

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WISCONSIN

AMERICAN FAMILY MUTUAL
INSURANCE COMPANY, et al.,

Plaintiffs,

v.

ELECTROLUX HOME PRODUCTS, INC.,

Defendant.

OPINION AND ORDER

11-cv-678-slc

In this set of consolidated dryer fire lawsuits, defendant Electrolux has moved to preclude the testimony of plaintiffs' expert witnesses: W. Joseph Fallows, Michael R. Stoddard, Jr. and Eric J. Boelhouwer, Ph. D., pursuant to Fed. R. Evid. 702 and *Daubert v. Merrell Dow Pharmaceuticals*, 509 U.S. 579 (1993). *See* *dk. 127*.¹ The court has read the expert reports and considered the parties' briefs and other submissions. I am granting the motion in part and denying it in part in the manner and for the reasons stated below:

I. Legal Standard

The admission of expert testimony is governed by Federal Rule of Evidence 702 and the principles announced in *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993). Rule 702 states:

¹ Although Electrolux indicates in its motion that it is seeking to bar the testimony of these experts *in toto*, its brief does not separately challenge each opinion offered by each expert. For example, Electrolux does not raise any specific objection to Dr. Boelhouwer's testimony that the phrase "interior of the dryer" on Electrolux's product warning is ambiguous or to his ultimate conclusion that the lack of an adequate warning renders the dryers unreasonably dangerous. In addressing the instant motion, I have considered only those specific challenges raised by Electrolux in its brief. I will not speculate as to where we might land *in limine*.

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

- (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case.

See also Daubert, 509 U.S. at 589-95 (explaining framework for evaluating expert testimony).

II. Michael Stoddard

Plaintiffs have disclosed Michael Stoddard, of the Wright Group, as an expert witness on the subjects of defective design of the dryers at issue in these consolidated cases, and the adequacy of Electrolux's warnings. Stoddard has a Bachelor of Science in Arson Investigation, and is a certified fire investigator through the International Association of Arson Investigators and a certified fire and explosion investigator through the National Association of Fire Investigators. Since April 2006, Stoddard has been employed by the Wright Group, Inc. as a fire analyst, where he is responsible for cause and origin investigations and forensic evidence analysis and testing, especially as it relates to dryer fires.

Stoddard has extensive professional experience with dryer fires, having investigated hundreds of them. His methodology includes applying the scientific method to determine what may have caused a particular fire, as well as the examination and testing of both burned and unburned dryers to analyze their components, operation, design and maintenance. Stoddard has examined more than 500 Electrolux gas and electric dryers, analyzing their design, their

modes of operation and their failures. Stoddard has test-run these dryers for over 1,000 hours. He has authored more than 80 reports concerning these dryers. In addition, Stoddard has attended over 60 hours of training courses and seminars specifically related to appliances and dryers and he has performed forensic testing on dryers by other manufacturers.

Electrolux asks the court to preclude Stoddard from testifying to the following opinions:

- (1) The subject dryers' design is defective because it allows lint to accumulate in areas where it is in close proximity to the dryers' heat source, and this defect could have been remedied by a simple design alternative;
- (2) The design is defective because Electrolux opted to use HB plastic rather than 5V plastic or steel for certain components, thereby adding additional fuel to a fire in the event that a fire starts in the dryer; and
- (3) Electrolux's warnings are inadequate.

A. Defective Design: Lint Accumulation

Stoddard's opinions regarding the hazard posed by the accumulation of lint in the subject dryers and his proposed design alternative were formed in large part based upon his examination and testing of numerous "exemplar dryers," which consisted of burned Electrolux dryers that had been sent to him for examination after a fire, and unburned dryers that Stoddard purchased new or used. From his examinations of these dryers, Stoddard concluded that, although all dryers accumulate lint, Electrolux has designed its driers in a way that allows lint to accumulate near the heat source where the lint can easily ignite. Stoddard has developed and tested an alternative design that reduces the amount of lint accumulation by adding a barrier that prevents lint behind the drum from coming into contact with the heat source.

Electrolux first argues that this court should exclude all of Stoddard's opinions because his expertise lies in fire analysis; therefore he is not qualified to offer opinions regarding engineering, product design, plastics, or warnings. Although it is true that Stoddard is not trained as an engineer, Rule 702 does not demand such a precise correlation between an expert's education and the opinions he offers. As set forth in Fed. R. Evid. 702, a witness may qualify to offer an expert opinion by virtue of his or her "knowledge, skill, experience, training, *or* education." As one district court explained: "That proposition is really a two-sided coin—abstract academic credentials (no matter how impressive) should not be overvalued if not apropos to the zone of expertise required, while at the same time relevant practical experience should not be undervalued if pertinent." *Dewick v. Maytag Corp.*, 324 F. Supp. 2d 894, 897 (N.D. Ill. 2004) (citing *Smith v. Ford Motor Co.*, 215 F.3d 713, 718 (7th Cir. 2000)). The court must consider the proposed expert's "full range of practical experience" as well as his or her academic or technical training when deciding whether the expert is qualified to render an opinion in a particular area. *Smith*, 215 F.3d at 718. *See also Tyus v. Urban Search Mgmt.*, 102 F.3d 256, 263 (7th Cir. 1996) ("[G]enuine expertise may be based on experience or training. In all cases, however, the district court must ensure that it is dealing with an expert, not just a hired gun.").

I am satisfied that Stoddard has ample practical experience that qualifies him as an expert with respect to the cause and origin of the subject fires as well as dryer design and safety. Stoddard has spent a decade testing and examining dryers, fires associated with those dryers, dryer design, dryer operation, and dryer failure modes, Stoddard has similar experience assessing accepted warning label or product literature. Based on Stoddard's many hours of hands-on

experience, numerous physical examinations, and testing of various manufacturers' dryers (especially the Electrolux dryers at issue in this case), as well as his knowledge of industry practice and developments in the field of dryer design, I am satisfied that Stoddard is qualified to offer an opinion regarding the hazards posed by the subject dryers and the existence of safer design alternatives.²

Second, Electrolux contends that Stoddard's opinion concerning the defective design of its dryers is unreliable because: 1) Stoddard knew nothing about the operational history, installation or maintenance of many of the exemplar dryers on which he relied in forming his opinion; 2) Stoddard has not conducted lint accumulation testing; 3) Stoddard was able to recreate a fire in an Electrolux dryer only by introducing lint to the heat source; and 4) Stoddard did not examine a representative sample of the relevant population of Electrolux dryers.

In evaluating whether a proposed's expert's testimony is reliable, the court should ensure that the expert "employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." *Kumho Tire Co.*, 526 U.S. at 152. The court must ensure that the expert used a valid methodology, sufficient data justified the use of the methodology, and the expert applied the methodology appropriately. *Stollings v. Ryobi Technologies, Inc.*, 725 F.3d 753, 765 (7th Cir. 2013). The court has considerable leeway in determining whether particular expert testimony is reliable. *Manpower, Inc. v. Ins. Co.*, 732 F.3d

² While not binding on this court, at least two other courts have reached this same conclusion. See, *State Farm Fire & Cas. Co. v. Electrolux Home Products, Inc., et al.*, Case No. 10-cv-3901-jfb-akt (tr. of hearing, Aug. 22, 2012) and *State Farm Gen. Ins. Co. v. Electrolux Home Products, Inc., et al.*, Sup. Ct., County of Los Angeles, North Central District, Case No. EC053578, (tr. of hearing June 13, 2012), attached as Exhs. 1 and 2 to plt.'s brief in opposition, dkt. 135. See also *State Farm Fire & Cas. v. Electrolux Home Products, Inc.*, 2013 WL 3013531 (N.D. Ind., June 17, 2013) (deeming similar expert testimony of Ronald Parsons, Stoddard's colleague at the Wright Group, to be reliable).

796, 806 (7th Cir. 2013). However, there must be a “link between the facts or data the expert has worked with and the conclusion the expert's testimony is intended to support.” *United States v. Mamah*, 332 F.3d 475, 478 (7th Cir. 2003). Various factors to consider, to the extent they apply, include whether a theory or technique can be and has been tested, whether it has been subjected to peer review and publication, and whether it is generally accepted. All this being so, no definitive checklist exists; the inquiry is flexible. *See Daubert*, 509 U.S. at 593–94.

Applying these considerations to Stoddard’s opinions, I am satisfied that he reached his defective design theory as a result of reliable methods and that sufficient facts and data exist to support his conclusions. Stoddard’s opinion that the lint in the subject dryers accumulates near the heat source was derived from physical examinations of over 100 Electrolux dryers, all of which were documented and photographed. Stoddard’s determination that the fires at issue originated when lint ignited upon contact with the heat source was derived after a thorough cause and origin investigation utilizing the scientific method, the validity of which Electrolux does not challenge. Electrolux complains that the exemplar pool was not “representative” but it doesn’t say why not: as it acknowledges, Stoddard examined used, unburned Electrolux dryers as well as burned dryers.

Electrolux’s objection to Stoddard’s failure to perform lint accumulation testing misses the mark. According to Stoddard, the problem with the design of Electrolux’s dryers is not how much lint they accumulate but *where* the lint accumulates. It is further Stoddard’s opinion that, because it is reasonably foreseeable that some dryer owners may not properly vent or clean their dryers and thereby may fail to prevent excessive lint build-up, Electrolux should have accounted for that risk when designing its dryers. Stoddard notes a 2003 study by the Consumer Product

Safety Commission which found that lint accumulates inside a dryer even when the lint screen has been cleaned after each use and the dryer is properly exhausted. Given the nature of the alleged defect Stoddard has identified, the fact that he did not test or control for various factors that can affect the *amount* of lint that accumulates does not impact the scientific validity or relevance of his opinion.

Finally, given the otherwise-scientifically sound methods that Stoddard used to reach his conclusions, his opinion is not rendered inadmissible by the mere fact that he was unable to recreate a lint-ignited dryer fire in an Electrolux dryer without physically introducing a piece of lint to the heat source. As he explained at his deposition, Stoddard Dep., dkt. 128-9, at 210-11, it would cost unknown amounts of time and money to run numerous dryers continuously until a fire spontaneously ignited in one of them. Electrolux is free to attempt to discredit Stoddard's test methods at trial, but these methods are not so unreliable as to be inadmissible. *Stollings*, 725 F.3d at 765 (district judge's gatekeeping role does not extend to reliability of expert conclusions; that conclusions can be impeached does not mean the testimony is unreliable).

B. Defective Design: Plastic Components

Electrolux attacks Stoddard's opinion that the subject dryers were defectively designed because certain components were composed of HB-rated plastics instead of plastics treated with fire retardant or other materials. Electrolux argues that Stoddard's opinion rests on nothing more than a test that exposed the plastics to a flame for a maximum of 60 seconds, which is not a predictor of how these plastics would perform in a "real-world" dryer fire.

This is not an accurate characterization of the foundation for Stoddard's opinion. In addition to the component burn testing to which Electrolux refers, Stoddard's opinion is based on fire containment testing of an Electrolux dryer during which HB plastics melted and flowed out of the dryer cabinet, and on his knowledge of alternative dryer designs that use metal components instead of the plastics used in the subject Electrolux models. In addition, Stoddard's training and experience as a fire and cause analyst, with his special emphasis on dryer fires, makes him qualified to offer an opinion regarding the overall effect on a fire if the fire came into contact with a fire-retardant, self-extinguishing plastic versus an inflammable plastic that continued to burn. As plaintiffs correctly point out, *see* Br. in Opp., dkt. 135, at 10, Stoddard does not offer opinions regarding the makeup of particular plastics, how the plastics themselves are manufactured or how a particular plastic failed, such that the opinion would require some expertise in plastics engineering. Rather, Stoddard's opinion regarding Electrolux's use of plastics is narrow: in most conditions, the use of an alternate plastic or metal would have been more effective at reducing a fire's spread and containing the fire to the cabinet. I am satisfied from Stoddard's reports that there is a sufficient link between his testing and review of alternate designs and his opinion regarding the risk posed by Electrolux's choice of certain plastics for some of the dryer components.

That said, the relevance of Stoddard's opinion regarding fire containment (as opposed to fire ignition) is not clear. Without knowing the specific facts of each fire at issue in this case, the court cannot determine if testimony regarding fire containment would assist the jury in determining any fact at issue in this case. Electrolux is free to re-assert its relevance objection after the record has been more fully developed, either at summary judgment or trial.

3. Warnings

In his report, Stoddard offers several opinions about the efficacy of Electrolux's warnings and user instructions in preventing the risk of fire posed by the dryers' alleged problem with lint accumulation. Stoddard has opined that the Electrolux warnings are inadequate because: 1) Electrolux did not include a warning to have the dryer serviced every 18 months on the on-product labels of every subject dryer model; 2) Electrolux did not include instructions on how to remove lint in areas inaccessible to the user; 3) it is foreseeable that users will not comply with the requirement that they service the dryer every 18 months; 4) Electrolux failed to comply with voluntary standards regarding warnings and instructions; and 5) Electrolux should have implemented engineered active warning devices to warn users of the need to service the dryer and of conditions restricting air flow.

Electrolux first challenges Stoddard's qualifications to provide expert testimony regarding the adequacy of the warnings affixed to and accompanying the subject dryers, pointing out again that Stoddard's qualifications lie in the field of fire cause and origin, not engineering or related fields like human factors analysis. In response, plaintiffs assert that Stoddard does not intend to offer "any opinions related to the field of 'human factors' such as the propriety of the color, font, or style of a warning, or a consumer's ability or inclination to comprehend or react to a warning label or product literature." Br. in Opp., dkt. 135, at 10-11. Instead, say plaintiffs, Stoddard's opinion on warnings "concerns only the impropriety of Electrolux's use of product literature as a solution to a product design hazard." *Id.* At 11.

I agree with plaintiffs that Stoddard's lack of training and experience as a human factors analyst, engineer or warnings specialist does not disqualify him from offering his opinion whether Electrolux's warnings were adequate. Based on his intimate familiarity with the

Electrolux ball-hitch dryers that are at issue in this case, Stoddard has specialized knowledge that permits him to opine whether the warnings are adequate to address the hazards posed by the product's alleged defective design. Various courts have permitted similar testimony. *Accord, Tanner v. Shoupe*, 228 Wis. 2d 357, 374-75, 596 N.W. 2d 805 (Wis. Ct. App. 1999) (trial court erred in precluding witness from offering expert testimony about adequacy of defendant's warnings on car battery, where witness had studied car batteries for over 30 years as an auto mechanic and consultant, had disassembled thousands of batteries and had seen hundreds of exploded batteries and knew what caused them to explode); *Pineda v. Ford Motor Co.*, 520 F.3d 237, 245 (3d Cir. 2008) (district court abused discretion in refusing to allow engineer to opine that 2002 Ford Explorer's service manual should have contained explicit warning that following necessary step-by-step instruction for replacing liftgate brackets and hinges was safety issue; expert did not purport to opine on how warning should be worded or how it should appear in order to effectively convey its message to auto technician but only that proper warning would be solution to the engineering problem he had identified). As the court observed in *Pineda*, 520 F.3d at 245, "a proper warning is also a solution to an engineering problem." Having concluded that Stoddard may offer expert testimony regarding the engineering problems posed by the subject dryers, it follows that he may also testify regarding the adequacy of Electrolux's warnings as a solution to those problems.

That said, I agree with Electrolux that Stoddard's report goes much farther than simply assessing Electrolux's product literature and opining whether the warning and instructions provided therein would adequately address the design problem he has identified. In particular, Stoddard has opined that Electrolux could have addressed the alleged warning inadequacies by incorporating into the dryer design service reminder lights, restricted airflow notifications and

a “lockout feature to shut the dryer down if the warning light was ignored by the user with conditions of poor airflow, which could only be reset by a trained servicer.” *See* Stoddard Rep. in Blake, dkt. , at 104-10. Electrolux objects to this testimony on the ground that it is neither relevant nor reliable, arguing that Stoddard’s proposed designs are theoretical only and not supported with any data, testing or analysis to show their efficacy or feasibility in general, much less that they would have made any difference in any of the instant cases. Br. in Supp. of Mot. to Preclude, dkt. 128, at 24.

This criticism is well-founded. As the court of appeals noted in *Cummins v. Lyle Industries*, 93 F.3d 362, 368 (7th Cir. 1996):

There are a number of considerations which must inform . . . a conclusion [that the manufacturer ought to have incorporated alternative designs and warnings]. These include, but are not limited to, the degree to which the alternative design is compatible with existing systems and circuits; the relative efficiency of the two designs; the short- and long-term maintenance costs associated with the alternative design; the ability of the purchaser to service and to maintain the alternative design; the relative cost of installing the two designs; and the effect, if any, that the alternative design would have on the price of the machine. Many of these considerations are product- and manufacturer-specific, and most cannot be determined reliably without testing.

Here, in contrast to his proposed guard for separating the lint from the heat source, which Stoddard actually designed, tested and had reviewed by his peers, Stoddard’s proposed warning/lock out system exists in “concept” form only. However, “[p]roposing an ideal situation to a problem is not a qualification for designing or producing a practical solution to the problem.” *Flores v. DaimlerChrysler Corp.*, 2008 WL 822008, *3 (S.D. Tex. Mar. 26, 2008). Additionally, Stoddard has not pointed to any other dryers that contain similar warning systems and he has not cited any other data to support the reliability of his opinion. Finally, plaintiffs

have not developed any meaningful response to this objection to Stoddard's testimony. For all these reasons, I am not persuaded that Stoddard's testimony regarding an alternative warning system is reliable.

On the subject of warnings, therefore, Stoddard will be allowed to testify only as to the adequacy of Electrolux's existing product literature and warnings in addressing the risk posed by the alleged design defect in its dryers. Stoddard may not testify about the feasibility of engineered warnings systems as a solution to the problem.

III. W. Joseph Fallows

Plaintiffs have offered W. Joseph Fallows as an expert on the design and commercial use of plastic products and the ethical standards associated with that work. Fallows is a mechanical engineer with 30 years of marketing and industrial experience in the field of plastics engineering. His expertise in the field of plastics engineering is undisputed. Fallows has expressed the following opinions in this case:

- 1) The subject dryers were unreasonably dangerous because they were designed with a non-fire-retardant plastic for the air duct and blower housing;
- 2) It was reasonably foreseeable to Electrolux that the combustible plastics in its dryers could ignite;
- 3) Electrolux breached its duty of care by designing and manufacturing dryers with a combustible and non-self-extinguishing plastic air duct and blower housing; and
- 4) Electrolux violated basic engineering principles by choosing not to make a design change after testing established that a design change would create a safer product.

Electrolux raises three objections to Fallows's opinions. First, it argues that the data on which he relies—the UL 94 Flame Ratings standards, a Wright Group video showing molten, burning plastic seeping out of the right front burner of an Electrolux dryer and the results of a GE fire containment test (which the subject dryers failed)—do not logically support his conclusion that the plastics that Electrolux used in its dryers would burn longer and pose a greater hazard in the event of a dryer fire than other plastics that it could have used. Second, it argues that Fallows's opinions are irrelevant because he admits he has no knowledge regarding the particulars of any of the dryer fires at issue in this case. Finally, it contends that Fallows is not qualified to offer opinions on engineering ethics, and in any case, such opinions are not admissible.

Although it is a close question, I am satisfied that Fallows has cited sufficient evidence to support his conclusion that, should a fire ignite inside it, a dryer that contained a vent and blower housing manufactured from the HB plastics Electrolux used would pose more of a hazard than one containing parts made from fire-retardant 5V plastics, and further, that Electrolux had the knowledge and the means to design this hazard out of its products. The GE containment testing and the Wright Group's video and observations of the burn patterns in hundreds of Electrolux dryers arguably provide the "real world" evidence regarding fire containment that Electrolux complains is lacking from the UL 94 standards. Electrolux will be free during cross examination to explore the analytical gaps of which it complains, but the gaps are not so large as to preclude Fallows from testifying altogether.

That said, I am not convinced from plaintiffs' submissions that Fallows's opinions are relevant to the particular fires at issue in this case. Plaintiffs must prove not only a design defect

but causation. *See, e.g., Insolia v. Philip Morris Inc.*, 216 F.3d 596, 604 (7th Cir. 2000). Although I agree with plaintiffs that evidence of causation need not come from Fallows (who offers no opinion on this subject), but it needs to come from *someone*. Presumably, plaintiffs have evidence in at least some of the Wisconsin dryer fires that flames escaped the dryer cabinet and caused more property damage than would have been caused if Electrolux had used fire-retardant plastics. At this juncture, however, the court hasn't seen it. Accordingly, like Stoddard, Fallows may testify regarding the alleged defect posed by the use of HB plastics only upon a showing by plaintiffs that such testimony is relevant.

Finally, I agree with Electrolux that Fallows is not qualified to offer an opinion regarding “engineering ethics,” and in any event such testimony would not be helpful to the jury. Fallows has no special background or expertise in the field beyond his general familiarity with the Engineering Code of Ethics. Even if Fallows were qualified, the provision of the code that he cites does little more than state the obvious: engineers should design products that are safe. An expert is not needed to convey this notion to the jury. Further, permitting Fallows to opine that Electrolux behaved “unethically” would confuse the jury and unfairly prejudice Electrolux by implying *scienter* or at least allowing the jury to infer it. Ethical standards are different from the standards the jury must apply. The jury instructions will inform the jury about the relevant legal standards in this case. Accordingly, I find that Fallows’s ethics testimony is inadmissible under Federal Rules of Evidence 403 and 702. *Good Shepherd Manor Found., Inc. v. City of Momence*, 323 F.3d 557 (7th Cir. 2003) (“[E]xpert testimony as to legal conclusions that will determine the outcome of the case is inadmissible.”).

IV. Dr. Eric J. Boelhouwer

Dr. Eric J. Boelhouwer is plaintiffs' warnings expert. He holds a Ph.D. and a Master of Industrial and Systems Engineering from Auburn University and is a member of a number of organizations related to human factors and product safety. Dr. Boelhouwer earned a bachelor's degree in chemical engineering and an MBA in business administration. Since late 2010, when he obtained his Ph.D., Dr. Boelhouwer has been employed as a consultant by Dorris & Associates International, LLC. Part of his work involves making recommendations to clients regarding the format, content and layout of product warnings. Dr. Boelhouwer has published a number of papers and given multiple presentations, many of which relate to industrial chemical safety and labeling.

A. Opinions Applicable to All Eight Cases

I. 18-Month Service Requirement

The June 2008 Use and Care Guides for the subject dryers contain a warning³ informing users that, to prevent fire,

the interior of the dryer, lint screen housing and exhaust duct should be cleaned approximately every 18 months by qualified service personnel. An excessive amount of lint build-up in these areas could result in inefficient drying and possible fire.

Dr. Boelhouwer has opined in all eight cases that this warning is inadequate to address the alleged design defect of excessive lint accumulation behind the drum because consumers are unlikely to comply with it. Boelhouwer draws this conclusion from a number of preliminary

³ Some of the dryers had a similar warning placed directly on them.

opinions, set out at pages 6-7 of his report. *See, e.g.*, Boelhouwer Rep.-Blake, dkt. 128, ex. 10.

Electrolux challenges the following three of these sub-opinions:

- 1) Electrolux failed to provide a feedback mechanism to remind consumers as to when the last service was performed or when the next service may be needed;
- 2) The “cost of compliance” with the 18-month service requirement is too high for many dryer owners; and
- 3) Consumers have an expectation that household appliances are typically serviced on an “as needed” basis.

Broadly speaking, Electrolux challenges Dr. Boelhouwer’s opinions as mere *ipse dixit*, unsupported by any reliable testing, consumer surveys or research. Br. in Supp., dkt. 128, at 21-22. In response, plaintiffs insist that Dr. Boelhouwer has done enough, and that Electrolux’s arguments go to credibility, not reliability. Plaintiffs point to non-binding cases in which a human factors expert’s training and experience, along with knowledge of the facts in the case, was found sufficient to satisfy the reliability requirement, br. in Opp., dkt. 135, at 25-26 (citing *Michaels v. Mr. Heater, Inc.*, 411 F. Supp. 2d 992, 999-1000 (W.D. Wis. 2006) and *Burks v. Abbott Laboratories*, 917 F. Supp. 2d 902, 920 (D. Minn. 2013)), and note that Electrolux’s own expert acknowledged in a deposition in a previous case that she had derived her opinion that Electrolux’s warnings *were* adequate without conducting testing or surveys, *id.* at 27.

As the Advisory Committee Note observes, *Daubert*’s factors for assessing reliability are “neither exclusive nor dispositive” and do not apply to every type of expert opinion. *See Kumho Tire*, 526 U.S. at 150; *see also Tyrus v. Urban Search Mgmt.*, 102 F.3d 256 (7th Cir.1996) (*Daubert* factors not readily applicable to testimony of sociologist). Even so, a witness relying solely or primarily on experience still “must explain how that experience leads to the conclusion reached,

why that experience is a sufficient basis for the opinion, and how that experience is reliably applied to the facts,” because “the trial court’s gatekeeping function requires more than simply taking the expert’s word for it.” Fed. R. Evid. 702 Advisory Committee’s Notes to 2000 Amendments (citations omitted).

a. reminder mechanism

I agree with Electrolux that Dr. Boelhouwer has not bridged the analytical gap with respect to his opinion that Electrolux’s warning on its dryers is inadequate because it does not provide a reminder mechanism—such as a sticker on the dryer where a service technician could record the date of service—to inform consumers when the last service was performed or the next service may be needed. The only support Boelhouwer offered for this opinion is his “background, training and experience.” Boelhouwer Dep., dkt. 133, at p. 96. However, he acknowledged that he had not done any research, conducted studies, written papers, attended seminars or received any specific education that addressed whether consumers were unable or unwilling to remind themselves about regular service required for a home appliance. *Id.* at 98-99. Further, he could point to no study, paper or survey by others that supported his opinion that a warning *lacking* such a reminder mechanism is inadequate. *Id.* at 133. Apart from new automobiles, he could not identify other products containing such reminder mechanisms, *id.* at 97, and he made no attempt to compare Electrolux’s warning to those of other dryer manufacturers. *Id.* at 118.

As the court indicated in *United States v. Benson*, 941 F.2d 598, 604 (7th Cir. 1991), “[a]n expert’s opinion is helpful only to the extent the expert draws on some special skill,

knowledge, or experience to formulate [his] opinion; the opinion must be an *expert* opinion (that is, an opinion informed by the witness's expertise) rather than simply an opinion broached by a purported expert.” Here, there is nothing to indicate that Dr. Boelhouwer’s opinion passes this test. He may have education, training and experience in the field of human factors, but his testimony offers no assurance that his conclusion about the reminder mechanism was informed by this expertise.⁴ Accordingly, his testimony on this point shall be precluded.

b. cost of compliance

It is a closer question whether to allow Dr. Boelhouwer to testify as to his opinion that the “cost of compliance” with the 18-month service requirement is too high for many dryer owners. Unlike his gratuitous opinion regarding the reminder mechanism, Dr. Boelhouwer pointed to the following data and scholarly research that informed this conclusion: 1) a September 2010 survey of 358 dryer owners by the Consumer Product Safety Commission, which found that “[a] service call to clean the accumulated lint within the dryer can be costly and inconvenient to the customer, and therefore the consumer may overlook performing this maintenance task until there is an operating problem with the dryer, which may lead to a higher risk of fire”; 2) Dr. Boelhouwer’s review of depositions of approximately 100 dryer-fire litigants, from which he found that it was not their custom or practice to call qualified service personnel to service their dryers at 18-month intervals; and 3) two scholarly articles, one written by Dingus, Hathaway and Hunn in 1991 and one written by Rogers, Lamson and Rousseau in

⁴ Apart from this, it is difficult to reconcile his criticism of the lack of a reminder mechanism with his testimony that dryer users ordinarily will not comply with the 18-month service requirement in any event because they view the cost of compliance to be too high.

2000, which posit that cost of compliance is a barrier to achieving warnings compliance and is one of the most consistent findings of warnings research.

Electrolux does not challenge the findings of the scholarly articles or Boelhouwer's reliance on them, but insists that neither the CPSC survey respondents nor the Electrolux owners whose dryers caught on fire can be deemed a statistically valid sample of dryer owners. Therefore, Electrolux argues, Boelhouwer has no reliable basis for his conclusion that the costs of complying with the 18-month service requirement is too high for many dryer owners. Electrolux does not point to any contrary evidence or surveys that Dr. Boelhouwer failed to consider, but suggests that Dr. Boelhouwer should have conducted his own survey before drawing his conclusions.

Although I agree that the data from which Boelhouwer draws his conclusion is somewhat flimsy, when determining whether an expert's testimony is reliable, the court looks to whether the expert used the same level of intellectual rigor in the courtroom that he would have used in the field. Here, there is no evidence suggesting that Dr. Boelhouwer failed to do so. Notably, Dr. Boelhouwer testified that it is customary in the field of warnings analysis to consider studies or surveys conducted by others in order to gain background information about consumers' habits with respect to specific products, and that conducting independent studies is not done in every case. Boelhouwer Dep., dkt. 128, exh. 12 at 63. Further, although "statistical validity" may be a necessary benchmark in certain fields of research, Electrolux presents no evidence to suggest that this is true for the discipline of "human factors," which has been described as "a discipline that incorporates a study of human behaviors, limitations and capabilities into the design of products, systems and equipment." *Winters v. Fru-Con Inc.*, 498 F.3d 734, 741 (7th Cir. 2007).

The CPSC survey and the first-hand reports of 100 dryer owners, though perhaps not representative of the average dryer owner, provide at least some data regarding the habits of “many” dryer owners, which is how Boelhouwer phrased his opinion regarding the costs of compliance. Combined with the scholarly research on costs of compliance and Dr. Boelhouwer’s education and training, they are sufficient to substantiate Boelhouwer’s “cost of compliance” opinion. *See Daubert*, 509 U.S. at 590 (expert must have “‘good grounds,’ based on what is known” for his conclusions).

c. consumers’ “expectations” regarding household appliances

I do not reach the same conclusion with respect to Dr. Boelhouwer’s opinion that consumers have an expectation that household appliances are typically serviced on an “as needed” basis. Here, Dr. Boelhouwer paints too broadly, offering an opinion that goes beyond the habits of “many” dryer owners and speaks to the habits of all consumers with respect to all household appliances. In this instance, the CPSC survey and the dryer fire litigant depositions—which are the only two pieces of data on which Dr. Boelhouwer relies for his opinion—are too slender a thread on which to hang his broad conclusions about consumer behaviors *in general* with regard to household appliances *in general*. Although plaintiffs tout Dr. Boelhouwer’s expertise as a “human factors” expert, they point to nothing in his training or experience that qualifies him to offer such a wide-ranging opinion, which presumably could be tested with surveys or research.

In short, Dr. Boelhouwer’s opinion regarding consumers’ expectations as to when they need to service household appliances is not reliable enough to be admissible.

2. Proposed Feedback System

As an alternative to the 18-month service instruction, Dr. Boelhouwer opines that Electrolux should have designed its dryers to include a “feedback system” to alert consumers about the increasing risk of lint accumulation. Dr. Boelhouwer describes such a system as “an indicator light on the control panel in combination with a word message to inform the dryer what actions needed to be taken to reduce the risk of fire.” Br. in Supp., dkt. 128, exh. 10, Boelhouwer Rep.–Blake, at 7.

I agree with Electrolux that Dr. Boelhouwer is not qualified to offer this opinion. Again, plaintiffs’ argument in support of admissibility rests solely on Dr. Boelhouwer’s “expertise” regarding warnings and on a non-binding case with inapposite facts. Whereas the human factors expert in *Smith v. Ingersoll-Rand Co.*, 214 F.3d 1235, 1243 (10th Cir. 2000) offered the rather commonsensical opinion that the milling machine at issue could have been made safer by the simple addition of mirrors that would enable the operator to view the groundsmen on either side, here the vague “feedback system” that Dr. Boelhouwer proposes is much more complex and product-specific. Dr. Boelhouwer has no relevant engineering or design experience regarding such feedback systems, he did not attempt to construct one and he did not analyze whether and with what success such a system had been used by other manufacturers. *Accord Jaurequi v. Carter Mfg. Co., Inc.*, 173 F.3d 1076, 1084 (8th Cir. 1999) (Excluding expert testimony that “warnings were deficient in placement, design, orientation, and content” as unreliable because “[n]either [expert] had created or even designed a warning device which would have been more appropriate, much less tested its effectiveness.”). Further, Dr. Boelhouwer could not point to any relevant training, experience or research on his part that would qualify him to opine that his theoretical

system would be any more effective than the warnings already provided—warnings which he claims that consumers will ignore. All told, Dr. Boelhouwer is not qualified to offer his opinion regarding his proposed feedback system, and even if he was, the opinion is not reliable.

B. Case-Specific Opinions

Finally, Dr. Boelhouwer will not be permitted to testify regarding his opinions regarding foil duct (in the Donahue and Freeman cases) and the “risk of fire” warnings (in the Larson and McCants cases). As Electrolux correctly argues (at dkt. 128, 25-26), neither of these opinions is supported by any authority or analysis and would not be helpful to the jury. Plaintiffs do not argue otherwise or offer any meaningful response to Electrolux’s objection apart from their blanket assertion that Boelhouwer is a qualified expert in the field of human factors analysis. As already noted, this is not enough.

ORDER

IT IS ORDERED THAT:

The motion of defendant Electrolux to exclude the testimony of W. Joseph Fallows, Michael Stoddard and Eric J. Boelhouwer is GRANTED IN PART and DENIED IN PART, as more specifically explained in the preceding opinion.

Entered this 25th day of June, 2014.

BY THE COURT:

/s/

STEPHEN L. CROCKER
Magistrate Judge