 1980); FED. R. EVID. 705. Rule 705 reads in pertinent part:

> DISCLOSURE OF FACTS OR DATA UNDERLYING EXPERT OPINION. The expert may testify in terms of opinion or inference and give his reasons therefor without prior disclosure of the underlying facts or data, unless the court requires otherwise. The expert may in any event be required to disclose the underlying facts or data on cross-examination.

*Id.* As discussed in the notes of the Advisory Committee following Rule 705, the factual basis requirement as well as the hypothetical question rule was criticized greatly, precipitating their eventual deletion in the rule. *See generally* 2 J. WIGMORE, EVIDENCE § 686, at 962 (rev. 1979) (hypothetical is "misused by the clumsy and abused by the clever"); Ladd, *Expert Testimony*, 5 VAND. L. REV. 414, 426-27 (1952) (hypothetical encourages partisan bias, is complex, and time consuming).

5. *See* McElhaney, *Expert Witnesses and the Federal Rules of Evidence*, 28 MERCER L. REV. 463, 487 (1977). Unless the court requests, a hypothetical question is purely discretionary with counsel. *Id.* at 487; *see* Smith v. Ford Motor Co., 626 F.2d 784, 793-94 (10th Cir. 1980) (demise of hypothetical question rule). *Compare* Martin v. Arkansas Arts Center, 627 F.2d 876, 880 (8th Cir. 1980) (no necessity to disclose underlying facts on which opinion based) *with* Daniels v. Mathews, 567 F.2d 845, 848 n.3 (8th Cir. 1977) (administrative law judge must include the factual premise upon which expert bases opinion). At least one source maintains Federal Rule of Evidence 611 allows a judge to order an expert to give his factual basis. *See* S. SALTZBURG & K. REDDEN, FEDERAL RULES OF EVIDENCE MANUAL § 705 (2d ed. Supp. 1981).

6. *See* McElhaney, *Expert Witnesses and the Federal Rules of Evidence*, 28 MERCER L. REV. 463, 487 (1977). *See generally* 3 D. LOUISELL & C. MUELLER, FEDERAL EVIDENCE § 400 (1979).

7. Prior to the change in Rule 705 of the Federal Rules of Evidence, the posing of a hypothetical question was a requisite to direct examination of an expert. *See* Ladd, *Expert Testimony*, 5 VAND. L. REV. 414, 425 (1952). The exception to the rule was when the expert had personal knowledge of the event. *See* De Donato v. Wells, 41 S.W.2d 184, 187 (Mo.

also presents additional problems for cross-examination. Whereas the common-law procedure insured a chance to object to potentially inadmissible testimony,[8] litigators must now be prepared prior to testimony to second-guess opinions based upon unreliable information, or wait until cross-examination to discredit inadmissible testimony.[9]

Waiting to screen an expert's opinion for the first time when it is offered, however, can cause problems. In its most liberal sense, Rule 703 of the Federal Rules of Evidence[10] allows the lawyer and his expert to present to the jury evidence which might otherwise be inadmissible.[11] Ordinarily, material such as: evidence of other product failures not necessarily occurring under similar conditions; reports of government agencies such as the National Transportation Safety Board, OSHA, or the Consumer Product Safety Commission; government standards not necessarily applicable to one's particular client; or post-accident design changes or modifications may not be presented to the jury. To be admissible into evidence an expert witness' opinion must be shown to be based on scientific, technical, or other specialized knowlege, and that it be offered for the purposes of assisting the trier of fact to understand the evi-

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1931). The requirement often led to extremes, rendering the rule counterproductive. *See* Treadwell v. Nickel, 228 P. 25, 35 (Cal. 1924) (hypothetical posed was 83 pages long).

8. *See* 3 D. LOUISELL & C. MUELLER, FEDERAL EVIDENCE § 399 (1979).

9. The burden is placed upon opposing counsel to show the weakness of the opinion through cross-examination of the expert. Smith v. Ford Motor Co., 626 F.2d 784, 793 (10th Cir. 1980); *see* Polk v. Ford Motor Co., 529 F.2d 259, 271 (8th Cir.), *cert. denied*, 426 U.S. 907 (1976).

10. *See* FED. R. EVID. 703. The rule reads in pertinent part:

> BASES OF OPINION TESTIMONY BY EXPERTS. The facts or data in the particular case upon which an expert bases an opinion or inference may be those perceived by or made known to him at or before the hearing. If of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject, the facts or data need not be admissible in evidence.

*Id.*

11. *See, e.g.*, Bieghler v. Hoff, 633 F.2d 531, 533 (9th Cir. 1980) (rule 703 allows expert to base opinions on inadmissible facts); Frazier v. Continental Oil Co., 568 F.2d 387, 383 (5th Cir. 1978) (experts can base opinion upon materials inadmissible in evidence); Bryan v. John Bean Div. of FMC Corp., 566 F.2d 541, 545 (5th Cir. 1978) (construing Texas Law) (experts often rely on facts and data which are hearsay). The Advisory Committee's notes following Rule 703 delineate three sources from which an expert can base an opinion: (1) first hand observation; (2) listening to testimony of other witnesses at trial; and (3) presentation of data compiled by third parties. Two of these sources clearly are hearsay. *See* FED. R. EVID. 703 (Advisory Committee notes).

dence or determine a fact in issue.[12] Evidence which is inadmissible when presented by a layman, therefore, becomes available when offered by an expert so long as the facts and data are "of a type reasonably relied upon by experts in the particular field."[13]

## B. *Discovery Under Rule 26*

Many cases will present difficult and complex issues where expert testimony may be determinative.[14] Therefore, effective cross-examination of an expert witness is critical, requiring advance preparation on the part of counsel so that he can anticipate the particular approach his adversary's witness will take on the stand.[15] The proper time to find out about an expert's opinion is before trial. This may be accomplished by effective use of the broad federal discovery rules[16] which permit a party to obtain information concerning the identity of an expert and the substance of "facts known and opinions held" by him.[17]

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12. *See* FED. R. EVID. 702.

13. *See* FED. R. EVID. 703. *See generally* McElhaney, *Expert Witnesses and the Federal Rules of Evidence*, 28 MERCER L. REV. 463, 480-87 (1977).

14. The conclusiveness of expert testimony as to intricate facts particularly has been important in food and drug, patent, and condemnation cases. *See, e.g.*, United States v. Nyson Laboratories, Inc., 26 F.R.D. 159, 162 (E.D.N.Y. 1960) (food and drug); E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co., 24 F.R.D. 19, 20-21 (E.D.N.Y. 1952) (condemnation).

15. *See* McGlothlin, *Some Practical Problems in Proof of Economic, Scientific and Technical Facts*, 23 F.R.D. 467, 468 (1958).

16. *See* FED. R. CIV. P. 26 (general provision concerning discovery). The promulgation of the federal rules of discovery was a realization of the need to disclose the real points of dispute between the parties of a suit so an adequate factual basis could be made in preparation for trial. *See* Hickman v. Taylor, 329 U.S. 495, 500-01 (1947); Southeast Penn. Transp. Auth. v. Transit Cas. Co., 55 F.R.D. 553, 555 (E.D. Pa. 1972); Radio Corp. of America v. Select, 31 F. Supp. 516, 517 (S.D.N.Y. 1940). The discovery rules are to be given a broad and liberal treatment. *See* Hickman v. Taylor, 329 U.S. 495, 506 (1947). *See also* Sales, *Pretrial Discovery in Texas*, 31 SW. L.J. 1017, 1041-44 (1977) (analogous discussion of Texas discovery rules).

17. *See* FED. R. CIV. P. 26(b)(4). This rule deals with discovery of information acquired or developed by an expert in anticipation of litigation or trial. It does not address itself to the expert whose information or opinions arose from prior experiences not obtained in preparation for litigation, but which involved the witness as an observer or actor in the occurrence which is the subject matter of the lawsuit. The latter type of witness, one with personal knowledge, should be dealt with as an ordinary witness. *See* Norfin, Inc. v. International Business Mach. Corp. 74 F.R.D. 529, 532 (D.C. Colo. 1977); Breadlove v. Beech Aircraft Corp., 16 F.R. SERV. 2d 1049 (N.D. Miss. 1972); Rodriquez v. Hrinka, 16 F.R. SERV. 2d 592 (W.D. Pa. 1972).

Rule 26(b)(4) of the Federal Rules of Civil Procedure provides that certain information may be discovered if it falls within the purview of the rule. The rule deals separately with experts who are expected to be called to testify at trial and those witnesses who are not expected to testify, but have been retained or specially employed by a party.[18] To discover the data sought, a party may serve any other party with interrogatories requiring him to identify those he expects to call as expert witnesses at trial, state the subject matter on which the expert is expected to testify, the substance of the expert's facts and opinions, and a summary of the basis of those opinions.[19] Acts known or opinions held by an expert who is retained or specially employed in anticipation of litigation or preparation for trial,[20] but is *not* expected to be called as a witness at trial,[21] by contrast, are discoverable only upon a showing of exceptional circumstances.[22] Exceptional circumstances arise when it is impracticable to acquire facts and opinions on the subject matter by methods other than seeking discovery of information concern-

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18. *Compare* FED. R. CIV. P. 26(b)(4)(A) (discovery of expert testifying at trial) *with* FED. R. CIV. P. 26(b)(4)(B) (discovery of expert *not* testifying at trial).

19. *See* FED. R. CIV. P. 26(b)(4)(A). This information first must be sought from the party by interrogatory. If that is not successful the discovering party may, upon motion, request the court to order further discovery such as taking the deposition of the expert. *See* United States v. IBM Corp., 72 F.R.D. 78, 81 (S.D.N.Y. 1976); FED. R. CIV. P. 26(b)(4)(A)(ii). The court may impose conditions upon the discovery and require that the expert be compensated for his time. FED. R. CIV. P. 26(b)(4)(A)(ii). At least one court has indicated that unless the court orders further discovery, limitations on the scope of discovery remain if a party makes his expert available for deposition rather than responding to interrogatories submitted by the party seeking discovery. *See* Inspiration Consolidated Copper Co. v. Lumberman's Mutual Cas. Co., 60 F.R.D. 205, 210 (D.C.N.Y. 1973).

20. An expert who is simply a general employee of the party or who informally was consulted, even if he has special knowledge, skill, or training, may be deposed because he was not "specifically retained or employed." *See* Nemetz v. Aye, 63 F.R.D. 66, 68 (D.C. Pa. 1974); Gillman v. United States, 53 F.R.D. 316, 318 (S.D.N.Y. 1971).

21. If the expert's testimony is relevant and material, however, he may be called to testify by the opposing party even though the party who specially retained him did not expect to call him as a witness. *See* Nevels v. Ford Motor Co., 439 F.2d 251, 256-57 (5th Cir. 1971).

22. FED. R. CIV. P. 26(b)(4)(B). It is not clear whether the identity and location, as distinguished from "facts known and opinions held," of experts specially retained or employed for preparation for trial, but not to be called as witnesses, may be discovered. *Compare* Perry v. W.S. Darley & Co., 54 F.R.D. 278, 279-80 (E.D. Wis. 1971) (holding names of such experts not discoverable) *with* Sea Colony, Inc. v. Continental Ins. Co., 63 F.R.D. 113, 114 (D. Del. 1974) (holding that identity of expert and existence and location of information is discoverable).

ing the specially employed expert.[23]

Each party has the duty to seasonably supplement his response to requests for discovery.[24] Therefore, if the response was incorrect when made or, though correct when made, it is no longer true, a party must amend his prior response.[25] Additionally, a party must supplement any questions pertaining to the identity of expert witnesses who are expected to testify at trial and the subject matter and substance of their testimony.[26] Moreover, if a pretrial conference is held, each party at that time will be required to state all those individuals who he intends to call as witnesses at trial.[27]

## III. Pre-trial Preparation for Cross-examination of Expert Testimony

The permissive language of Article VII of the Federal Rules of Evidence anticipates rigorous discovery.[28] The litigator should take full advantage of depositions, interrogatories, and the research of investigators to gain even footing with the opposing expert. To effectively cross-examine an expert, counsel must become acutely familiar not only with the physical evidence at issue, but also the experiential qualifications of the witness.

Preparation should begin by consulting with members of the expert's profession and lawyers from the expert's community to determine whether he is a *bona fide* expert in his field or merely a

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23. Fed. R. Civ. P. 26(b)(4)(B); *see, e.g.*, Pearl Brewing Co. v. Jos. Schlitz Brewing Co., 415 F. Supp. 1122, 1137-39 (S.D. Tex. 1976) (exceptional circumstances when only plaintiff's witness knew what code symbols on computer program meant); Crockett v. Virginia Folding Box Co., 61 F.R.D. 312, 319-20 (E.D. Va. 1974) (plaintiff requires information peculiarly within knowledge of defendant's expert); Kozar v. Chesapeake & Ohio Ry., 320 F. Supp. 335, 373-75 (W.D. Mich. 1970) (no special circumstances when defendant had adequate access to experts in and out of employment).

24. Fed. R. Civ. P. 26(e)(1). (see Federal Rule of Civil Procedure 37 providing for sanctions for failure to supplement).

25. Fed. R. Civ. P. 26(e)(2).

26. Fed. R. Civ. P. 26(e)(1).

27. *See* Local Rules of the United States District Court for the Western District of Texas R. 26 (preparation and conduct of pretrial conference).

28. *See* Fed. R. Evid. 705 (advisory committee notes). "Rule 26(b)(4) of the Rules of Civil Procedure, as revised, provides for substantial discovery in [facts or data underlying expert opinion], obviating in large measure the obstacles which have been raised in some instances to discovery of findings underlying data, and even the identity of experts." *Id.; see* Fed. R. Civ. P. 26(b)(4). These obstacles include: the attorney-client privilege, privilege of work product, and the fairness doctrine. *See generally* Friedenthal, *Discovery and Use of an Adverse Party's Expert Information*, 14 Stan. L. Rev. 455, 455-88 (1962).

"professional witness." One must obtain copies of every book, article, treatise, thesis, dissertation, or speech written by the expert. In addition to testimony, transcripts from government agencies or other hearings where the expert has testified, as well as any other writings generated by the expert, and any patents or patent applications should also be included.[29] A careful search should be made of the expert's lawsuit experience, including deposition testimony or court appearances, by running his name through LEXIS or other computer legal aids and by checking the lawsuit index in the witness' home county and nearby metropolitan area. Some experts are not licensed in their chosen field, or their license has been suspended or revoked. A quick check with the governmental unit responsible for licensing a given field of experts generally will reveal the expert's licensing status.[30]

Once the pre-trial preparation and investigation has been completed a carefully worded motion in limine should call to the court's attention any matters which might bar the witness' testimony altogether.[31] At the least, the motion should form a basis for asking the trial court to require the testimony be presented in the form of a hypothetical question. Unfortunately, a request for a hypothetical question is not likely to fall on symphathetic ears in federal court because, as previously mentioned,[32] the hypothetical question is now discretionary with the court.[33] The probability ex-

29. A request for a patent search should be sent to: Commissioner of Patents and Trademarks, Patent and Trademark Office, 2021 Jefferson Davis Highway, Arlington, Virginia 20231.

30. If the investigation reveals the proposed expert is not licensed, another individual should be contracted since the lack of a license could affect the expert's credibility before the jury as well as his status as a "qualified" expert before the court.

31. The trial court judge has broad discretion in deciding who qualifies as an expert. *See, e.g.*, United States v. Huber, 603 F.2d 387, 399 (2d Cir.) (trial judge held economics professor could not testify as expert in both business and psychoanalysis), *cert. denied*, 100 S. Ct. 1312 (1980); Perkins v. Volkswagen of America, Inc., 596 F.2d 681, 682 (5th Cir. 1979) (trial judge's opinion on automotive expert not disturbed unless manifestly erroneous); United States v. King, 532 F.2d 505, 509 (5th Cir.), (trial judge determined home study course in handwriting analysis does not make witness an expert examiner of questioned documents), *cert. denied*, 429 U.S. 960 (1976); Keystone Plastics, Inc. v. C & P Plastics, Inc., 506 F.2d 960, 966 (5th Cir. 1975) (rejection of chemical engineering professor as expert in plastic production equipment within trial judge's discretion).

32. See discussion of Federal Rules of Evidence, notes 4-8 and accompanying text *supra*.

33. *See* Twin City Plaza, Inc. v. Central Surety & Ins. Corp., 409 F.2d 1195, 1201 (8th Cir. 1969). The rules contained in Article VII "are obviously designed to remove stereo-

ists, however, that a court would impose a hypothetical question requirement when upon full discovery, a good faith motion demonstrated that the opinion about to be offered by the expert ultimately would be ruled inadmissible.[34] Finally, should both the requests for a motion in limine and in lieu thereof, a hypothetical question, prove unsuccessful, an alternative solution is to ask for a *voir dire* examination of the expert witness outside of the presence of the jury. Such a tactic will often uncover inadmissible and damaging segments of the expert's presentation.

Consultation with other experts in the same field is essential for effective cross-examination. Although the desirability of presenting your own witness may be limited, much can be learned about the complexities of a science by discussing the facts of the case with someone who is qualified in that field. Furthermore, the psychological effect of an "expert" witness is greatly deflated in the eyes of the jury when the examining attorney appears equally conversant in the area of testimony.[35] Additionally, by using books or treatises written by the expert or his colleagues which conflict with his testimony at trial, the cross-examiner can further erode the professional image of the expert before the panel.[36] Therefore, if you do not plan to call your own expert for affirmative testimony, a consultation expert will provide a valuable exercise in cross-examination techniques and allow the examiner an opportunity to familarize himself with the technical terms and concepts.[37]

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typed, long, belabored and nonsensical hypothetical questions from the arena of trial," thus, it is discretionary with the court whether they are required. *Id.* at 1201. 3 J. WEINSTEIN & M. BURGER, WEINSTEIN'S EVIDENCE § 705[01] (1978). *See generally* FED. R. EVID. §§ 701-706 (article VII).

34. *See* McElhaney, *Expert Witnesses and the Federal Rules of Evidence*, 28 MERCER L. REV. 463, 489 (1977).

35. *See* Rodgers, *Cross-examination of the Expert Witness*, 21 DEF. L.J. 491, 496 (1972).

36. *See* R. FIGG, R. MCCULLOUGH & J. UNDERWOOD, CIVIL TRIAL MANUAL 257 (1974). *See also* Comment, *Use and Introduction of Exact Science Books and Learned Treatises*, 38 MISS. L.J. 296, 302-20 (1967).

37. *See* Philo & Atkinson, *Products Liability the Expert Witness*, 14 TRIAL 37, 38 (Nov. 1978). The authors point out that not only should the lawyer become acquainted with the expert's knowledge, but the lawyer also must educate the expert as to the legal aspects of his testimony. *Id.* at 38.

## IV. JONES v. FORD OUTBOARD CORP.

### A. *Introduction to the Hypothetical Case*

Although the procedural rules and concepts may appear confusing when discussed in the abstract, they can be put to proficuous use when cross-examining an expert. The most intelligible method to demonstrate what the Federal Rules of Evidence do to the examination of experts and to illustrate the critical nature of advance preparation is to test the rules against a set of facts. The following discussion involves a hypothetical case of a defective product, focusing on the cross-examination of the plaintiff's expert witness.

### B. *The Facts of the Hypothetical Case*

A state court action is brought against Gem Craft Boat Company, Inc., Brown Marine Supply, and Ford Outboard Corporation, by Fred Jones, who lost his left leg above his knee and his right leg below the knee as a result of a water skiing accident. The accident occurred when the boat pulling Jones hit the wake of another boat that had crossed its path. This caused the newly purchased fifteen-foot tri-hull runabout boat to turn sharply to the right, throwing the operator, Johnny Bob Boatwright, and his two passengers into the water. The unmanned boat continued on successively smaller circles until it ran down Jones and inflicted his injuries. The runaway boat finally came to rest only after being rammed by another boat.

Fred Jones brought suit alleging that the defendants were strictly liable under article 402A of the Restatement (Second) of Torts, for the design, manufacture, and sale of a dangerously defective product.[38] Eventually, a "Mary Carter Agreement"[39] was

38. *See* RESTATEMENT (SECOND) OF TORTS § 402A (1965). In instituting a suit against a party based upon section 402A the party bringing suit must establish that: (1) the product was in a defective condition when it left control of the supplier; (2) it was unreasonably dangerous to the user; (3) the defect caused the injury; and (4) the product reached the injured party without substantial change. *Id.* Texas formally adopted section 402A in 1967 in the companion cases of *Shamrock Fuel & Oil Sales, Inc. v. Tunks*, 416 S.W.2d 779, 785-86 (Tex. 1967) and *McKisson v. Sales Affiliates, Inc.*, 416 S.W.2d 787, 789 (Tex. 1967).

39. "Mary Carter Agreements" are named after *Booth v. Mary Carter Paint Co.*, 202 So. 2d 8, 11 (Fla. Dist. Ct. App. 1967). The first case to recognize such an arrangement arose when a settling defendant agreed to remain a party in the trial for the benefit of the plaintiff and retain a financial interest in the plaintiff's recovery. *Id.* at 11. Simply stated, a co-tortfeasor contractually agrees to aid the plaintiff in his suit against the remaining

entered into between Jones and Brown Marine Supply, the boat dealer, and a nonsuit was taken against the uninsured boat manufacturer, Gem Craft Boat Company, Inc. The case was then removed to federal court. Plaintiff amended his petition for trial alleging that Ford Outboard Corporation designed, manufactured, and sold an outboard motor with defective throttle controls because they failed to include an automatic engine "kill-switch" or safety shut-off apparatus on their motor.[40] Plaintiff alleged such a device would have stopped the motor after the occupants of the boat were ejected. Plaintiff further asserted that the motor should have been accompanied with appropriate warnings and instructions alerting the plaintiff that the motor should never be used without an appropriate kill-switch.

Early in the case, the plaintiff hired a teaching mechanical engineer, Dr. Robert Feelgood, to investigate the accident and to design and build a proto-type model seat-installed kill-switch. The device was prepared, made into a model, and eventually rigged on a rented boat for actual testing. Although kill-switches of the lanyard type[41] had been on the market since 1974, Dr. Feelgood believed these were only about 95% effective and were not often purchased because they were a costly option. Moreover, these kill switches were inferior to a *standard* item that would require no direct operator involvement other than consumer education of how the "kill-switch" worked. Dr. Feelgood's device, therefore, was designed so that the engine ignition switch would deactivate whenever the pressure on the driver's seat was removed. His proposed system also included the installation of an override switch so that the operator could manually keep the engine running while stand-

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tortfeasor in consideration for recovering a portion of the plaintiff's judgment. *Id.* at 10-11. Jurisdictions have adopted divergent positions on the legitimacy of such a practice.

40. Kill switches are simple mechanical devices which are designed to disengage or "kill" the boat's engine should the pilot of the vessel lose control. Most varieties attach to a part of the boat operator's clothes or body. If the operator falls out of the boat a cord attached to the engine's throttle will pull a pin, disengaging power to the propeller. *See* Bailey v. Boatland of Houston, Inc., 585 S.W.2d 807, 807-09 (Tex. Civ. App.—Houston [1st Dist.]), *rev'd*, 609 S.W.2d 743 (Tex. 1980).

41. When using a lanyard type kill switch the boat operator clips a string, or lanyard, to the belt loop of his pants; the other end of the lanyard is attached to the control box beside the driver's seat. When the driver moves a few feet from the boat seat, the string will trip an ignition switch which kills the motor. *See* Boatland of Houston Inc. v. Bailey, 609 S.W.2d 743, 746-47 (Tex. 1980).

ing up should he desire to do so. The only consumer education required for such a device was to alert the operator that leaving his seat would kill the engine.

The defense planned to show that a kill-switch device, if necessary, was available as a dealer option and that the major issue in the case was what had caused the boat operator to lose his stability in the boat and fall overboard thereby losing control of the boat. In other words, the defense proposed the design of the boat was the culprit and not the design or manufacture of the engine and throttle. The usual allegations of negligence were brought against the defendant and contributory negligence was alleged against the boat operator.

The defense's objective during cross-examination was to combat the predicted feeling of the jurors that a device such as Dr. Feelgood's definitely has its place, and that this plaintiff's injury could have been prevented if a kill-switch had been in use. The defendant engine manufacturer originally planned to call a staff engineer from its national headquarters to testify that Ford Outboard had considered installing kill-switches, that a seat-cushion type was one of the many considered, and that the concept of kill-switches on a family type boat is incompatible with other operational requirements. The engineer was prepared to testify that the seat cushion kill-switch was not more effective than the lanyard type kill-switch, and, in fact, that it introduced a new hazard by inadvertently killing the engine at inopportune times. As trial preparation continued, however, it appeared that something more was needed than an "in-house expert." Outside consultation was arranged for the primary purpose of preparing a thorough cross-examination of Dr. Feelgood, and an appropriate challenge to his seat-activated kill-switch.

### C. *Pre-Trial Preparation of the Hypothetical Cross-examination*

Tom Swift, who had testified in similar actions was contacted as an expert who had already researched the viability of kill switches.[42] Although he had testified on behalf of the plaintiff in the *Bai-*

42. *Cf. id.* at 744-45. In *Bailey* a widow and her children sued for wrongful death allegedly produced by a defectively designed bass boat. Samuel Bailey died after being thrown from the boat when it struck a submerged tree stump. Bailey's fatal injury was inflicted by the propeller, although it was at issue whether he was struck when first thrown from the

*ley* case,[43] Ford believed that Swift had a superior overview and could be beneficial to the defense by pointing out the deficiencies of the seat activated kill-switch. After a thorough review of a video tape deposition of Dr. Feelgood demonstrating his mock-up, and after a substantial review of Dr. Feelgood's actual testing of his device in a rented boat, Swift and Ford's attorney commenced preparation for the cross-examination of Dr. Feelgood.

The method for preparing this type of cross-examination obviously requires a careful road map, incorporating the use of an appropriate number of engineering concepts. The cross-examiner should consider all of the possible factors which could have caused the plaintiff's injury. Several scenarios of the accident should be reconstructed to determine which products, or negligent acts, contributed as causal effects to the mishap. By considering all possible circumstances the cross-examiner can better prepare his questions for the expert. The expert witness, more than likely, is prepared to discuss only one version of how the incident at issue occurred; however, by considering all of the possibilities the cross examiner can plant a seed of doubt in the minds of both the expert and the jury.

In the hypothetical, for instance, several design features inherent in the boat appeared to cause the operator to position himself on the back of the seat for better visibility. For example, the boat was constructed so that passengers could sit in front of the windshield, blocking the operator's view, and the windshield was positioned so that it obstructed vision. The operator's seat was constructed with a smooth padded surface at the top of its back almost inviting the operator to use it as a seat. Additionally, the floor board of the boat did not provide adequate space for the positioning of the operator's feet when the operator was seated properly. The assumption that most operators will sit either on the back of the operator's seat or on the side of the boat when pulling water-skiers,

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boat or after it turned sharply and ran back over him. Among other design deficiencies, plaintiffs alleged the boat was a defective product because the motor failed to turn off automatically when Bailey was thrown from the boat. Appeal to the Texas Supreme Court centered on whether evidence concerning the availability of kill switches was admissible as a state of the art exception to strict liability. The court held in favor of the defendant boat manufacturer and allowed state of the art evidence. *See id.* at 745, 748-49; 12 ST. MARY'S L.J. 778, 779-98 (1980).

43. *See* Boatland of Houston, Inc. v. Bailey, 609 S.W. 2d 743, 747 (Tex. 1980).

combined with the attendant design problems, created a dangerous situation. Swift's expert analysis, therefore, suggested that the dismissed defendant boat manufacturer was at least partially liable because of faulty design. It was believed the jury could reason that the accident was the result of the operator losing control of the boat, and that the continued act of circling could have easily been prevented by existing kill-switch designs. Perhaps the culprit could more properly be the dealer for failing to recommend the optional kill-switch, or the boat manufacturer for its bad design. Obviously the engine manufacturer would not know the various combinations of boats which his motor might propel, since the outboard capability made it suitable for house boats, ski-boats, barges, or fishing purposes.

### D. *Structuring the Hypothetical Cross-examination*

Although there is a great deal of latitude allowed in cross-examination, there are some practical considerations regarding the order of presentation. There is one legal limitation on the scope of cross-examination as seen in Federal Rules of Evidence 611(b), which provides: "[c]ross-examination should be limited to the subject matter of the direct examination and matters affecting the credibility of the witness. The Court may, in the exercise of discretion permit inquiry into additional matters as if on direct examination."[44]

The rationale for this limitation is not an easy one to defend.[45] If

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44. *See* FED. R. EVID. 611(b).

45. *See* E. MCCLEARY, MCCORMICK ON EVIDENCE § 27, at 55 (2d ed. 1972). There exists a long standing argument between proponents of the "wide-open rule" of cross-examination who insist any question should be allowed on cross-examination and those advocates of restricted questioning limited to the boundaries of direct. *Id.* at 54-55. Wigmore, after discussing both wide-open and restrictive approaches, advocated wide-open questioning. *See* 6 J. WIGMORE, EVIDENCE §§ 1887, 1888 (rev. 1976). In *Stimpson*, however, Justice Story maintained that any questions encompassing new matters had no place in a cross-examination. *See* Philadelphia & Trenton R. Co. v. Stimpson, 39 U.S. (14 Pet.) 448, 461 (1840). The Federal Rules of Evidence assume a more neutral posture directing the cross-examiner to stay within the general confines of the direct examination, but also empowering the court to allow inquiries into new areas. *See* FED. R. EVID. 611(b); E. MCCLEARY, MCCORMICK ON EVIDENCE §24, 54 n.86 (2d ed. 1972). Texas, as well as eleven other jurisdictions, favors the traditional wide-open rule permitting cross-examination to extend to any area relevant to the case. *See, e.g.*, Wentworth v. Crawford, 11 Tex. 127, 132 (1853) (any question pertinent to issue is allowable cross-exam); Robertson v. Southwestern Bell Tel. Co., 403 S.W.2d 459, 468 (Tex. Civ. App.—1966, no writ) (wide range of cross-exam on prior ailments allowed);

your opponent has carefully selected portions of his direct examination, while withholding others not advantageous to his case, cross-examining counsel is forced to ask the court to permit inquiry into the additional matters not presented as "if on direct examination."[46] The pitfalls are obvious. Once you call a witness for the purpose of direct examination, you vouch for his credibility as to that area of inquiry. As an available alternative, one commentator has suggested in this period of consternation, you let the judge retain the witness as a witness of the court and request that the judge permit both plaintiff and defendant to cross-examine the expert in the unexplored area of inquiry.[47] Most experienced attorneys agree that it would be inconceivable to pass up cross-examination of an expert witness altogether, or even abbreviate the exam, unless there were only one or two power-packed points to be gained and known well in advance.[48] Remember, one should never offer to concede the qualifications of an expert witness. If such a concession is offered and accepted, you may be precluded from cross-examination on certain aspects of the expert's qualifications, as well as being shortstopped in efforts to limit his field of expertise.[49]

The appearance of success in cross-examination is essential when questioning experts. Experience suggests that a favorable impression can be made on the jury without, in fact, making any major substantive headway.[50] Jurors will form an impression of oral

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Pride v. Pride, 318 S.W.2d 715, 719 (Tex. Civ. App.—Dallas 1958, no writ) (cross-examination should not be limited). *See generally* R. RAY, LAW OF EVIDENCE, TEXAS PRACTICE § 600 (3d ed. 1980) (discussion of wide-open rule as followed in Texas).

46. *See* J. JEANS, TRIAL ADVOCACY §13.56 (1975). "If a witness is called to tell the truth, the whole truth and nothing but the truth it seems incongruous to relate a portion of direct examination and then have further disclosure withheld because the endorsing party had not found it to his advantage to explore other areas of inquiry." *Id.* at 348.

47. *Id.* at 349; *see* FED. R. EVID. 706. The Federal Rules of Evidence allow the court to appoint its own expert under rule 706. The rule reads in pertinent part: "[The expert called by the court] shall be subject to cross-examination by each party, including a party calling him as a witness." *See* FED. R. EVID. 706(a).

48. *See, e.g.*, A. CORNELIUS, CROSS-EXAMINATION OF WITNESSES 191 (1929) (always test witness to see if he is truly "expert"); 2 I. GOLDSTEIN & F. LANE, GOLDSTEIN TRIAL TECHNIQUE § 14.24 (2d ed. 1969) (only the unexperienced should not cross-examine an expert); J. JEANS, TRIAL ADVOCACY § 13.40 (1975) (never pass up or abbreviate expert cross-examination).

49. *See* 2 I. GOLDSTEIN & F. LANE, GOLDSTEIN TRIAL TECHNIQUE § 14.08-.09 (2d ed. 1969); Busch, *Cross-examination of the Non-medical Expert*, 4 DEF. L.J. 13, 13-15 (1958).

50. *See* J. JEANS, TRIAL ADVOCACY § 13.40 (1975).

cross-examination that may differ substantially from conclusions that can be drawn from a more detailed logical study of the transcribed record. There is always the risk of offending a jury with an inappropriately designed "two-fisted" cross-examination of some witnesses. Jurors, however, know that an expert is important, even the courts generally treat them so, and jurors expect a lawyer to treat the expert with special scrutinizing attention.

In our hypothetical case, pre-trial discovery revealed that Dr. Feelgood was limited in his knowledge of boating safety. Cross-examination of him, therefore, began as follows:

> Q. Doctor, have you written any articles on either *hull design or engine design of boats,* or any articles on the overall subject of boating safety, or anything remotely related to this?
> A. No, sir, I have not.
> Q. In all of the courses that you have taken in either undergraduate school, your masters efforts, or your doctoral efforts, have any of them dealt with boating design, engine design, boating safety, boating accident prevention, or anything of a related nature?
> A. No, sir.
> Q. Have you ever participated in any tests or experiments regarding improved boating safety or regulations, improved manufacturing techniques of either hull design or engine design, or any other tests or experiments remotely related to these areas, other than the one that you were hired to do in this case preparatory to being a witness in the lawsuit?
> A. No, I have not.
> Q. Doctor, I have here the 1980 Membership Roster of the American Boat and Yacht Council, an organization composed of members of the boating industry, our government, and the boating public, indicating that the organization sets testing standards for the boating industry of America and certifies that the testing criteria be known to and incorporated for use in the boating industry. Can you please point to this Membership Roster where your name is located?
> A. I'm not in the organization.
> Q. Have you consulted with anyone in the Coast Guard regarding the ongoing tests regarding boating safety such as the Wayle Laboratory testing now being done in Alabama?
> A. No.
> Q. Then, doctor, please tell us how much you are charging for this—your apparent first effort in this field.
> A. $100.00 an hour.

A natural sequel to this line of cross-examination is to move

swiftly into minimizing the witness' supporting factual data.[51] In our case, Dr. Feelgood had designed his own seat-activated kill-switch, rather than relying on data from government or private studies, or literature and experiments from other sources. The thrust of his testimony clearly was based on his own design plus his interpretation of what made the motor in question a dangerously defective product. Under these facts, the cross-examination strategy is to show that the engine manufacturer was not responsible for omitting either this new kill-switch device, or any of the others that had been on the market since 1974. The cross-examiner must convince the jurors that the real issue was not whether a kill-switch would have prevented the accident, but more basically, what was the precipitating cause of the operator losing his stability. The defendant wanted to demonstrate, therefore, that the kill-switch design advanced by plaintiff's expert was simply a "band-aid" for a bad *boat* design, with inherent risks of its own.[52]

The examination went as follows:

Q. Doctor, isn't it true, that a boat—like an auto—can have certain forces affecting its steering—much like a misalignment can affect an auto's steering?

A. Yes, load distribution, engine trim/tilt position, trim tab adjustment on the engine, engine mounting, boat speed, and wave action or the action of submerged objects can all affect a boat's steering.

Q. Well, then isn't it also true that as a result of any one of these forces you just named, that a boat's steering can turn sharply left or right—on its own—unless restrained by the boat operator?

A. Yes, that is true.

Q. Focusing just a minute on the engine manufacturing process, if the engine trim/tilt, the engine trim tab and the engine mounts that

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51. Not only may an expert's effectiveness be minimized by revealing his lack of qualification, the Federal Rules of Evidence also allow for the impeachment of an expert through the use of "learned treatises." *See* FED. R. EVID. 803(18). As an exception to the hearsay rule, writings by other experts in the field can be used by an examiner to confront the expert witness so long as the court recognizes the treatise as an authoritative work. *See* Reilly v. Pincus, 338 U.S. 269, 275 (1949). Under rule 803(18) the writings can be used to impeach, or can be affirmatively admitted. If used for impeachment, the expert must be confronted with the treatise before it is admissible. *See* FED. R. EVID. 803(18) (advisory committee notes). When using treatises the cross-examiner's goal should be either to show the witness' own conclusions are inconsistent with either each other, with testimony of other experts, or with conclusions of experts in recognized publications.

52. *See* Donaher, Piehler, Twerski & Weinstein, *The Technological Expert in Products Liability Litigtion*, 52 TEXAS L. REV. 1303, 1307 (1974).

you just made reference to, are not defectively manufactured, then those other forces you just named are acting on their own and are not the creation or responsibility of the engine manufacturer—Ford Outboard—in this case?

A. True.

Q. Now, doctor, in reference to the video demonstration you just provided for the jury of you testing your seat sensor "kill-switch," I noticed in your testing that your rented boat continued in a straight line after its operator abandoned the steering and fell over the side. Now, the fact that the boat continued in a straight line after the operator left the helm, that is not what always occurs, is it?

A. No, sir, it is not.

Q. In fact, as we know from the facts in this case, the subject boat made a *sudden* and *sharp* turn to the right, resulting in all of its occupants being thrown from the boat—correct?

A. Yes, that is what occurred.

Q. Isn't the reason that this boat turned suddenly and sharply to the right, is because of an interaction of some of the forces that you just listed for us a few moments ago?

A. Yes.

Q. Well, then, doctor, we have already agreed that with the exception of the engine trim/tilt control, the engine trim tab itself, and the engine mounts, that the engine manufacturer—Ford Outboard—has played no part in the circumstances of this operator losing control of the boat—correct?

A. Well, I guess you could say that.

Q. Well, just so the jury will understand, you're not contending that any three of the items just mentioned—those being the engine trim/tilt control, the engine trim tab itself, or the engine mounts—were defectively manufactured in any way—are you?

A. No.

Q. So, what we're left with—is you're urging that a seat-installed "kill-switch" device should have been provided by the engine manufacturer—to stop the engine in the event of operator loss of control.

A. That is true.

Q. But you will admit that "kill-switch" devices will not prevent some of the accidents that occur as a result of loss of operator control. For example, the operator himself, or any of the boat's occupants, can be injured before ever leaving the boat—in a lost control situation—or struck by parts of the boat itself as the body initially flies out of the boat.

A. Yes, I will concede that.

Q. To the extent that a "kill-switch" can be beneficial, the lanyard type "kill-switches" that have been on the market since 1974, are as

good as your own in an accident such as the one made the basis of this lawsuit. Isn't that true? In other words, once this operator lost control and fell overboard, a lanyard type switch would have prevented the subject boat from circling?
A. Probably so.
Q. Well, then doctor, the real problem is really a boat design problem that allows the operator to lose his stability of position in the boat in the first place, thereby resulting in a loss of control of the boat. Correct?
A. Well, that's your characterization.
Q. But isn't that really what we're talking about?
A. I suppose so.
Q. Well, you're certainly not telling this jury, that Ford Outboard—the engine manufacturer—had anything to do with the actual boat design itself—are you?
A. No, I am not.

If discovery had revealed, however, that the expert did not plan to offer his own prototype of a kill-switch additional research would have been necessary. When a prototype or experiment is not offered into evidence by the plaintiff's expert, his opinion will be based upon general testing done by other practitioners and specialists in his field. Thus, investigation would be imperative to catalogue and review all available outside testing data and demonstrations which might form a part of the witness' conclusions and opinions. Such thorough preparation will assist the attorney in gaining an advantage over the opposition's antagonistic expert witness.

### E. *Developing the Defendant's Case Through Cross-Examination*

Having canvassed the field of the witness' direct testimony, the cross-examiner's next course of inquiry should be to develop considerations omitted from the expert's primary opinion given on direct examination. For example, in a design defect case in Texas, various factors involving utility and risk must be weighed and balanced by the trier of fact to determine adequacy of design.[53]

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53. *See, e.g.*, Hagans v. Oliver Mach. Co., 576 F.2d 97, 99 (5th Cir. 1978) (applying Texas law) (product's danger must outweigh utility to be defective); Weakly v. Fischbach & Moore, Inc., 515 F.2d 1260, 1267 (5th Cir. 1975) (applying Texas law) (product need not be absolutely safe, only reasonably safe); Borel v. Fibreboard Paper Prod. Inc., 493 F.2d 1076,

Returning to our hypothetical set of facts, the following illustrates appropriately raised points of inquiry:

> Q. Doctor, you will agree that the greater the number of systems' interfaces and the overall general complexity of any system—the greater the chance you have for a system's operational failure.
> A. I will agree with that.
> Q. Isn't it true that your seat sensor device interfaces with inhibit switches, warning lights, throttle controls, engine power, engine shut-down, seat sensors (capacitors) and your switch's own power supply network? And, further, that each has to work together in an integrated system?
> A. Yes, I suppose so.
> Q. Further, that your device involves different boat manufacturers, different dealer or operator imposed modifications, and retrofitting on existing rigs—a vast complexity being added that now demands the necessity of reliability?
> A. True.
> Q. For example, aren't the presently available lanyard type "kill-switches" usually verified as being operational by the boat operator himself, once installed?
> A. Well, if he takes the time to look it over and verify that it is functional.

Thus, by questioning the expert on all of the various products and mechanical devices which work in conjunction with the kill-switch the cross-examiner has expanded the knowledge of the jury. The expert's proposed "solution" is no longer as simple as he expounded on direct examination. Further, the cross-examiner has gained valuable "psychological" points with the jury by placing the expert in seeming agreement with his questions.

### F. *The use of Hypothetical Questions in the Cross-examination of the Expert.*

Although Rule 705 has eliminated direct hypothetical questions,[54] the use of the hypothetical is still available as a viable tool for cross-examination.[55] Those points which are factually appropri-

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1087 (5th Cir. 1973) (applying Texas law) (balance between danger and utility), *cert. denied*, 419 U.S. 869 (1974); Turner v. General Motors Corp., 584 S.W.2d 844, 851 (Tex. 1979) (to be defective risk of harm must outweigh utility).

54. *See* FED. R. EVID. 705 (Advisory Committee notes).

55. *E.g.*, Bird Provision Co. v. Owens Country Sausage, Inc., 379 F. Supp. 744, 747

ate and enhance your position can, and should be, developed with the adverse expert; the hypothetical remains the best vehicle for such development. For instance, one should attempt to demonstrate through the opposition's expert possible dangers in the design alternative advocated by that expert:

> Q. Doctor, I want you to assume for a minute that we have a new boat owner-operator, just as in the case at bar, who is boating on one of our local lakes when one of his passengers hollers "watch out." Further, that the boat operator stands up to look for the danger, and as he does so, your pressure sensitive "kill-switch" takes over and shuts his power down, at a time when he realizes he needs additional power for control and for the ability to get out of the way of an oncoming boat.
> A. Well, my device allows for a three to five second lag time in such a situation, or the operator has available for his use an override switch which he can depress with his hand to prevent the "kill-switch" from interrupting the power.
> Q. Well, since we have a new boat owner—his first day out—with no real experience in operating his boat, don't you imagine that he would be hard pressed to recall that he had an override switch or to know that he could sit back down within a three to five second period to avoid loss of power?
> A. I don't think that would be a problem.
> Q. Well, you would agree that the longer that it takes for the boat operator in this situation to lose power, the more likely he would be unable to extricate himself from the impending danger, which calls for the use of more power—rather than a loss of it.
> A. The lag time can be adjusted.
> Q. Well you are, hypothetically speaking, dealing with an emergency that requires more lag time than less, won't you agree with that?
> A. Yes.
> Q. Well, let's turn to another hypothetical situation. Let's assume that this new boat owner is sitting on the back of his seat—as was the actual case here—that he hits a wave as the operator did in our case at bar, and goes overboard. The boat begins to circle—as it did in our case—aren't we now talking about an emergency dictating that the boat lose its power as quickly as possible?

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(N.D. Tex. 1974); *accord,* Timsah v. General Motors Corp., 591 P.2d 154, 164 (Kan. 1979) (hypothetical questions are allowable on cross-examination). *See* 3 I. GOLDSTEIN & F. LANE, GOLDSTEIN TRIAL TECHNIQUE § 18.40 (2d ed. 1969).

A. Yes, we are.
Q. Aren't these two hypothetical incidents calling for completely different time-lag considerations in the activation of your device?
A. I don't see that as the case.
Q. I'll ask you to assume another hypothetical instance, the case of a boat operator who wants to sit up on the back of his seat—as was the case here—or on the side of the boat, for better vision, and decides to put an ice chest or other weight on his sensor seat to prevent loss of power while he is not sitting down—much like the way people get around the use of seat belts in an automobile. Further, that the operator loses his stability as a result of not being in his seat, falls overboard and the boat either goes on straight ahead until it rams into something, or goes into a circling turn as occurred in this case.
A. Well, honestly, the use of this device requires some consumer education.
Q. When you say consumer education, aren't you applying a "double standard"?
A. What do you mean?
Q. Well, wouldn't you agree that consumer education would have kept the operator down firmly in his seat in the first place, as the placard on the dash of his boat stated he should, or that the operator—as a new owner—would know as an educated consumer, that one of the already available "kill-switch" devices should be installed on his boat by the dealer, and that it wouldn't need to be standard equipment as you suggest in this case, or, further, that a propsective buyer—with consumer education—would know that he should buy a boat design that would alleviate the problem of operator loss of stability that we have been talking about throughout your examination.

When pointing out the dangers of the adverse expert's proposed alternative design do not neglect the necessary element of utility. In the above questions the cross-examiner effectively probed the potential dangers and deficiencies of the expert's prototype while also showing the device's questionable utility in a small pleasure craft.

### G. *Questioning the Non-responsive Expert*

As is apparent from most of the sample questions and answers, the doctor responded within the framework of the interrogation. This, however, is not always the case. The effectiveness of a cross-examination depends greatly upon the perceptiveness of the examiner in interpreting the mood and reaction of the witness. A cross-

examiner must exercise a tight rein on his form of questioning so that a witness is not free to make lengthy explanations which are beyond the control of the examining lawyer. It is often impractical or impossible to state an objection before a witness gives his answer, and it may become necessary to move to strike certain objectionable answers. The objection that an answer is non-responsive is designed to protect the cross-examiner and is a more appropriate way of avoiding damaging answers than a motion to strike. This objection, which argues the witness is being non-responsive, is available only to the lawyer asking the question and not the opposition.

Another tactic would be to seek an agreement early in the examination binding the expert to give "yes" or "no" answers. The cross-examiner should not hesitate to seek an early concession from the expert that his opinion includes some subjective judgment. In any discipline in which judgment is involved, always ask the expert if he could be wrong, or if another interpretation is not equally plausible.

When seeking concessions, consider using phraseology such as: "As a *fair* man—could you agree. . . ." In our example, Dr. Feelgood appeared wed to his own experimental device. The cross-examiner's goal, therefore, was not so much to discredit the expert's opinions as it was to shift his complaints of a defect to the design of the boat itself, rather than to the engine or the throttle. In pursuit of that goal the cross-examiner demonstrated that a kill-switch was already available as an option to be purchased by the operator from the dealer, and further that the risks of the prototype device far outweighed its utility. In short, the cross-examination shifted the attention of the jury away from the defendant and towards another unknown variable outside the testimony of the expert.

## V. CONCLUSION

Article VII of the Federal Rules of Evidence on the cross-examination of expert witnesses is an addition to, not a substitution for, other Rules of Evidence.[56] An expert can be impeached, contra-

56. *See* FED. R. EVID. §§ 401-1004; McElhaney, *Expert Witnesses and the Federal Rules of Evidence*, 28 MERCER L. REV. 463, 463 (1977) (federal rules do not stand alone, rather they are a system in addition to common-law).

dicted, and challenged just like any other witness.[57] Rule 704 allows an expert to embrace an ultimate issue of fact with his testimony, regardless of whether he has any first hand information.[58] But the status of being a professional is no shield if the expert has made a prior inconsistent statement, is guilty of bias or prejudice, or harbors a prior conviction.[59] A competent lawyer, intent on doing a good job, can be as effective in cross-examination of experts as with any other witness. One can learn enough about the witness' subject matter instinctively to take advantage of inconsistencies and distortions. Do not be drawn into a battle with the expert on his own ground. Your field is the courtroom; hold on to your advantage.

57. *See* G. LILY, AN INTRODUCTION TO THE LAW OF EVIDENCE § 106, at 399 (1978).

58. *See* FED. R. EVID. 704. The rule reads in pertinent part: "Testimony in the form of an opinion or inference otherwise admissible is not objectionable because it embraces an ultimate issue to be decided by the trier of fact." *Id.*

59. *See* G. LILY, AN INTRODUCTION TO THE LAW OF EVIDENCE § 106, at 399 (1978).