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JoAnne A. Epps

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CLARIFYING THE MEANING OF FEDERAL RULE OF EVIDENCE 703†

JoAnne A. Epps*

I. Introduction

Litigators continue to rely heavily on expert witnesses.¹ Advertisements in a recent edition of the *ABA Journal* offered expert services on such diverse topics as bias, innuendo, noise and communication effectiveness.² To catch the reader's attention, the advertisements described their subjects as "Nationally Qualified," "Trialworthy" and "As seen on 60 Minutes." Although these glossy advertisements tout the witness's vast expertise, any given expert⁴ need not have personal knowledge about the facts that underlie his or her testimony. The potential lack of immediate knowledge underscores the importance of trial courts' careful application of the rules of evidence governing expert testimony.⁶

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^{*} Associate Professor, Temple University School of Law. The author thanks James Leipold, Lisa Sherman and Anne Skopp for their valuable research assistance, and extends grateful appreciation to colleagues Jane Baron and Anthony Bocchino for their thoughtful comments on earlier drafts of this Article.

¹ Professor Ronald Carlson commented upon this trend in 1986. Ronald L. Carlson, *Policing the Bases of Modern Expert Testimony*, 39 VAND. L. Rev. 577, 577 (1986).

² A.B.A. J., Sept. 1994, at 92-94 (advertisements).

³ *Id*

⁴ Experts are defined, and their testimony authorized, by Rule 702, which provides generally that if qualified by knowledge, skill, experience, training or education, experts are permitted to testify in the form of an opinion or otherwise. FED. R. EVID. 702.

⁵ Federal Rule of Evidence 602 prohibits a witness from testifying about a matter unless the witness possesses personal knowledge of the matter. Fed. R. Evid. 602. Rule 602, however, is by its terms subject to the provisions of Rule 703, which permits an expert to testify on the basis of information "made known to the expert at or before the hearing." Fed. R. Evid. 703. For the full text of Rule 703, see *infra* note 8.

⁶ As Judge Learned Hand once observed:

The trouble with conflicting expert testimony is that it is setting the jury to decide where doctors disagree. The whole object of the expert is to tell the jury, not facts, as we have seen, but general truths derived from his specialized experience. But how can the jury judge between two statements each founded upon an experience confessedly foreign in kind to their own? It is just because they are incompetent for such a task that an expert is necessary at all.

Learned Hand, Historical and Practical Considerations Regarding Expert Testimony, 15 HARV. L. Rev. 40, 54 (1901) (quoted in Christophersen v. Allied Signal Corp., 939 F.2d 1106, 1112 n.10 (5th Cir. 1991)).

More than twenty years have passed since the Committee on Rules of Practice and Procedure of the Judicial Conference first proposed the Federal Rules of Evidence. Despite that period of time, the precise meaning of one of the Rules' important provisions regarding expert testimony remains unclear. Rule 703, which in broad terms defines the acceptable facts or data that may underlie (form the basis of) an expert's opinion, leaves unanswered several important questions regarding expert testimony.

Although Rule 703 clearly defines the information an expert may rely upon, courts disagree whether the Rule addresses the admissibility of that information. Some courts say it does; others say it does not. The decisions holding that Rule 703 authorizes the admission of the information forming the basis of the opinion reveal a dispute regarding the appropriate value to be assigned the evidence. Some courts appear to admit the underlying information as full substantive evidence, 11 Others admit only the opinion as full, substantive evidence,

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 the expert 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.

FED. R. EVID. 703. Twenty-four states adopted the provision without change: Arizona, Arkansas, Colorado, Delaware, Idaho, Maine, Minnesota, Mississippi, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Carolina, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, West Virginia, Wisconsin and Wyoming. Alaska, Florida, Hawaii, Illinois, Iowa and Rhode Island adopted reworded versions without substantive change.

⁹ Rule 702 provides that a qualified expert may testify in the form of an opinion "or otherwise." FED. R. EVID. 702. This Article will focus on the distinction between an expert's point of view and the facts forming the basis of that point of view. In order to preserve that distinction, I will use the word "opinion" to refer to the expert's point of view, no matter what form that point of view might take, and the words "basis" and "bases" to refer to the facts or data on which the point of view rests.

¹⁰ Gong v. Hirsch, 913 F.2d 1269, 1272–73 (7th Cir. 1990) (Rule 703 itself does not address the admissibility of the underlying information); Marsee v. United States Tobacco Co., 866 F.2d 319, 323 (10th Cir. 1989) (whether inadmissible basis evidence may be brought out on direct examination is not addressed by either Rule 703 or 705). *But see* Durflinger v. Artiles, 563 F. Supp. 322, 327 (D. Kan. 1981) (admitting, as "validated by Rule 703 of the Federal Rules of Evidence," the deposition testimony of a psychiatrist containing an expert opinion and the basis of that opinion), *aff'd*, 727 F.2d 888, 892 (10th Cir. 1984).

¹¹ See, e.g., United States v. Rollins, 862 F.2d 1282, 1292 (7th Cir. 1988) (admitting, as part of basis of F.B.I. agent's expert opinion on meaning of code language, statements of informant);

⁷ In 1969, the Advisory Committee on Rules and Evidence submitted Proposed Rules of Evidence for the United States District Courts and Magistrates to the Committee on Rules of Practice and Procedure of the Judicial Conference of the United States. 46 F.R.D. 161 (1969). The current Federal Rules were adopted on January 2, 1975 and became effective on July 1, 1975. Act to Establish Rules of Evidence for Certain Courts and Proceedings, Pub. L. No. 93-595, 88 Stat. 1926 (1975).

⁸ Rule 703 states:

but admit the underlying facts for the limited purpose of explaining or supporting the expert's opinion.¹² And many of the courts that admit the information disagree about the circumstances that govern admission.¹³

Problems regarding application of Rule 703 involve two, somewhat opposing, concerns. One side focuses on the proponent of the expert testimony, and reflects a concern that the law not unfairly or artificially restrict what experts may disclose. Where the expert's opinion rests on facts or data not admissible in evidence but customarily relied upon by experts in forming opinions on the subject, preventing the expert from disclosing the facts on which she relied may undermine the persuasiveness of that opinion. An accident investigator, for example, may rely in part on statements of eyewitnesses to conclude that the driver of a vehicle was speeding before the accident. If eyewitness estimates of speed customarily contribute to an expert's opinion about the speed of a vehicle, the expert's reliance on those estimates ought to be known to, rather than hidden from, the factfinder, whose job is to evaluate the expert's opinion.

On the other hand, a rule permitting the expert to disclose otherwise inadmissible information whenever, and just because, the expert relied on it would undermine the integrity of the adversary system by placing experts in control of the admissibility of evidence. A court determining that a driver's post-arrest estimate of speed was a statement illegally obtained and thus generally inadmissible, could modify, by limiting the scope of, that ruling.¹⁴ The rules of evidence, however,

In re Art Shirt Ltd., 93 B.R. 333, 340 (E.D. Pa. 1988) (finding expert's testimony regarding contents of unadmitted financial report sufficient to sustain finding of insolvency); Stevens v. Cessna Aircraft, 634 F. Supp. 137, 142–43 (E.D. Pa. 1986) (holding, as properly admitted pursuant to Rule 703, expert's testimony in aeronautical medicine describing statements of friends and associates of deceased pilot in support of opinion that pilot was under a great deal of stress), aff'd, 806 F.2d 254 (3d Cir. 1986); Durflinger, 563 F. Supp. at 327 (admitting, as "validated by Rule 703 of the Federal Rules of Evidence," the deposition testimony of a psychiatrist containing an expert opinion and the basis of that opinion), aff'd, 727 F.2d 888, 892 (10th Cir. 1984). For a reference to state court cases interpreting provisions similar to Federal Rule 703, see Ronald L. Carlson, Experts as Hearsay Conduits: Confrontation Abuses in Opinion Testimony, 76 Minn. L. Rev. 859, 861 n.7 (1992); see also Paul R. Rice, Inadmissible Evidence as a Basis for Expert Opinion Testimony: A Response to Professor Carlson, 40 Vand. L. Rev. 583, 584–85 (1987) (arguing that in certain circumstances underlying data should be admitted as substantive evidence).

¹² Dang Vang v. Vang Xiong Toyed, 944 F.2d 476, 483 (9th Cir. 1991) (expert psychologist permitted to recount hearsay as the basis for expert opinion on psychological effects of rape in § 1983 trial); Bryan v. John Bean Div. of FMC Corp., 566 F.2d 541, 545 (5th Cir. 1978) (citing Rules 703 and 705 as permitting disclosure of otherwise hearsay evidence for the purpose of illustrating the basis of expert witness opinion).

¹⁵ See infra notes 98-99 and accompanying text.

¹⁴ Statements ruled inadmissible in a party's case-in-chief can nonetheless be admissible to

should not allow experts to disclose that statement to the jury, thereby overriding the court's decision to exclude the evidence, simply because the expert relied upon the statement in forming an opinion about the speed of the vehicle.¹⁵ This is true even if experts customarily rely in part on the statements of involved drivers to determine vehicle speed. A rule that turned on actual reliance as the key to admissibility would encourage parties to "feed" otherwise inadmissible facts to their experts as a way of bringing those facts to the attention of the factfinder.

The facts or data upon which experts base their opinions derive from three potential sources: firsthand observation; presentation to the expert at the trial or hearing; or presentation to the expert outside of court and other than by the expert's own perception. The common law generally required the opinion of an expert witness to rest on firsthand observation or on the admitted facts of the case. The common law provided two notable exceptions to this rule in medical experts and valuation experts in eminent domain condemnation proceedings. Courts allowed medical experts to rely on and testify about certain categories of hearsay, and allowed valuation experts in eminent domain condemnation proceedings to rely on and disclose hearsay evidence of comparable valuations. In situations other than those involving medical experts or valuation expert, however, courts permitted only expert opinions based on one or two of the three potential sources. The common law admitted opinions based on facts or data

impeach. See United States v. Havens, 446 U.S. 620, 624 (1980). In such instances, however, the court determines upon reflection, not because of an automatic Rule of Evidence, that the statement should be admitted.

¹⁵The purpose for which the opinion is sought might affect the answer to this question. In a driver's trial for criminal homicide, recitation of prior speeding convictions might be inappropriate. But if the hearing involved the design of the highway's exit ramp, and if the numerous accidents that occurred there were the result of a design flaw, expert testimony of driver speed based on prior driving convictions would not raise the same concerns.

¹⁶ FED. R. EVID. 703 advisory committee's note.

¹⁷ See id.

¹⁸ See, e.g., Jenkins v. United States, 307 F.2d 637, 641 (D.C. Cir. 1962) (admitting medical opinion and hearsay basis); Sundquist v. Madison Ry. Co., 221 N.W. 392, 393 (Wis. 1928) (admitting medical testimony based on reports of other doctors). For a list of pre-Rules cases admitting medical testimony, see 3 Jack B. Weinstein & Margaret A. Burger, Weinstein's Evidence ¶ 703[01] nn.15, 16 (1994).

¹⁹ District of Columbia Redevelopment Land Agency v. 61 Parcels of Land, 235 F.2d 864, 866 (D.C. Cir. 1956) (approving expert's hearsay testimony of comparable land sales); Gwathmey v. United States, 215 F.2d 148, 159 (5th Cir. 1954) (stating that experts should be given testimonial leeway with regard to hearsay); United States v. 5139.5 Acres of Land, 200 F.2d 659, 661–62 (4th Cir. 1952) (holding that an expert's hearsay testimony about comparable land values does not violate the hearsay rule); see also United States v. Williams, 447 F.2d 1285, 1291 (5th Cir. 1971) (en banc) (approving land valuation expert's testimony as consistent with Confrontation Clause).

personally observed as well as opinions based on facts or data presented at trial.²⁰ The common law refused to admit either opinions, or their underlying facts or data, if they did not fit into either of these categories.²¹

Rule 703 lifts this ban and allows an expert to rely on facts or data made known to him or her at *or before* the hearing.²² If the facts or data are of a type reasonably relied upon by experts in the particular field in forming opinions upon or inferences from the subject, Rule 703 provides that the facts or data need not be independently admissible in evidence.²³

Rule 703 continues to raise a thorny question: although the expert may appropriately *rely upon* facts or data not admitted into evidence, to what extent and under what circumstances may the expert disclose,²⁴

All perception is inferential, and most knowledge social; since Kant we have known that there is no unmediated contact between nature and thought. Knowledge acquired through others may still be personal knowledge within the meaning of Fed. R. Evid. 602, rather than hearsay, which is the repetition of a statement made by someone else—a statement offered on the authority of the out-of-court declarant and not vouched for as to truth by the actual witness. Such a statement is different from a statement of personal knowledge based merely, as is most knowledge, on information obtained from other people. The same principles apply to the acquisition of knowledge by expert witnesses.

879 F.2d 1518, 1523 (7th Cir. 1989). Such a recognition might explain why the court in United States v. Ware, 914 F.2d 997, 1008 (7th Cir. 1990), expressed no concerns about either hearsay or firsthand knowledge in admitting expert testimony that a gun had been in another state based on markings on the gun compared with research in publications, trade books and magazines.

²⁰ If time permitted, an expert quite obviously could sit through the entire presentation of evidence. It was far more common to present the evidence to the expert in the form of a fact-laden hypothetical question.

²¹ Taylor v. B. Heller & Co., 364 F.2d 608, 613 (6th Cir. 1966) (holding that expert appraisal could not be based on hearsay appraisals of non-experts). Two concepts flow from this. First, not all inadmissible evidence is inadmissible because it is hearsay. As a result, a focus on hearsay is too narrow. For example, a psychiatrist who relies on prior (inadmissible) behavior of a defendant to judge the defendant's sanity or dangerousness is relying on information that is inadmissible for reasons other than the possibility that proof would come in the form of hearsay. Similarly, a fire marshal who relies on a suppressed confession of a suspected arsonist to conclude that a fire was arson is relying on information inadmissible for reasons other than the prohibition against hearsay. In determining the admissibility of the otherwise inadmissible basis, it is important to look beyond hearsay concerns. See infra text accompanying notes 116–17. A second concern involves the elusive nature of hearsay. Rule 801(c) defines hearsay as "a statement, other than one made by the declarant while testifying at the trial or hearing, offered in evidence to prove the truth of the matter asserted." FED. R. EVID. 801(c). In truth, though, much of what we know is hearsay. In AGFA-Gevaert v. A.B. Dick Co., the court stated:

²² Fed. R. Evid. 703.

²³ See id.

²⁴ In the context of this Article, whether the expert may "disclose" the underlying basis is the same as whether the court may "admit" that information. Mere admission or disclosure does not, however, define the purpose for which the information may be considered by the factfinder, either for full substantive value or merely as support for the expert's opinion.

during direct examination, the underlying facts or data relied upon? Clearly, if the information relied upon fails to meet the requirements of Rule 703, then neither the opinion nor the information relied upon may come into evidence.²⁵ When the information relied upon does meet the threshold requirements of Rule 703, admissibility becomes less clear.

By asking "to what extent" the expert may disclose underlying facts or data, this Article focuses on two questions. First, assuming Rule 703's requirements are met, what information may the factfinder hear: the opinion only, or both the opinion and the information relied upon in forming that opinion? Second, if the factfinder may hear the underlying facts or data, for what purpose may the factfinder consider that information? In asking "under what circumstances" the expert may disclose the information relied upon, the Article addresses the standards by which compliance with Rule 703 should be judged.

The Rules of Evidence must provide the starting point for answering these questions. Although five of the six Rules in Article VII address expert testimony,²⁶ only two address the admissibility of the factual basis of expert opinions,²⁷ and only Rule 703 addresses the admissibility of the basis on direct examination.²⁸

By expanding the sources on which expert testimony could be based, the first sentence of Rule 703 clearly intended to expand prior law.²⁹ That sentence provides that in addition to common-law

²⁵ See United States v. 0.161 Acres of Land, 837 F.2d 1036, 1040 (11th Cir. 1988) (cautioning against admission of expert's testimony where it lacks a reasonable factual basis); Smith v. Ortho Pharmaceutical Corp., 770 F. Supp. 1561, 1573 (N.D. Ga. 1991) (barring opinions where there is a lack of a reliable factual basis).

²⁶ Rule 702 sets forth the general requirements of expertise and helpfulness as conditions of expert testimony; Rule 704 governs opinions on the case's ultimate issue; and Rule 706 governs court-appointed experts.

²⁷ The two Rules are Rules 703 and 705. For the full text of Rule 703, see *supra* note 8. Rule 705, entitled "Disclosure of Facts or Data Underlying Expert Opinion" states: "The expert may testify in terms of opinion or inference and give 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." FED. R. EVID. 705. The provisions of Rule 705 are not specifically addressed by the issues discussed in this Article.

²⁸ Rule 705 excuses disclosure of underlying bases on direct examination and so is silent on the circumstances governing admissibility of that information. Fed. R. Evid. 705. For the text of Rule 703, see *supra* note 8.

²⁹The Advisory Committee stated explicitly that the Rule was designed to broaden the basis of expert opinions beyond the practice of many jurisdictions. FED. R. EVID. 703 advisory committee's note; accord DeLuca v. Merrell Dow Pharmaceuticals, 911 F.2d 941, 952–53 (3d Cir. 1990); see also Daubert v. Merrell Dow Pharmaceuticals, 113 S. Ct. 2786, 2794 (1993) (describing thrust of the Federal Rules of Evidence as liberal and the approach as one designed to relax the traditional barriers to opinion testimony); Coal Resources, Inc. v. Gulf & W. Indus., 865 F.2d 761, 772 n.4 (6th Cir. 1989) (suggesting that the liberalization of Rule 703 did not eliminate the requirement that expert opinion be based on reliable data rather than pure speculation).

sources,³⁰ experts may rely on information made known to them before the hearing. In answering the question of permissible sources, however, Rule 703 raised other questions concerning the use of facts or data appropriately relied upon. The first sentence of Rule 703 fails to state whether all facts regularly relied upon by experts in the field may be disclosed to the factfinder. The first sentence also fails to state whether inadmissible facts merit a different analysis than otherwise admissible facts that have not been admitted.³¹ Finally, the first sentence of Rule 703 fails to distinguish analytically between information disqualified as hearsay and information disqualified due to other evidentiary bars.³²

The second sentence of Rule 703 attempted, with limited success, to address these questions. That sentence provides that information relied upon by the expert of a type reasonably relied upon by experts in the particular field need not itself be admissible in evidence. The second sentence, however, fails to resolve the question whether the court may admit, either as evidence or in support of the expert's opinion, the facts that form the basis of the expert's opinion, ³³ or whether the court may admit only the opinion while excluding the underlying facts, on the theory that the opinion is qualified even

³⁰ See supra text accompanying notes 16-20.

³¹ If the information is admissible, the evidentiary dilemma is legally less troubling. See Christophersen v. Allied Signal Corp., 939 F.2d 1106, 1118 (5th Cir. 1991) (Clark, C.J., concurring) (explaining that the reliability of the facts and data underlying the expert's opinion only comes into question if the facts and data are inadmissible). The other dilemmas are tactical. In the case of admissible facts unfavorable to the proponent, the proponent has the tactical choice of either eliciting the facts and minimizing their adverse impact, or persuading the factfinder of the merits of the expert's opinion without disclosing the complete basis of that opinion. Where the unadmitted facts favor the opponent, however, the opponent has the tactical option of eliciting them on cross-examination, pursuant to Rule 705. Thus, the opponent, who should be the appropriate source of concern in resolving these questions, never suffers the sting of the facts unless he or she chooses to elicit them.

³² For an example of the heavy emphasis on hearsay as the problem, see Edward J. Imwinkelreid, A Comparativist Critique of the Interface Between Hearsay and Expert Opinion in American Evidence Law, 33 B.C. L. Rev. 1, 17 (1991) (citing Charles T. McCormick et al., McCormick on Evidence § 15 (Edward W. Cleary ed., 3d ed. 1984) for the proposition that the "prevailing view was that information could not even serve the limited purpose of furnishing part of the basis for an expert opinion unless the information was independently admissible under the hearsay doctrine") (emphasis added). An interesting question, beyond the scope of this Article, involves the line between knowledge (much of which is ultimately based on hearsay) and other data relied upon by an expert that does come within the provisions of Rule 703. See AGFA-Gevaert v. A.B. Dick Co., 879 F.2d 1518, 1523 (7th Cir. 1989) (recognizing that assessments of business persons are inferential but that so long as they are the sorts of inferences that business persons draw every day, they count as personal knowledge, not hearsay).

³³ See Imminkelreid, supra note 32, at 18–19 (arguing that the American approach is at once too conservative and too liberal: too conservative in not allowing enough hearsay to bolster the validity of the expert's methodology, which Professor Imminkelreid calls the expert's "major premise" and too liberal in permitting too much hearsay about the particulars of the case, which Professor Imminkelreid labels the expert's "minor premise").

though it is based on inadmissible information.³⁴ In addition, the second sentence leaves unclear the meaning of the requirement that the information be "of a type reasonably relied upon by experts in the particular field." Rule 703 does not answer whether "reasonably rely" means regularly rely.³⁵ Thus, the Rule provides no answer when experts in a particular field customarily rely on information that does not meet conventional definitions of reliability. If experts rely only on reliable information, that information would likely be admissible on its own merit. After all, how could one reasonably rely on unreliable information? Further, the second sentence of 703 does not address an expert's reliance on a piece of information which is reliable in the particular case, but on which experts in the field do not rely in forming opinions or inferences on the particular subject.

This Article attempts to sort out the issues and suggest answers to these questions. The Article argues that where an expert forms an opinion based on underlying facts or data which have not been admitted into evidence, ³⁶ Rule 703 permits the expert to disclose and the court to admit those facts or data but only for the limited purpose of supporting, and thereby making more persuasive, the expert's opinion. Courts should allow disclosure of this information only if it meets the requirements of Rule 703, and satisfies, of course, Rule 403.³⁷ Permitting such disclosure fosters truth-telling in the courtroom by allowing an expert to describe fully the reasons that support the proffered testimony or opinion. ³⁸

³⁴ See Carlson, supra note 1, at 584-85 (arguing that admission of the underlying data forming the basis of a testifying expert's opinion violates hearsay norms and, in criminal cases, the Confrontation Clause). Professor Carlson proposes a subdivision (b) to Rule 703 that would require in all criminal cases, and most civil cases, the independent admissibility of underlying data. Id. at 586; see also Roger C. Park, Confining the Expert: Rule 703(b) of the Rules of Evidence, BENCH & B. MINN., Mar. 1990, at 33, 34-35 (describing a new subsection that permits expert's reliance on but prohibits recitation of the underlying source of information).

³⁵ See Coal Resources, Inc. v. Gulf & W. Indus., 865 F.2d 761, 772 n.4 (6th Cir. 1989) (finding record inadequate to establish that expert opinion was based on information of the type on which experts regularly rely).

³⁶ Both inadmissible facts as well as facts that are admissible but simply not admitted fall within Rule 703. Because inadmissible facts present the greatest dangers to the proponent, see supra note 31, this Article will refer to "inadmissible facts" or "inadmissible bases" as encompassing both categories: inadmissible facts as well as facts that are admissible but not admitted.

³⁷ Rule 403 provides that relevant evidence may nonetheless be excluded if its probative value is substantially outweighed by the danger of, *inter alia*, unfair prejudice or confusion of the issues. Fed. R. Evid. 403.

³⁸ A similar proposal has been offered by Professor Paul R. Rice. See Rice, supra note 11, at 585–86 (arguing that the basis of an expert's opinion should come into evidence pursuant to an open-ended exception to the hearsay rule, primarily because of the illogic of the present compromise and jurors' inability to make the distinctions required by the present interpretations of

The Article also asserts that where an expert has relied on facts or data not admitted into evidence, Rule 703 bars the opinion as well as the information on which it is based unless the court determines affirmatively that reliance on the facts or data was reasonable. Where the facts or data underlying the opinion are otherwise inadmissible, this inquiry is particularly crucial. Courts should not equate assessments of reasonable reliance with determinations of the reliability of the information. That is, customary reliance by experts in the field is not dispositive of reasonable reliance. In other words, courts must give due regard for, but need not always defer to, what experts do outside the courtroom. Thus, testimony by an expert may meet the reasonable reliance test, but not simply because the expert speaks words of compliance. The court must independently assess and approve the substance of the expert's assertion.

II. Admissibility of "Basis" Testimony

The Advisory Committee designed Rule 703 to bring federal court practice⁹⁹ into line with what experts did outside of the courtroom.⁴⁰ Under the common law, admission of expert testimony was awkward. Generally, courts permitted experts to base their opinions only on

the rule; i.e., the distinction between opinion only or opinion and mention of bases only). Professor Rice also argues that the present system turns experts into super-factfinders "capable of producing admissible substantive evidence (an opinion) from inadmissible evidence," and that excluding bases "ignores the objective assurance of reliability" that comes with an expert's opinion. Id. at 586 (emphasis added). This is based on Professor Rice's judgment, with which this author disagrees, that the expert's presence in court for cross-examination is sufficient justification to permit anything the expert reasonably relied upon to be admissible for substantive purposes. Id. at 588.

⁸⁹ The text of Rule 703 has remained unchanged since its adoption with the exception of 1987 amendments, which made its language gender neutral. Rule 703 was adopted without change by Arizona, Arkansas, Colorado, Delaware, Idaho, Minnesota, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Carolina, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, West Virginia, Wisconsin and Wyoming. Alaska, Florida, Hawaii, Illinois, Iowa and Rhode Island adopted reworded versions without substantive change. Michigan adopted the first sentence but its second sentence is inconsistent with Rule 703. It provides: "The court may require that underlying facts or data essential to an opinion or inference be in evidence." MICH. R. EVID. 703. Ohio's rule is similarly inconsistent with the federal rule. Ohio R. EVID. 703. For a discussion of the Michigan rule, see generally Carlson, *supra* note 11, at 866–67 (arguing for modification of Federal Rule of Evidence 703 as a means of ensuring greater uniformity of evidence rules).

⁴⁰The Advisory Committee also identified as a goal of Rule 703 the desire to bring judicial practice into line with the practice of the experts themselves when not in court. Fed. R. Evid. 703 advisory committee's note; see also Mannino v. International Mfg. Co., 650 F.2d 846, 851 (6th Cir. 1981) (finding that the purpose of Rule 703 was to make available to the expert all of the kinds of things on which an expert would normally rely, without regard to whether those things are admissible in evidence).

personal observation or facts elicited in the courtroom.⁴¹ In a few rare cases, an expert's opinion might rest on matters personally observed. For example, a court might permit a medical doctor, testifying to events in an emergency room, to base her opinion solely on matters personally observed. In the large percentage of cases, though, the experts based their opinions on facts told to them. Accountants and economists, who routinely give opinions about damages suffered, are typical examples of experts whose courtroom opinion would depend on facts likely to be proven during the trial rather than on matters personally observed by the expert.⁴²

Either to accommodate the fact that the expert would often testify before all of the relevant facts had been elicited, or in recognition of the difficulty and expense of requiring an expert to sit through all the evidence in a case, courts began to allow litigants to elicit expert opinions through the use of hypothetical questions.⁴³ This practice entailed a complex question which asked the expert to assume a long series of facts, all of which the attorney had to elicit at trial. A problem arose when the hypothetical question included facts or data which ultimately differed from the facts in the particular case. This problem presented the judge with a difficult decision. In most instances, judges struck the expert testimony.⁴⁴ Even where the court permits the testimony to stand as sufficiently related to the facts of the case, such a ruling leaves the factfinder with an expert opinion that, on the information presented, seems thin, unjustified, or just plain wrong, because of its reliance on facts not proven.

Rule 703 solved both problems. In terms of form, it abolished the need for the tortured hypothetical by removing the requirement that courts admit in evidence all of the facts serving as the basis for the expert opinion. In terms of substance, the Rule broadened the acceptable bases of expert opinions by allowing experts to base their testimony on their out-of-court activities.⁴⁵ After all, experts did not acquire

⁴¹ See supra text accompanying notes 17-21.

⁴² For examples of experts whose testimony exceeded matters personally observed, see Beery v. Turner (*In re* Beery), 680 F.2d 705, 718 (10th Cir.) (accountants), *cert. denied*, 459 U.S. 1037 (1982); California Steel & Tube v. Kaiser Steel Corp., 650 F.2d 1001, 1003 (9th Cir. 1981) (expert on predatory pricing practices); McGregor-Doniger, Inc. v. Drizzle, Inc., 599 F.2d 1126, 1138 & n.7 (2d Cir. 1979) (trademark infringement).

⁴³ If the hypothetical included facts neither proved nor provable, the hypothetical would be stricken as irrelevant. *See, e.g.*, Panter v. Marshall Field & Co., 646 F.2d 271, 296 n.8 (7th Cir. 1981).

⁴⁴ See id.

⁴⁵ As one court describes it, Rule 703 represents the law "catching up with the realities of professional life." Mannino v. International Mfg. Co., 650 F.2d 846, 851 (6th Cir. 1981); see also

their expert qualifications with reference to the Rules of Evidence. Nor did experts develop their procedures with courtroom testimony and its evidentiary restrictions in mind. Yet those nonjudicial qualifications and procedures define acceptable expert testimony. Rule 703 expressed the recognition that if people customarily made real life decisions based on certain information, then courtroom decisions could also rely on the same information. Although Rule 703 made advances by permitting an expert to rely upon inadmissible information, it did not answer the question of whether the expert could disclose that information on direct examination.

A. "Bases" Should be Admissible

Does Rule 703 authorize courts to admit the otherwise inadmissible bases of an expert's opinion on direct examination?⁴⁸ Under one answer, the Rule authorizes courts to admit as substantive evidence the opinion only. This has attracted little judicial support,⁴⁹ but at least one scholar has argued forcefully for such a reading of Rule 703.⁵⁰ Accord-

FED. R. EVID. 703 advisory committee's note ("[Rule 703] is designed to . . . bring the judicial practice into line with the practice of the experts themselves when not in court.").

⁴⁶ Rule 702 provides: "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." FED. R. EVID. 702. Indeed, for years, the real world experience of experts determined the legal suitability of their scientific methodology. Frye v. United States, 293 F. 1013, 1014 (D.C. Cir. 1923) (the test for admissibility of a novel scientific technique is "general acceptance"). In Daubert v. Merrell Dow Pharmaceuticals, 113 S. Ct. 2786, 2797 (1993), the Supreme Court moved the determination of scientific methodology from the real world to the judge, in that general acceptance under *Daubert* is one of several criteria for the judge to assess pursuant to Federal Rule of Evidence 104(a).

⁴⁷ At least one scholar questions the separation of bases from opinion. In his essay, Professor Rice argues, without citation, that the practice of differentiating between opinions and their bases appears to have been borrowed from Rule 803(4) and that Rule 803(4) "now permits a doctor to repeat, for the truth of the matter asserted, what a patient said to him about medical history and cause, if those statements were 'reasonably pertinent to diagnosis or treatment.'" Rice, supra note 11, at 590 (emphasis added). Arguably, however, it is not the doctor's ability to discriminate between legitimate reports and specious complaints that justifies admission of Rule 803(4) statements into evidence. If the statements fit within the Rule, they are all admissible, whether or not the doctor relied on them in coming to an opinion. The analogy to Rule 803(4) is alluring but ultimately imperfect.

⁴⁸ This debate pertains only to the introduction of the basis on direct examination. Rule 705 permits full exploration of the basis of the expert's opinion by the cross-examiner. Fed. R. Evid. 705.

⁴⁹ International Adhesive Coating Co. v. Bolton Emerson Int'l, 851 F.2d 540, 544 (1st Cir. 1988) (an expert may rely on facts or data not admitted into evidence, but the full burden of exploration of those facts rests with the opposing counsel).

50 Carlson, supra note 1, at 583-85. Professor Carlson also argues that Rule 703 does not

ing to this line of reasoning, in order for the bases of an expert's opinion to be admissible on direct examination, the bases would themselves have to be independently admissible.⁵¹ This line of reasoning avoids the problem of a jury being misled by the otherwise inadmissible "basis" evidence and being incapable of disregarding any potential substantive use the information might have.

Under an alternative reading, Rule 703 could authorize courts to admit both the opinion and the basis as substantive evidence⁵² and not for the limited purpose of judging the persuasiveness of the expert's opinion. Of all the alternatives, this is the most fearsome, because it would allow a party calling an expert to prove an otherwise inadmissible fact by eliciting testimony that the expert relied on the fact. In essence this strategy would permit Rule 703 to constitute an end-run around the entire remainder of the Code of Evidence. Not surprisingly, no located case makes this ruling explicitly.

create a new hearsay exception for the admission of the facts and data upon which an expert relies. Ronald L. Carlson, Getting a Grip on Experts, 16 LITIG., Summer 1990, at 36, 37. But see Rice, supra note 11, at 586 (arguing that the basis of an expert's opinion should come in pursuant to an open-ended exception to the hearsay rule).

⁵¹ Carlson, supra note 1, at 584–85. At least one state has incorporated such a provision in its evidence code. Rule 703(b) of the Minnesota Rules of Evidence, which became effective on January 1, 1990, states:

Underlying expert data must be independently admissible in order to be received upon direct examination; provided that when good cause is shown in civil cases and the underlying data is particularly trustworthy, the court may admit the data under this rule for the limited purpose of showing the basis for the expert's opinion. Nothing in this rule restricts admissibility of underlying expert data when inquired into on cross-examination.

MINN. R. EVID. 703(b); see also Park, supra note 34, at 34. Interestingly, Park suggests that Minnesota Rule 703(b) will probably not change existing practice in condemnation and other land valuation cases, and indeed this was the specific desire of the Minnesota Advisory Committee, which filed a comment to that effect. MINN. R. EVID. 703 advisory committee's comment. This begs the question why, except for tradition, condemnation cases should constitute an exception. County of Ramsey v. Miller, 316 N.W.2d 917 (Minn. 1982), cited by Park, suggests that perhaps it is because it involves "foundational matters that are trustworthy and helpful to the jury in understanding the opinion." Park, supra note 34, at 35. Excepting condemnation cases from a ban on admitting underlying bases is yet another indication of the fact that lawyers are conflicted about what they want the limits of admissible bases to be. The preponderant view in the common-law world, as proclaimed by contemporary authorities in England, New Zealand, Scotland and South Africa, is to require that each fact relied on by the expert be proven by admissible evidence. Inwinkelreid, supra note 32, at 25.

⁵² Introducing otherwise inadmissible hearsay as the basis of an expert opinion for the truth of the matter goes beyond evidentiary hearsay concerns. In a criminal case, admission may offend the defendant's Confrontation Clause rights. State v. Towne, 453 A.2d 1133, 1136 (Vt. 1982); Carlson, *supra* note 50, at 36 (arguing that using Rule 703 to admit otherwise inadmissible evidence violates hearsay rule and, in criminal cases, the Confrontation Clause).

Unless the court instructs the jury that evidence is probative only of the support for an expert's opinion, the jury may freely consider the evidence for its full, substantive value.⁵³ Yet many cases that admit the basis of expert testimony fail to limit the jury's use of the evidence. Admitting the basis of expert testimony for its full substantive value could literally shift the quantum of the evidence appropriately considered in resolving burden of proof issues. Radical and forward-thinking as it was, the Advisory Committee did not intend Rule 703 to rewrite the remainder of the Code of Evidence. Thus, cases that fail to specify the limited nature of basis evidence can be (mis) understood to suggest that the basis of the expert's opinion served as full substantive evidence.⁵⁴

Other courts simply do not clarify the rationale for their outcomes or designate which "evil" they fear. 55 In re James Wilson Associ-

Courts are not the only entities whose desires are unclear. In 1990, Minnesota added a subsection (b) to its Rule 703, limiting "basis" evidence in criminal cases to evidence otherwise admissible, and limiting its admissibility in civil cases to credibility purposes only. For the text of

⁵⁸ Rule 105 provides: "When evidence which is admissible as to one party or for one purpose but not admissible as to another party or for another purpose is admitted, the court, upon request, shall restrict the evidence to its proper scope and instruct the jury accordingly." FED. R. EVID. 105. Without such a limiting instruction, however, the jury has no reason to restrict the use or value of the evidence.

⁵⁴ Concededly, courts of appeals' decisions do not regularly recite the content of jury instructions. Thus, if limiting instructions were provided, it might not be apparent from the courts of appeals' opinions. To the extent, however, that the courts of appeals' opinions provide guidance, binding or persuasive, to lower courts, their failure to define whether evidence is of full or limited value represents a serious omission. See, e.g., United States v. Rollins, 862 F.2d 1282, 1292 (7th Cir. 1988) (allowing as within Rule 703 recitation of statements of informant which formed part of basis of FBI agent's expert opinion on the meaning of code language); In re Art Shirt Ltd., 93 B.R. 333, 340 (E.D. Pa. 1988) (approving expert's testimony regarding contents of unadmitted financial report as sufficient to sustain finding of insolvency); Stevens v. Cessna Aircraft, 634 F. Supp. 137, 142-43 (E.D. Pa.) (admitting, as properly within Rule 703, the introduction of otherwise inadmissible evidence if it is of a type reasonably relied on by experts in the field, and permitting expert in aeronautical medicine to describe statements of deceased pilot's friends and associates that led expert to conclude pilot was under a great deal of stress), aff'd, 806 F.2d 254 (3d Cir. 1986); Durflinger v. Artiles, 563 F. Supp. 322, 327 (D. Kan. 1981) (admitting, as "validated by Rule 703 of the Federal Rules of Evidence," the deposition testimony of a psychiatrist containing an expert opinion and the basis of that opinion), aff'd, 727 F.2d 888, 892 (10th Cir. 1984).

⁵⁵ See, e.g., Dang Vang v. Vang Xiong Toyed, 944 F.2d 476 (9th Cir. 1991). In this civil case, the trial court had permitted damage experts to recount reports of rape victims in order to demonstrate the basis of their opinions on damages. *Id.* at 483. The Ninth Circuit upheld the verdict, but declined to specify its view of the evidentiary matter. *Id.* "Even if the evidentiary rulings were in error, there was insufficient prejudice to justify a reversal here." *Id.* While this practice might be lauded by some as an appropriate exercise of judicial restraint, such equivocation does little to assist trial courts who must, in the first instance, navigate these issues. *See* Daubert v. Merrell Dow Pharmaceuticals, 113 S. Ct. 2786, 2799 (1993) (Rehnquist, C.J., concurring in part and dissenting in part) (complaining that general observations by courts tend to be of little help to lower courts because they are vague and abstract).

ates⁵⁶ exemplifies the vagueness of opinions on this subject. In James Wilson, the expert, an architect, sought to testify to information told to him by a consultant the expert had hired.⁵⁷ The information was, for trial purposes, unquestionably hearsay.⁵⁸ The Seventh Circuit began by acknowledging the general propriety of using Rule 703 to justify disclosure of this type of otherwise inadmissible evidence.⁵⁹ The court added, however, that disclosure would only be appropriate upon the court's satisfaction that the effort did not constitute an attempted end-run around the Rules of Evidence.⁶⁰ According to the court, the fact that an expert may permissibly rely on inadmissible evidence in forming her opinion does not support the proposition that evidence otherwise inadmissible becomes admissible for all purposes, including purposes independent of the opinion.⁶¹ Having stated this, the court summarized the problem before it as follows:

If for example the expert witness (call him A) bases his opinion in part on a fact (call it X) that the party's lawyer told him, the lawyer cannot in closing argument tell the jury, "See, we proved X through our expert witness, A." That was the kind of hand-off attempted in this case.⁶²

Admitting information relied upon by an expert for the limited purpose of supporting the expert's opinion is a rational position to take. This would mean that the testifying expert may mention fact X (vehicle speed as estimated by eyewitnesses) to explain the basis of her opinion (the accident was caused by excess speed of one of the vehicles), but that an attorney may not use fact X (vehicle speed as esti-

An expert is of course permitted to testify to an opinion formed on the basis of information that is handed to rather than developed by him—information of which he lacks first-hand knowledge and which might not be admissible in evidence no matter by whom presented. Fed. R. Evid. 703. And in explaining his opinion an expert witness normally is allowed to explain the facts underlying it, even if they would not be independently admissible.

the provision, see *supra* note 51. Notwithstanding the provisions of Rule 703(b), the Minnesota Advisory Committee filed a Supplemental Commentary suggesting that despite the new rule, practice should not change in condemnation and other land valuation cases. *See* Park, *supra* note 34, at 34–35. Query why condemnation cases and land valuation cases should be excluded from the reach of the rule.

^{56 965} F.2d 160 (7th Cir. 1992).

⁵⁷ Id. at 172-73.

⁵⁸ Id.

⁵⁹ Id.

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⁶⁰ Id. at 173.

⁶¹ James Wilson, 965 F.2d at 173.

⁶² *Id*.

mated by eyewitnesses) to prove the disputed issue in the lawsuit (the vehicle's actual speed). This position also comports with the general policy in Rule 105 regarding the appropriateness of receiving evidence for limited uses.⁶³

Having so summarized the facts, the court in James Wilson excluded, rather than limited, the value of the engineer's statements as recited by the architect, and thereby raised a problem.⁶⁴ If the architect did not in fact rely on the hearsay in forming his opinion and instead merely attempted to use his expert status to smuggle in raw hearsay, the court appropriately excluded the evidence because it was hearsay. The court, however, cited no evidence to support such a conclusion. Nor did the court describe the problem as one of smuggling in hearsay. Rather, the court characterized the problem as involving a hand-off, or an attempt to pass off as substantive evidence, facts that were admissible, though only as the basis of the expert's opinion.65 Thus, the court's remedy, exclusion, did not fit the court's characterization of the problem.⁶⁶ On the other hand, if the court mischaracterized the problem and on its own concluded that the expert's testimony represented an attempt to smuggle in hearsay by disingenuously including it as a basis of the expert's opinion, then excluding the information involved troubling exercises of supposing and second-guessing by the court.67 In an effort against such ad hoc assessments and in favor of both clarity and certainty, at least one scholar has argued forcefully that Rule 703 should be rewritten.68

⁶³ See supra note 53.

⁶⁴ James Wilson, 965 F.2d at 172-73.

⁶⁵ Id. at 173.

⁶⁶The *James Wilson* court said it would have been permissible for the testifying witness, an architect, to

use what the engineer told him to offer an opinion within the architect's domain of expertise, but he could not testify for the purpose of vouching for the truth of what the engineer had told him—of becoming in short the engineer's spokesman. . . . [I] t is improper to use an expert witness as a screen against cross-examination (though the other side could always call him as an adverse witness, and cross-examine him).

Id.

⁶⁷ The court could have excluded the evidence based on a finding that its probative value was substantially outweighed by dangers of unfair prejudice. FED. R. EVID. 403. This, however, was not so stated by the court.

⁶⁸ Imwinkelreid, *supra* note 32, at 35 (arguing that as written, Rule 703 admits the basis for credibility only, but that the rule should be rewritten to require that underlying facts and data be independently admissible in order to be disclosed on direct examination); *see also* Carlson, *supra* note 1, at 585–86. Professor Carlson has also called for a revision of Rule 703, and, in addition to the existing rule, would add a new section (b) as follows:

In criminal cases, and generally in civil cases, underlying expert testimony must be

Under a third view, the Rule could authorize courts to admit the opinion as substantive evidence; the court could also admit information forming the opinion's basis, but solely for the purpose of evaluating the persuasiveness, or believability, of the expert's opinion.⁶⁹ Although most of the courts that admit the otherwise inadmissible basis do so on this rationale,⁷⁰ many do not explicitly limit for the jury the purpose of the "basis" testimony.⁷¹

Resolving the question of whether courts may admit the basis of expert testimony, and if so for what purpose, has proven a difficult task. It is important to note, though, that the question of admissibility of facts or data relied upon does not equate with, nor is it answered by, assessing either the expert's qualifications or her methodology.⁷² Before an expert may testify, the court must find the expert qualified,

independently admissible in order to be received in evidence. An expert's reliance on unadmitted data does not mandate introduction of the data, where the sole reason for introduction is that it formed a basis for the expert's opinion. When good cause is shown in civil cases and the underlying information is particularly trustworthy, the court may admit the data under this rule to illustrate the basis for the expert's opinion.

Id. at 586 n.29.

⁶⁹ Professor Paul Rice is the leading advocate of the position that the rule as written is adequate and that the underlying data should be admitted. Professor Rice, however, would impose a requirement that the hearsay declarant be unavailable. *See* Rice, *supra* note 11, at 592. As pointed out, however, not all disputed bases are hearsay. See *infra* text accompanying notes 117–18.

⁷⁰ See, e.g., Boone v. Moore, 980 F.2d 539, 542 (8th Cir. 1992) (allowing expert to use otherwise inadmissible evidence in testimony but not for the truth of content); In reJames Wilson Assocs., 965 F.2d 160, 172–73 (7th Cir. 1992); Wilson v. Merrell Dow Pharmaceuticals, 893 F.2d 1149, 1153 (10th Cir. 1990); Paddack v. Dave Christensen, Inc., 745 F.2d 1254, 1261–62 (9th Cir. 1984).

71 See, e.g., Nachtsheim v. Beech Aircraft Corp., 847 F.2d 1261, 1270 (7th Cir. 1988) (concluding that evidence will not automatically be admitted under Rule 703); United States v. Mest, 789 F.2d 1069, 1074 (4th Cir. 1986) (finding that Rule 703 may permit but does not compel admission simply because evidence was relied upon); Rose Hall, Ltd. v. Chase Manhattan Overseas Banking Corp., 576 F. Supp. 107, 158 (D. Del. 1983) (concluding that while expert may base opinion on otherwise inadmissible evidence, such reliance does not magically render the evidence admissible). This approach has received some scholarly support. See Edward J. Imwinkelreid, The "Bases" of Expert Testimony: The Syllogistic Structure of Scientific Testimony, 67 N.C. L. Rev. 1, 26 (1988) (arguing that under Rule 703 judges should exercise discretion in deciding whether the jury hears the full detail of the underlying facts and data).

⁷² See, e.g., Christophersen v. Allied-Signal Corp., 939 F.2d 1106, 1110 (5th Cir. 1991). Christophersen suggests a four-step analysis for evaluating expert testimony:

(1) Whether the witness is qualified to express an expert opinion, Fed.R.Evid. 702; (2) whether the facts upon which the expert relies are the same type as are relied upon by other experts in the field, Fed.R.Evid. 703; (3) whether in reaching his conclusion the expert used a well-founded methodology, Frye, and (4) assuming the expert's testimony has passed Rules 702 and 703, and the Frye test, whether under Fed.R.Evid. 403 the testimony's potential for unfair prejudice substantially outweighs its probative value.

that is, that she possesses a certain level of scientific, technical or other specialized knowledge. The fact that the expert is qualified to testify, however, does not render all the expert's testimony automatically admissible. All rules of evidence, including Rule 703, are available to permit, and restrict, the particular testimony offered.

In addition to finding that the expert possesses the skill, training, education or experience to be considered qualified, the court must evaluate the expert's methodology. Methodology involves the process by which the expert arrived at her conclusion. 74 Assessing methodology involves evaluating the scientific or technical validity of that process. 75 For years, Frye v. United States, 76 which involved inquiries into whether

Validity and reliability, though intertwined, are very different concepts. One normally speaks of "valid" rather than "reliable" reasons or theories, and of "reliable" rather than "valid" instruments or machines. Results, conclusions, or techniques may be either valid or reliable. Behind these simple examples of everyday usage lie largely overlooked conceptual distinctions and relationships that are fundamental to a coherent legal theory of scientific evidence.

... [R]eliability means that a successful outcome, or a correct answer, is sufficiently probable for a given situation.... In contrast to reliability, validity means that which results from sound and cogent reasoning. An invalid conclusion cannot be reliable, yet valid reasoning does not necessarily lead to reliable conclusions. Reliability is the ultimate legal concern, but when it hinges on controversial contested reasoning, the validity of that reasoning must be addressed.

Distinguishing between validity and reliability is important because it permits the separation of scientific questions from legal questions.... [T]he scientific question [should be viewed] as a matter of validity, with the answer depending on accepted scientific practice and the soundness and cogency of the entire pattern of reasoning leading to the expert's conclusion. In contrast, the legal question relates to how much reliability the law requires, with the answer depending on legal standards.

Id. at 599–600; see also Daubert v. Merrell Dow Pharmaceuticals, 113 S. Ct. 2786, 2795 n.9 (1993), which suggests that validity answers the question: "Does the principle support what it purports to show?" whereas reliability answers the question: "Does application of the principle produce consistent results?"

⁷⁵ See Christophersen, 939 F.2d at 1129 n.30 (Reavley, J., dissenting) (quoting DeLuca v. Merrell Dow Pharmaceuticals, 911 F.2d 941, 953 (3d Cir. 1990)) ("Rule 703 is satisfied once there is a showing that an expert's testimony is based on the type of data a reasonable expert in the field would use in rendering an opinion on the subject at issue; it does not address the reliability or general acceptance of an expert's methodology."); accord Brown v. Monsanto Co. (In re Paoli R.R. Yard Litig.), 916 F.2d 829, 856 (3d Cir. 1990) (finding that when scientist's technique or methodology is attacked, in contrast to attack on the data relied on, court must analyze reliability under Rule 702).

 76 293 F. 1013 (D.C. Cir. 1923). Frye held that expert testimony was admissible if the underlying technique upon which the testimony or data was based had gained "general acceptance in

⁷⁸ FED. R. EVID. 702.

⁷⁴ See Christophersen, 939 F.2d at 1111 n.9, where the court noted that "[o]ne commentator has sought to capture the distinction between an expert's methodology (or reasoning) and an expert's conclusion by evaluating the former according to its scientific 'validity' and the latter according to its legal 'reliability.'" The court then quoted at length from Bert Black, A Unified Theory of Scientific Evidence, 56 FORDHAM L. Rev. 595 (1988). Black explains the distinction as follows:

the methods used by the expert had reached a level of acceptance sufficient to be considered scientifically valid, governed the most common questions of this nature. *Daubert v. United States*⁷⁷ overruled *Frye* in 1993, and replaced *Frye*'s "general acceptance" test with an extensive set of factors for the court to assess.⁷⁸

Although temptingly similar, questions about the admissibility of the facts on which the expert relied differ from questions about methodology. In addressing the information on which an expert may rely, Rule 703 does not address the scientific methods used by the expert. Instead, assuming the propriety of the methods used and the qualification of the expert to testify, Rule 703 permits the expert to rely, in forming her opinion, on facts or data not necessarily admissible in evidence. As a matter of logic and legislative intent, if the expert may rely on these facts, then the facts should themselves be admissible—but admissible only for the limited purpose of supporting the expert's opinion—subject to the rest of Rule 703 and the requirements of Rule 403.79

Logic supplies the most compelling argument in favor of admitting the factors upon which the expert relied. If in her field of expertise, an expert relies on factors A, B, C, and D in arriving at an opinion, evidentiary rules should authorize the court to permit disclosure of those factors. Rule 705, which also breaks with common-law tradition, provides that experts may offer opinions or inferences and give reasons therefor without prior disclosure of the underlying facts or data. Under Rule 705, however, courts may require experts to disclose the underlying facts or data on cross-examination. ⁸⁰ Disclosure on cross-examina-

the particular field to which it belongs." *Id.* at 1014. Modern courts tend to apply a "substantial acceptance" test rather than a "general acceptance" test. *See, e.g.*, United States v. Gould, 741 F.2d 45, 49 & n.2 (4th Cir. 1984). *Frye* was overruled in 1993 by Daubert v. Merrell Dow Pharmaceuticals, 113 S. Ct. 2786 (1993).

^{77 113} S. Ct. 2786 (1993).

⁷⁸The factors are: 1) whether the theory or technique can be and has been tested; 2) whether the theory or technique has been subjected to peer review and publication; 3) the known or potential rate of error of the technique; 4) the existence and maintenance of standards controlling the technique's operation; and 5) whether the technique has been "generally accepted" in a relevant scientific community. *Id.* at 2796–97.

⁷⁹ Rule 703 limits reliance to facts "of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the particular subject." FED. R. EVID. 703. Rule 403 prohibits the introduction of evidence even though relevant if the probative value of the evidence is substantially outweighed by the danger of, *inter alia*, unfair prejudice or confusion of the issues. FED. R. EVID. 403. The general applicability of Rule 403 to all other provisions of the Rules of Evidence, including Rule 703, is not challenged. *See, e.g.*, Emigh v. Consolidated Rail Corp., 710 F. Supp. 608, 612 (W.D. Pa. 1989); *see also* Nachtsheim v. Beech Aircraft Corp., 847 F.2d 1261, 1270–71 (7th Cir. 1988) (factual basis of expert opinion excluded as substantially more prejudicial than probative).

⁸⁰ For the full text of Rule 705, see supra note 27.

tion, however, does not solve the problem. In all cases, and especially where the proponent of the expert bears the burden of proof, the goal is persuasive expert testimony. To the extent that the expert reasonably relied on admissible factors A, B, and C and on inadmissible factor D, the proponent has an interest in painting not merely an accurate, but also a complete, picture of the process of expertise. If factor D is unhelpful to the opponent, that party has no incentive to question the expert about it. Factor D remains unrevealed, leaving the factfinder to ponder how the expert could have come to the particular conclusion based only on factors A, B, and C. And a talented opponent will suggest as much in closing argument. If experts in the field customarily rely on factor D, then, so long as Rule 40381 is satisfied and the court gives appropriate limiting instructions,82 admission of all the factors relied upon (admissible factors A, B, and C and inadmissible factor D) fosters truth-telling in the courtroom and promotes fairness to the proponent.83

Second, admitting the factors relied upon by the expert brings coherence to the Rules of Evidence. Rule 705, in a dramatic break from the cumbersome practice of eliciting expert testimony through the use of hypotheticals,⁸⁴ permits the expert to offer her opinion without prior disclosure of the underlying facts or data, unless the court requires otherwise. If the facts or data underlying the expert's opinion were not to be routinely disclosed, there would be no need for a rule of sequence that placed the opinion before disclosure of the facts. Moreover, if the only facts or data that could be considered as the basis of the expert's opinion were those that were already admitted in evidence, there would be no need for the rule to say that the expert need not *disclose* them. Thus, Rule 705 would have been nonsensical unless it contemplated the routine disclosure of otherwise inadmissible facts or data underlying the expert's opinion.

Third, history compels the admission of information on which the expert relied. The Advisory Committee Notes state clearly that the goal of Rule 703 is to bring courtroom practice in line with the activities of

⁸¹ Although most evidence will be challenged as unfairly prejudicial under Rule 403, all grounds of exclusion under the Federal Rules will remain. Therefore, where the basis of the opinion renders the opinion unhelpful to the factfinder, it is subject to exclusion pursuant to Rule 702. Where the basis is irrelevant, the basis and the opinion itself can be stricken pursuant to Rule 402.

⁸² See supra note 53.

⁸³ See Carlson, supra note 11, at 872 (arguing that "[d]etailed rendition of unauthenticated hearsay should be barred").

⁸⁴ See supra notes 43-44 and accompanying text.

the experts when not in court.⁸⁵ Prohibiting experts from disclosing their normal procedures would frustrate this goal. And disclosure is consistent with the Federal Rules' goals of expanding the admissibility of evidence,⁸⁶ leaving "questions relating to the bases and sources of an expert's opinion [to] affect the weight to be assigned that opinion rather than its admissibility."⁸⁷

Moreover, courts should not admit the information relied upon by the expert without limitation. Initially, courts should limit the information to the purpose of supporting the expert's opinion. The opponent, however, must shoulder the burden of asking for a limiting instruction.⁸⁸ Once requested, it is critical for courts to make effective use of limiting instructions so that factfinders make appropriate use of this information.⁸⁹ Equally important, courts of appeals must make

We have interpreted Rule 703 as allowing an expert to reveal the basis of his testimony during direct examination, even if this basis is hearsay, provided that the facts or data underlying his conclusions are of a type reasonably relied upon by others in his field of expertise. The hearsay is admitted for the limited purpose of informing the jury of the basis of the expert's opinion and not for proving the truth of the matter asserted.

Wilson, 893 F.2d at 1153 (citations omitted); see Sandberg v. Virginia Bankshares, Inc., 891 F.2d 1112, 1123 (4th Cir. 1989) (finding that expert's opinion as to stock valuation for damages, which was based on both dividend discount method and comparison with stock prices of similar banks, was supported by information reasonably relied upon by experts in particular field); United States v. Lundy, 809 F.2d 392, 394 (7th Cir. 1987) (approving, without mentioning Rule 703, testimony of arson expert based on interviews with witnesses, as type of information normally relied upon by experts in field).

⁸⁸ Wilson, 893 F.2d at 1153 n.5. Comparative contextual explanations are very helpful. Rather than saying, "Members of the jury, you have heard evidence of fact X (eyewitness estimate of plaintiff's vehicle's speed). As I told you at the time, that evidence is admissible for the sole purpose of evaluating the believability of the expert's opinion about the cause of the crash," the court should explain in the context of the case. For example, "You may not use fact X to judge the speed of plaintiff's vehicle. You may not use fact X to decide if the crash was more likely plaintiff's fault or more likely defendant's fault. If you determine that the speed of plaintiff's vehicle is necessary for your deliberations, you must look to other evidence for proof of that fact and if you find no other evidence you must consider that fact unproven."

⁸⁹ Professor Imwinkelreid expresses serious doubts about whether limiting instructions are effective. See Imwinkelreid, supra note 32, at 33 n.214 for supporting authority. He also makes the point that limiting instructions are of concern only in jury trials, which are on the decline

⁸⁵ See, e.g., Emigh v. Consolidated Rail Corp., 710 F. Supp. 608, 611 (W.D. Pa. 1989) (citing Fed. R. Evid. 703 advisory committee's note) (the rationale of Rule 703 is that records sufficient for diagnosis in the hospital ought to be sufficient for opinion testimony in the courtroom); see also supra notes 39–40, 45–46 and accompanying text.

⁸⁶In Rule 703, the law is "catching up with the realities of professional life." Mannino v. International Mfg. Co., 650 F.2d 846, 851 (6th Cir. 1981).

⁸⁷ There is also a substantial amount of case authority in support of admitting the basis of the expert's opinion. Christophersen v. Allied-Signal Corp., 939 F.2d 1106, 1109 (5th Cir. 1991) (citations omitted); *accord* Wilson v. Merrell Dow Pharmaceuticals, 893 F.2d 1149, 1153 (10th Cir. 1990).

clear in their opinions that evidence admitted as the basis of expert opinion pursuant to Rule 703 has limited value. Whether juries follow limiting instructions is the subject of healthy debate, 90 but legally and tactically courts must do their part in distinguishing the value of evidence.

The ability of a party to hire an expert and thereby obtain admission of otherwise inadmissible evidence may seem troubling. In fact, the rules governing testimony of experts protect against abuse of this apparent loophole. Rule 702 requires the witness to have a suitable level of expertise, and ensures the legal appropriateness of the methodology. Rule 703 excludes the underlying bases unless experts out in the field, with no particular thoughts of testifying, reasonably rely on such data; Rule 403 ultimately excludes any information substantially more prejudicial than probative. With these safeguards⁹² in place, allow-

in this country. Judges in bench trials should be able to evaluate appropriately. *Id.* at 34. Rice, *supra* note 11, at 585, argues that telling the jury that even though the expert relied on the information for its truth, the jury should use it only to judge the credibility of the opinion, is illogical. He further argues that even if the exercise is logical, jurors cannot do it. *Id.* at 585. *But see* Weinstein & Burger, *supra* note 18, at 703–38 to 703–40 (endorsing the validity of limiting instructions); *see also* United States v. Scrima, 819 F.2d 996, 1001 n.5 (11th Cir. 1987); Baumholser v. Amax Coal Co., 630 F.2d 550, 553 (7th Cir. 1980).

⁹⁰ Whether jurors can distinguish between evidence admitted substantively and evidence admitted for a more limited purpose is doubted by both courts and scholars. *See, e.g.*, Gong v. Hirsch, 913 F.2d 1269, 1273 n.4 (7th Cir. 1990) (quoting 4 Weinstein & Burger, *supra* note 18, at ¶ 803(4)[01]).

[Rule 803(4)] rejects the distinction between treating and nontreating physicians because, as a practical matter, the advisory committee found that jurors do not distinguish between facts admitted for their truth and facts revealed as the basis for the expert's opinion. Moreover, as a matter of policy, a fact reliable enough to serve as the basis for a diagnosis is also reliable enough to escape hearsay proscription. The test for statements made for purposes of medical diagnosis under Rule 803(4) is the same as that in Rule 703—is this particular fact one that an expert in this particular field would be justified in relying upon in rendering his opinion.

Id.

⁹¹ Many people believe that limiting instructions call attention to adverse evidence. On the other hand, a creative attorney can point out in closing argument that the other side's case is indeed less substantial than it appears, emphasizing that much of the appealing evidence is of limited legal value.

⁹²An additional safeguard exists in the opportunity for the opponent to cross-examine and thereby attack not only the information relied upon but the propriety of that reliance. See Daubert v. Merrell Dow Pharmaceuticals, 113 S. Ct. 2786, 2798 (1993) (referring to vigorous cross-examination, presentation of contrary evidence and careful instructions to the factfinder regarding the burden of proof as the traditional and appropriate means of attacking weak but admissible evidence). Although not favored by this author, one way to resolve the admissibility question is to "cut the baby in half" by putting the keys to ultimate admissibility of otherwise inadmissible information into the hands of the cross-examiner. See International Adhesive Coating Co. v. Bolton Emerson Int'l, 851 F.2d 540, 544–45 (1st Cir. 1988) (imposing burden on opposing counsel to explore and expose weaknesses in the underpinnings of expert testimony). Under this

ing the court to admit, for the limited purpose of explaining the expert's opinion, the facts or data on which the expert relied will ensure that courtroom practice meets the original intent of the drafters of the Rules.

If direct examination may elicit the information underlying an expert opinion, an equally perplexing question involves the rules that should govern its admissibility. In the next section, the Article examines the proper meaning of the phrase "[i]f of a type reasonably relied upon."⁹³

B. Reasonable Reliance Means What It Says

This Article has thus far argued that courts are *authorized* under Rule 703 to admit even inadmissible facts and data in support of the expert's opinion if those facts or data are of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject. I now address the meaning of the phrase "reasonably relied upon,"⁹⁴ a question of particular concern given the proliferation of "consulting" experts in litigation.⁹⁵ This problem remains critical, because neither courts nor scholars are always precise about what they believe "reasonably relied upon" really means.⁹⁶ Some

approach, on direct examination the expert could characterize the facts relied upon but could not divulge their content; the facts would remain undisclosed unless the cross-examiner chose to disclose them. Besides the fact that this deprives the proponent of the opportunity to fully support the expert's opinion on direct examination, this approach works better when the inadmissible information is hearsay than when the information is inadmissible for other reasons. In support of her opinion regarding the cause of roller coaster collapse, a structural engineer could state that she relied on the statements of the roller coaster operators without revealing the content of those statements. The description is placidly neutral, disclosing neither whether the statements were themselves consistent or to what extent some or all were favorable or unfavorable to the party calling the expert. When the accident investigator states that he relied on the damage to the car, the skid marks and the driver's conviction record in determining the cause of the accident, the same degree of neutrality does not exist.

⁹³This is the portion of Rule 703 that purports to define acceptable opinion bases. For the text of Rule 703, see supra note 8.

⁹⁴The final paragraph of the Advisory Committee note suggests that Rule 703 does not contemplate admitting an *opinion* of an accidentologist based on statements of bystanders, since the reasonable reliance requirement would not be met. Query whether the distinction between the accidentologist's opinion and her basis was a carefully considered one, or whether the choice of "accidentologist" was meant to be so ludicrous as to make even admission of her opinion beyond question.

⁹⁵ Expert witnesses abound in modern lawsuits. See Carlson, supra note 1, at 577; see also supra text accompanying notes 2–3.

⁹⁶ See, e.g., Indian Coffee Corp. v. Proctor & Gamble Co., 752 F.2d 891, 895–96 (3d Cir. 1985) (pointing to testimony of the expert that the procedure was "typical," that the information was information the expert would "normally" use and that, when asked, the expert had testified that the information was "worthy," in finding that the plaintiff's expert had complied with Rule 703);

courts, in attempting to impose meaning on the phrase "reasonably relied upon," confuse the question of adequate methodology with the question of reasonable reliance on information used in an approved methodology, a Rule 703 question.⁹⁷

Even before they ascribe meaning to the phrase, courts differ in terms of their approach to resolving this issue. Those following the restrictive view believe that the court must determine whether experts in the field reasonably rely on a given type of data. 98 Those following

see also Carlson, supra note 1, at 577–78. In one sentence, Professor Carlson refers to reasonable ness as the litmus test of the expert's reliance. Id. at 578. Continuing, Professor Carlson subtly changes language, talking about underlying facts or data on which other experts in the field customarily rely. Id. He then states that an appropriate question to the expert might be on what the expert regularly relies. Id. at 588. Then, in describing Judge Weinstein's decision in In re Agent Orange Prod. Liab. Litig., 611 F. Supp. 1223 (E.D.N.Y. 1985), aff'd, 818 F.2d 187 (2d Cir. 1987), Professor Carlson uses the term "normally," describing the type of information normally employed. Id. at 580; see also 3 Weinstein & Burger, supra note 18, at ¶ 703–10 (quoting Project of a Committee of New York Trial Lawyers, Recommendation and Study Relating to the Advisory Committee's Preliminary Draft of the Proposed Federal Rules of Evidence 204 (June 1, 1970)) ("Is the test of 'reasonable reliance' what experts in the field generally rely on, or is the whole function of the hearsay rule to select facts which are really reliable and not facts which people generally rely on?").

⁹⁷ See, e.g., Ealy v. Richardson-Merrell, Inc., 897 F.2d 1159, 1161–62 (D.C. Cir. 1990) (ruling that trial court erred in admitting opinion without legally adequate bases under Rule 703, and concluding that the types of studies relied upon by doctor—chemical, in vitro, and in vivo—in his attempt to establish Bendectin as a teratogenic cannot furnish a sufficient foundation for a conclusion that Bendectin caused the birth defects at issue in this case); see also Judge Clark's concurrence in *Christophersen v. Allied-Signal Corp.*:

[B]oth sentences of Rule 703 apply just to the "facts or data" upon which an expert bases an opinion. Rule 703 does not address "methodology"—how the expert uses the facts or data to form an opinion. Rule 703 does not authorize a court to approve or disapprove the expert's conclusion. The words of Rule 703 allow use of facts or data "of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject. . . ." The court's inquiry is not whether experts in the relevant field would reasonably rely on the particular facts or data used by the expert witness. Nor does Rule 703 require a court to determine whether experts in the field would reasonably rely on the same type of facts or data to reach the expert witness's actual opinion. The rule is met if similar experts use facts or data of the same kind to form opinions on the subject in issue.

939 F.2d 1106, 1118 (5th Cir. 1991) (Clark, J., concurring); cf. Soden v. Freightliner Corp., 714 F.2d 498, 503 (5th Cir. 1983). But see Head v. Lithonia Corp., 881 F.2d 941, 943 (10th Cir. 1989) (interpreting Rule 703 as requiring that the expert rely on methods that other experts in his field would rely on in forming opinions).

98 Courts following the restrictive approach, typified by *In re* Agent Orange Prod. Liab. Litig., 611 F. Supp. 1223 (E.D.N.Y. 1985), *aff'd*, 818 F.2d 187 (2d Cir. 1987), hold that it is the responsibility of the court to make an independent determination whether bases for expert's opinion meet minimum standards of reliability. *See* Advent Systems, Ltd. v. Unisys Corp., 925 F.2d 670, 682 (3d Cir. 1991); United States v. Mest, 789 F.2d 1069, 1073–74 (4th Cir.) (imposing requirement of something more than bare statement by expert), *cert. denied*, 479 U.S. 846 (1986); Barrel of Fun, Inc. v. State Farm Fire & Casualty Co., 739 F.2d 1028, 1033 (5th Cir. 1984) (imposing on the court a duty to evaluate the reliability and trustworthiness of the underlying data); Emigh v.

the liberal approach hold that the courts may not independently determine whether experts in the field reasonably rely on a given type of data. 99 This Article argues that Rule 703 imposes an active obligation on courts to determine the reasonableness of an expert's reliance on otherwise inadmissible facts or data. I propose a uniform standard to be applied in making that determination.

In considering what reasonable reliance by an expert means, one must bear in mind where the court obtains the information on which to base a decision. Typically, a litigant calls an expert and raises questions about some or all of the bases of the expert's opinion. The judge is then obligated to determine if the expert has satisfied Rule 703's reasonable reliance requirement. Usually, information about whether the facts or data are of a type reasonably relied upon comes from one of two sources: testimony from the witness and/or the judge's own knowledge. Where common knowledge comprises the factors constituting expertise or such factors are easily established, judicial notice is appropriate. Where, however, the subject matter of the expertise is

Consolidated Rail Corp., 710 F. Supp. 608, 611 (W.D. Pa. 1989) (cautioning court not to substitute its own view of what constitutes reasonable reliance); see also Head, 881 F.2d at 944 (quoting 3 Weinstein & Burger, supra note 18, at ¶ 703[03]) (concluding that Rule 703 requires the court to make a determination pursuant to Rule 104(a) whether the particular underlying data is of a kind reasonably relied upon by experts in the particular field). Rule 104(a) provides that preliminary questions of admissibility should be resolved by the court. The Supreme Court held that Rule 104(a) questions must be proved by a preponderance of the evidence. Bourjaily v. United States, 483 U.S. 171, 175–76 (1987).

⁹⁹ In re Japanese Elec. Prods., 723 F.2d 238, 276–77 (3d Cir. 1983), rev'd in part sub nom. Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574 (1986), on remand 807 F.2d 44 (3d Cir. 1986), cert. denied, 481 U.S. 1029 (1987); accord DeLuca v. Merrell Dow Pharmaceuticals, 911 F.2d 941, 952 (3d Cir. 1990); see also Peteet v. Dow Chem. Co., 868 F.2d 1428, 1432 (5th Cir.) (suggesting that trial court should defer to the expert's opinion of what data is reasonably reliable), cert. denied, 493 U.S. 935 (1989); Indian Coffee Corp. v. Proctor & Gamble Co., 752 F.2d 891, 897 (3d Cir. 1985) (cautioning the court not to substitute its judgment for that of experts in the field as to what data is appropriate for an expert to rely on in reaching an opinion); Mannino v. International Mfg. Co., 650 F.2d 846, 853 (6th Cir. 1981) (allowing the expert great liberality in determining the basis of her opinions, and holding that the trial court erroneously substituted itself for the factfinder by concluding that the expert did not have a sufficient basis for her opinion); In re Bendectin Prods. Liab. Litig., 732 F. Supp. 744, 748–49 (E.D. Mich. 1990) ("When examining the basis of an expert's opinion pursuant to Fed.R.Evid. 703, a court must determine whether the data underlying it is of the type reasonably relied upon by experts in the field without separately evaluating the trustworthiness of the particular data.").

100 Courts often conclude without stated reasons that the information was the type experts generally rely on. See Kingsley Assocs. v. Del-Met, Inc., 918 F.2d 1277, 1286-87 (6th Cir. 1990).

101 Rule 201 limits judicially noticed facts to those generally known within the territorial jurisdiction of the trial court or capable of ready determination by resort to sources whose accuracy cannot reasonably be questioned. Fed. R. Evid. 201(b). As an example of a scientific principle so firmly established as to have attained the status of scientific law properly subject to judicial notice, the Supreme Court cited the laws of thermodynamics. Daubert v. Merrell Dow Pharmaceuticals, 113 S. Ct. 2786, 2796 n.11 (1993).

unfamiliar to the court, judicial notice is improper unless the proponent of the expert supplies the court with the information necessary to support the requirement that resort to accurate sources renders the information capable of ready determination.¹⁰²

In addition to information the court possesses, the alternative voice of authority on the matter is the expert herself. One plausible solution, then, is for the expert's testimony that the information is "of a type reasonably relied upon" to be dispositive of the issue. Some courts adopt this approach, ¹⁰³ based on the theory that, relative to the judge, the expert has more skill and expertise and thus a better basis to decide whether to draw a particular inference or not. ¹⁰⁴

On the other hand, permitting the expert to determine whether reliance is reasonable allows the expert to control the admissibility of evidence, putting the responsibility of determining the admissibility of evidence in the wrong place. What expert will rely on inadmissible facts but deny the reasonableness of that reliance? Particularly in an era where litigants are consulting experts with greater regularity, the risk increases that by hiring an expert parties can channel otherwise inadmissible evidence to the jury, bypassing the judge's usual gatekeeping function. 105

¹⁰² Daubert, 113 S. Ct. at 2796 n.11. In Petest v. Dow Chemical Co., the court of appeals upheld the admissibility of an expert toxicologist's testimony about the cause of death, taking judicial notice that the facts relied upon by expert were "those usually considered by medical experts." 868 F.2d 1428, 1432 (5th Cir. 1989), cert. denied, 493 U.S. 935 (1989). Query whether either of the requirements of Rule 201 were met. In In re Agent Orange Prod. Liab. Litig., 611 F. Supp. 1223, 1248 (E.D.N.Y. 1985), aff'd, 818 F.2d 187 (2d Cir. 1987), the court took judicial notice that no reputable physician relies on hearsay checklists by litigants; see also State v. Henze, 356 N.W.2d 538, 540 (Iowa 1984), where the court, over dissent, took judicial notice that physicians customarily rely on records prepared by other doctors in forming opinions about a patient's medical condition.

¹⁰³ See United States v. L.E. Cooke Co., 991 F.2d 336, 342 (6th Cir. 1993) (leaving to trier of fact the question of whether the expert's basis of opinion is adequate).

¹⁰⁴ See Greenwood Utils. Comm'n v. Mississippi Power Co., 751 F.2d 1484, 1495 (5th Cir. 1985) (putting burden on court to make a threshold determination of whether the data relied upon by the expert is of a type reasonably relied on by experts in that field, but suggesting that the court ought to accord deference to the expert's view on that question). Indeed, the Supreme Court has recently suggested that the fact that experts can testify without a requirement of personal knowledge supports this approach. Daubert, 113 S. Ct. at 2796 (citing the Fed. R. Evid. 602 advisory committee's note for the proposition that the personal knowledge requirement is "a 'most pervasive manifestation' of the common law insistence upon 'the most reliable sources of information'" and suggesting that abandoning that requirement for experts is "premised on an assumption that the experts will have a reliable basis in the knowledge and expertise of his discipline").

See Imwinkelreid, *supra* note 32, at 6–9 for collection of cases; see also Wilson v. Merrell Dow Pharmaceuticals, 893 F.2d 1149, 1153 (10th Cir. 1990), for the suggestion that popularity of a particular scientific technique also factors into the equation, thus leading to a blurring of Rule 703 and Rule 702 inquiries.

 $^{^{105}\,\}mathrm{ln}$ an effort to address this problem, one scholar argues that each expert must affirm not

Alternatively, judges could apply Rule 703 by reading it to mean "regularly" rely. ¹⁰⁶ To the extent that the Advisory Committee designed Rule 703 to harmonize the courtroom and real life, evidence that experts in the field regularly rely on the particular type of facts or data becomes persuasive. Experts in the field generally do not work with testifying in mind. ¹⁰⁷ Testimony that experts in the field regularly use the particular facts or data in any given case creates a strong inference that Rule 703 is satisfied. ¹⁰⁸

Some courts follow this approach to a limited extent: they greatly defer to the expert in deciding the reasonableness of her reliance on a particular fact, yet they retain authority to overrule the expert. 109 Still

just that the information is of a type reasonably relied upon by experts in the field but also that he or she *personally* relies on the type of information at issue. Carlson, *supra* note 1, at 587–88 (asserting that it is error for expert to fail to mention personal reliance); *see also* Carlson, *supra* note 11, at 860 n.7 (citing cases that have permitted full disclosure of basis of expert testimony based on sole fact that expert considered the information in reaching her conclusion).

¹⁰⁶ See Imwinkelreid, supra note 32, at 18 (suggesting that the standard is what is customary, and citing *In re* Japanese Elec. Prods., 723 F.2d 238, 275–79 (3d Cir. 1983), for the proposition that what is customary is dispositive under Rule 703).

¹⁰⁷The proliferation of consulting experts is a troubling one. *See supra* text accompanying notes 1–6; *infra* note 124; *see also* State v. Rolls, 389 A.2d 824, 824 (Me. 1978) (to be admissible, data must be of a type which experts in the field rely upon for "purposes other than testifying in a lawsuit").

108 In International Adhesive Coating Co. v. Bolton Emerson International, 851 F.2d 540, 545 (1st Cir. 1988), the court approved the expert's sources of information, calling them both normal and reasonable. See also Christophersen v. Allied-Signal Corp., 939 F.2d 1106, 1130 n.34 (5th Cir. 1991) (Reavley, J., dissenting) (distinguishing facts or data "of a type reasonably relied upon by experts in the particular field" from those which are of "the same type as are relied upon by other experts in the field," and pointing out that while the difference is subtle, an expert might "reasonably" rely on types of facts or data that are not—or not yet—of exactly the "same" type as are relied upon by other experts) (emphasis added).

109 Smith v. Ortho Pharmaceutical Corp., 770 F. Supp. 1561, 1569–70 (N.D. Ga. 1991) (quoting *In re* Agent Orange Prod. Liab. Litig., 611 F. Supp. 1223, 1245 (E.D.N.Y. 1985), aff d, 818 F.2d 187 (2d Cir. 1987)). At least one court has implied that even if the sources are of the sort reasonably relied upon, the expert's reliance is still subject to judicial scrutiny. In *Christophersen*, 939 F.2d at 1114, the court stated:

If the dosage of the harmful substance and the duration of exposure to it are the types of information upon which experts reasonably rely when forming opinions on the subject, then the district court was justified in excluding Dr. Miller's opinion that is based upon critically incomplete or grossly inaccurate dosage or duration data. (citations omitted).

In an earlier section, the court discussed the authority of a court to review the scientific basis (or methodology) of the expert's testimony and suggested that the inquiry about the adequacy of such sources was governed by Rule 703. Id. at 1113. In a section entitled "Rule 703," the court noted that, generally, questions about the scientific basis of an expert's testimony affect weight, not admissibility. Id. (quoting Slaughter v. Southern Talc Co., 919 F.2d 304 (5th Cir. 1990)). The court observed, however, that this rule yields when the source of the expert's reliance is of such little value that the opinion would not assist the jury in reaching a sound and just verdict. Id. "In such case, [the court should] examine the reliability of an expert's sources to determine whether they satisfy the threshold established by the rule." Id. at 1114.

other courts make an independent judgment of whether the facts or data underlying the expert's opinion are reliable. 110 Ordinarily, in assessing the admissibility of evidence, asking whether information is reliable amounts to asking whether it is trustworthy.¹¹¹ Although tempting, this approach ultimately provides too narrow a solution. Much, though not all, of the inadmissible information experts rely on is hearsay.¹¹² The Supreme Court has held that reliable hearsay is admissible. 113 By extension, inadmissible hearsay is presumptively unreliable. 114 It would then seem to follow that none of the inadmissible hearsay relied upon by experts could be found reliable, and none would meet the requirements of Rule 703.115 Thus, under this alternative, once the judge determines that the hearsay information relied upon by the expert is inadmissible, the judge has implicitly-and perhaps inadvertently-answered the question of its "reliability." The information should therefore be inadmissible for all purposes, including the purposes of Rule 703. Yet courts have found expert reliance on otherwise inadmissible hearsay to meet the requirements of 703, and rightly so.¹¹⁶ Rule 703 is

¹¹⁰ Many courts take this approach. E.g., Gong v. Hirsch, 913 E.2d 1269, 1272–73 (7th Cir. 1990) (finding trustworthiness of underlying data relevant to task of assessing reliability of opinion); Head v. Lithonia Corp., 881 F.2d 941, 944 (10th Cir. 1989) (requiring district court to determine if bases meet minimum standards of reliability); Greenwood Utils. Comm'n v. Mississippi Power Co., 751 F.2d 1484, 1495 (5th Cir. 1985) (including as within proper judicial inquiry the reliability of the underlying data); Barrel of Fun, Inc. v. State Farm Fire & Casualty Co., 739 F.2d 1028 (5th Cir. 1984) (holding expert testimony inadmissible because based solely on a psychological test that was not shown to be reasonably trustworthy); see also 3 Weinstein & Burger, supra note 18, at ¶ 703[01] (suggesting that "reasonable reliance" may mean "really" reliable not merely "generally relied upon"). See Rice, supra note 11, at 589 for the suggestion that "reasonable reliance" should be read to require both reliable information and a reliable method of acquisition. Professor Rice suggests that the problem in In re Agent Orange Prod. Liab. Litig., 611 F. Supp. at 1223, was not the nature of the information (personal medical history) but rather the means of acquisition (checklists). Id. at 589.

¹¹¹In Daubert v. Merrell Dow Pharmaceuticals, 113 S. Ct. 2786, 2795 & n.9 (1998), the Court ruled that, for purposes of determining the scientific suitability of evidence, the requirement of reliability was equivalent to trustworthiness. *See also* Bourjaily v. United States, 483 U.S. 171, 179 (1987) (holding that hearsay, although presumed unreliable, is admissible upon proof of trustworthiness).

¹¹²In Emigh v. Consolidated Rail Corp., 710 F. Supp. 608, 611 (W.D. Pa. 1989), the court stated that Rule 703 is like a hearsay exception: disclosure of the source underlying an expert's opinion requires trustworthiness and reliability.

¹¹³ Bourjaily, 483 U.S. at 179 (approving admission of otherwise inadmissible hearsay if circumstantial guarantees of trustworthiness are shown).

¹¹⁴ Hearsay requirements have been substantially relaxed over this century. If hearsay information cannot pass muster under these relaxed standards, its reliability is highly questionable. Inwinkelreid, *supra* note 32, at 31; *see also* 3 Weinstein & Burger, *supra* note 18, at ¶ 703[01] (suggesting that Rule 703's requirement is less rigorous than the hearsay requirement).

¹¹⁵ See, e.g., Emigh, 710 F. Supp. at 613 (rejecting as unreliable expert's description of reports of two unavailable physicians).

¹¹⁶ Weinstein and Burger state that Rule 703 contemplates the existence of facts which do not meet the trustworthiness requirements of the hearsay rule, but which are nevertheless

concerned with the suitability of the information relied upon by the expert in support of her opinion, not with the suitability of the information for resolving the ultimate issues in the lawsuit.¹¹⁷

Even where the information relied on by the expert is inadmissible for reasons other than hearsay, focusing on the reliability of the evidence can be a misleading way to resolve Rule 703 questions. Instead, the court should assess reliability of the data in the context of assessing the reasonableness, given the inquiry facing the expert, of reliance on that data. For example, a defendant's prior conviction for child molestation is a reliable source of information about the defendant's prior conduct. A social worker could reasonably rely on that information in denying a foster care placement. The social worker's reliance on that information to form an opinion about the defendant's guilt in a separate criminal matter would be unreasonable. Reliability would not serve as the sole determinant of reasonableness.

As with the resolution of any tough question, determining the standard for compliance with "reasonably relied upon" requires accommodation of competing values. Reliability of the underlying data, though not dispositive, must be considered. A growing trend imposes on judges the obligation to ensure that only reliable evidence comes before the factfinder. The technical abilities of judges must also be considered, for legal expertise is not concomitant with scientific expertise. Imposition of a gatekeeping function on judges should not discourage experts from continuing to search for scientific truths.

sufficiently reliable for evaluation by an expert. 3 Weinstein & Burger, supra note 18, at ¶ 703[01] (1990); see also supra notes 69–71 and accompanying text.

¹¹⁷The distinction between using evidence for all purposes and using it for a limited purpose is at the heart of Rule 105. For the text of Rule 105, see *supra* note 53.

¹¹⁸ Daubert v. Merrell Dow Pharmaceuticals, 113 S. Ct. 2786, 2795 (1993) (requiring a trial judge to ensure that all scientific testimony or evidence be relevant and reliable). In *Daubert*, the Court stated that, for purposes of complying with Rule 702, the requirement that an expert's testimony pertain to "scientific knowledge" establishes a standard of evidentiary reliability. *Id.* It is interesting to note that in *Daubert* the Court removed the determination of scientific suitability from the hands of the experts (rejecting the *Frye* general acceptance test) and placed it in the hands of judges, but relinquished the reliability inquiry to a determination that the testimony pertain to "scientific knowledge." *Id.*

¹¹⁹ See id. at 2800 (Rehnquist, C.J., concurring in part and dissenting in part) (expressing concern that gatekeeping function assigned to judges in area of scientific testimony will impose obligation on judges to become amateur scientists).

¹²⁰ This possibility was acknowledged but rejected by the Supreme Court. *Id.* at 2798–99 (finding that the Rules of Evidence may on occasion prevent the jury from learning of authentic insights and innovations, but determining that the balance is appropriate; the Rules of Evidence are "designed not for the exhaustive search for cosmic understanding but for the particularized resolution of legal disputes").

Instead of focusing solely on the reliability of the information or on the regularity with which experts rely on such information, a better approach is to read Rule 703 as requiring what it says. The expert's reliance in the particular case must be reasonable. Thus, the Rule should focus on the expert,121 and why the expert acted, rather than on the evidence. 122 Regular reliance by experts in the field is strong evidence that merits deference by the court. Alone, though, regular reliance does not establish reasonable reliance. For example, where the expert possessed weak qualifications or utilized a questionable methodology, the court should carefully apply the reasonable reliance standard, particularly where the sole evidence on the topic is the testimony of the expert. 125 Reasonable reliance is established when the court is convinced not just that other experts in the field regularly rely on similar information in arriving at opinions and conclusions formed for non-litigation purposes, 124 but that the reliance by this expert in this case is reasonable.

¹²¹ See Rice, *supra* note 11, at 589, for proposition that "reasonable reliance" should be read to require that both the information and the manner of acquisition be reliable.

122 Indeed, where the data relied upon involve assumptions, there can be no inquiry into reliability of the data. For example, in Shatkin v. McDonnell Douglas Corp., 727 F.2d 202, 208 (3rd Cir. 1984), the court excluded as unrealistic and contradictory the assumptions made by plaintiff's economics expert that decedent would have contributed 20% of his disposable income for life to plaintiff. The 20% figure was derived from statistics indicating that the average head of household spends 20% of his income on himself. The statistics were not challenged as unreliable; rather, the challenge granted by the court was to the reasonableness of relying on them in the case at hand. See also Sparks v. Gilley Trucking Co., 992 F.2d 50, 54 (4th Cir. 1993) (authorizing court to refuse to allow generally qualified expert to testify if factual assumptions are not supported by the evidence).

Separating the inquiry into reliability of process and reliability of substance is not new. In United States v. Lundy, 809 F.2d 392, 395 (7th Cir. 1987), the court stated that an arson expert cannot testify to hearing from an informant that the defendant had set fire to the building as his basis for concluding that in his expert opinion the defendant had probably set the fire. Depending on the identity of the informant, the information might be highly reliable. The court, however, did not consider that point. *Id*.

123 For example, a likely witness in a case involving infectious blood would be a hematologist. An M.D. with no training in hematology might be found to qualify as an expert, but the basis of that expertise would often be weaker than that of an M.D. with completed training in hematology. Where the M.D. without training in hematology is the only source of evidence about whether reliance on disputed facts was or was not reasonable, the court should put greater weight on factors such as whether reliance on such factors has been tested and found appropriate, or whether reliance on such evidence has been subjected to peer review, and if so, the results of such review. See supra note 78; infra notes 124–28 and accompanying text.

124 Recent years have seen a proliferation of consulting experts, those hired purely with litigation in mind. One court has characterized the role of scientific testimony by expert witnesses on the issue of causation in products liability litigation as "vital." Smith v. Ortho Pharmaceutical Corp., 770 F. Supp. 1561, 1565 (N.D. Ga. 1991). Because the potential for abuse exists, courts must scrupulously apply the reasonable reliance standard. If the facts or data are of a type reasonably relied upon, the basis is admissible, subject to Rule 403. If not, Rule 703's requirements

In this context, the Supreme Court's recent decision in *Daubert v. Merrell Dow Pharmaceuticals*¹²⁵ is helpful. ¹²⁶ Although the reasonable reliance inquiry differs from, and should come after, the type of inquiry at issue in *Daubert*, ¹²⁷ courts may draw guidance from *Daubert* standards in resolving Rule 703 questions. ¹²⁸ Intentionally or not, *Daubert* moved

are not met. Careful application of the standard should suffice; fashioning a separate rule for consulting experts (as opposed to experts hired after having developed their opinions) is cumbersome and difficult to apply. An argument could be made that experts hired in contemplation of litigation could be subject to different standards, much as Rule 803(6), the business records exception to the hearsay rule, has historically been read to except from its coverage those records made in contemplation of litigation. The difficulty with this analogy is that the line between records created in contemplation of litigation and those not is easier to discern and more appropriate to draw than in the case of experts. This dilemma has caught the attention of at least one court. See Emigh v. Consolidated Rail Corp., 710 F. Supp. 608, 612 (W.D. Pa. 1989) (rejecting efforts of expert to testify to reports of two unavailable experts, and noting that allowance would create a slippery slope); see also Daubert v. Merrell Dow Pharmaceuticals, 951 F.2d 1128, 1130 (9th Cir. 1991) (in finding Rule 703's requirements not to have been met, the Court included among its reasons the fact that the expert's analysis was generated solely for use in litigation), vacated, 113 S. Ct. 1786 (1993).

Scientific studies conducted in anticipation of litigation must be scrutinized much more carefully than studies conducted in the normal course of scientific inquiry. This added dose of skepticism is warranted, in part, because studies generated especially for use in litigation are less likely to have been exposed to the normal peer review process, which is one of the hallmarks of reliable scientific investigation. Daubert, 951 F.2d at 1131 p.3

v. United States, 293 F. 1013, 1014 (D.C. Cir. 1923), that a scientific technique is inadmissible unless the technique had been generally accepted as reliable in the relevant scientific community. Instead, the *Daubert* Court stated that Rule 702 governs the inquiry, informed by a range of criteria, including but not limited to 1) whether the scientific technique can be (and has been) tested; 2) whether the theory or technique has been subjected to peer review and publication; 3) the known or potential rate of error of the particular scientific technique; 4) the existence and maintenance of standards controlling the technique's operation; and 5) whether the technique has been generally accepted in the scientific community. 113 S. Ct. at 2796. The standard for deciding these questions is Rule 104(a), *id.*, but the Court in *Daubert* never mentioned how a court is to evaluate the proffered evidence. Thus, the questions are not unlike those posed by Rule 703. Is validity the same as reliability? Should the expert's assertion be controlling?

126 Separate from the issue of whether the *Daubert* standards are useful in the analysis of Rule 703 questions, it is clear that Rule 703 is intricately tied into Rule 702 in that the latitude in Rule 703 (reasonably relied upon by experts in the particular field) is arguably based on the belief that an expert is qualified to distinguish among acceptable information and unacceptable information. This belief is dependent on the expert's qualifications and ultimately on the legitimacy of the field of expertise. Where the field of expertise is less well-established, the court should look for greater unanimity of expert reliance or a stronger showing that the data are trustworthy. Similarly, where the field of expertise is well established, but the expert's qualifications are meager, the court should look for corroborating signs that reliance is reasonable. This can come from comparisons to the practice of other experts, or through examination of the type of data relied upon.

127 Daubert addressed the appropriateness of the expert's testimony pursuant to Rule 702. 113 S. Ct. at 2796. For the text of Rule 702, see *supra* note 46.

¹²⁸ Because this does not involve an issue of relevancy conditioned on fact, courts should evaluate the Rule 703 inquiry pursuant to Federal Rule of Evidence 104(a). See supra note 125.

the inquiry regarding the acceptability of expertise from outside the courthouse, where scientific judgments are usually made, to the inside of the courthouse. Informed by, yet independent of, what experts do outside of court, the judge decides if the scientific expertise merits admissibility in the courtroom. This approach implies a distinction between a courtroom and a scientific laboratory. And just as the *Daubert* approach is appropriate for Rule 702 purposes, authorizing judges to evaluate science from a legal perspective, the *Daubert* approach should also be appropriate for Rule 703 purposes.

In assessing whether the expert's reliance is reasonable, proponents should address and courts should evaluate the following factors:

1) Has reliance on the otherwise inadmissible evidence been tested and shown to be appropriate?

2) Has reliance on the type of information in question been subject to peer review?

3) Has an error rate for such reliance been determined, i.e., are there identifiable standards that control the reliance on such evidence? and 4) Is there substantial acceptance of the practice of relying on this type of evidence in coming to an opinion such as the one that the expert comes to in the pending case?

The proposed approach would focus the initial inquiry outside the courtroom. It would permit the court to determine if the practice in the field, though regular, is sloppy and lazy, and hence inappropriate for admission into a court of law or whether the practice reflects an appropriate balancing of competing professional interests. 130

If, in assessing these criteria, the court finds the expert's reliance reasonable as a general matter, the court should then inquire whether reliance was reasonable given the issues facing the expert in this particular matter. In resolving this question, the court should assess the importance or necessity¹³¹ of the otherwise inadmissible evidence to

¹²⁹ Most modern courts replaced *Frye*'s "general acceptance" test with a "substantial acceptance" test. *See supra* note 76.

¹⁸⁰ The burden would be on the judge to insist on testimony addressing the four factors (testing, peer review, error rate, and substantial acceptance), which would force the testifying expert (unless she lies) to disclose the information from which a judge could discover sloppiness or laziness.

¹⁹¹ The notion that necessity enters into the admissibility decision is not new. See United States v. Aluminum Co. of America, 35 F. Supp. 820, 823 (S.D.N.Y. 1940) (admitting basis of opinion upon showing of necessity and adequate guarantees of trustworthiness); see also In re Agent Orange Prod. Liab. Litig., 611 F. Supp. 1223, 1246 (E.D.N.Y. 1985) (noting that necessity is a consideration in justifying reliance on hearsay to render expert advice), aff'd, 818 F.2d 187 (2d Cir. 1987); Marvin Katz, Comment, The Admissibility of Expert Medical Testimony Based in Part Upon Information Received From Third Persons, 35 S. CAL. L. Rev. 193 (1962). Rule 703 does not require a showing of necessity. 3 Weinstein & Burger, supra note 18, at ¶ 703–11 to 703–13, suggests that part of the reason for the medical exception was the time and expense involved in requiring the production of authenticating witnesses, and that for valuation experts, the excep-

the opinion of the expert and the importance or necessity of the otherwise inadmissible evidence to the factfinder's understanding of that opinion. Information essential to the opinion should be presented to the jury, 132 subject to Rule 403.133 Preventing the jury from hearing the information is unfair to the proponent of the expert. If the expert did not need the evidence, but did, in fact, use it, then the court should balance the importance of the evidence to the jury against the likelihood that the jury will be improperly influenced by the evidence. 134

In all cases, the proponent of the evidence bears the burden of proving the reasonableness of the expert's reliance. ¹³⁵ In the absence of proof that experts in the field regularly rely on the particular facts or data, the proponent of the testimony bears the burden of establishing reasonable reliance through other proof. ¹³⁶

III. Conclusion

This Article has argued that Rule 703 has been misunderstood and misapplied during its twenty-year history. Whereas courts have disagreed about whether to admit inadmissible bases of expert testimony, this Article has argued that courts should admit them, for a limited purpose and subject to Rule 403. This Article has also argued that the "reasonable reliance" language of Rule 703 has been misunderstood and should be read to require what it says and no more: that the expert's reliance be reasonable. Interpreted this way, Rule 703 will be truer to its historical background, to the legislative intent, and to the spirit behind enactment of the Federal Rules of Evidence.

tion was based on necessity—an opinion based on hearsay is the only practical means of arriving at any estimate of value.

¹⁸²The evidence should be limited to use as support for the opinion, not as full substantive evidence. *See supra* notes 88–91 and accompanying text.

¹⁵³ See supra note 37.

¹³⁴ Improper effects include, *inter alia*, unfair prejudice, confusion, and the inability to distinguish the limited value of the evidence.

¹³⁵ Many courts find an absence of complaint or contrary evidence sufficient to conclude that Rule 703 has been met. Kingsley Assocs. v. Del-Met, Inc., 918 F.2d 1277, 1286 (6th Cir. 1990) (finding no showing in the record that the information was not the type on which an expert would rely); see also Indian Coffee Corp. v. Proctor & Gamble Co., 752 F.2d 891, 897 (3d Cir. 1985) (finding that district court erred in striking testimony of experts because there was "no evidence casting any doubt on the testimony of the valuation experts that experts rely on the information they relied upon") (emphasis added). This unfair burden-shifting is an implicit consequence of the liberal approach.

Rule 703. Several courts seem to imply that it is so. See, e.g., Peteet v. Dow Chemical Co., 868 F.2d 1428, 1432 (5th Cir.) (taking judicial notice that facts relied upon by expert were "those usually considered by medical experts"), cert. denied, 110 S. Ct. 328 (1989).