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CERTIFIED FOR PUBLICATION

COURT OF APPEAL, FOURTH APPELLATE DISTRICT

DIVISION ONE

STATE OF CALIFORNIA

APPLE INC.,

Petitioner,

v.

THE SUPERIOR COURT OF SAN  
DIEGO COUNTY,

Respondent;

ANTHONY SHAMRELL et al.,

Real Parties in Interest.

D072287

(San Diego County  
Super. Ct. No. 37-2013-00055830-  
CU-PL-CTL)

ORIGINAL PROCEEDING in mandate. Ronald L. Styn, Judge. Petition granted in part and denied in part; stay vacated.

O'Melveney & Myers, Matthew D. Powers, E. Clay Marquez and Kelsey M. Larson for Petitioner.

No appearance for Respondent.

Doyle Lowther, William J. Doyle, John A. Lowther and Chris W. Cantrell; Gomez Trial Attorneys, John H. Gomez and Deborah S. Dixon; Niddrie Addams Fuller, Rupa G. Singh for Real Parties in Interest Anthony Shamrell and Daryl Rysdyk.

In this writ proceeding, we decide an issue of apparent first impression: Does the Supreme Court's analysis of the admissibility of expert opinion evidence in *Sargon Enterprises, Inc. v. University of Southern California* (2012) 55 Cal.4th 747 (*Sargon*) apply when a trial court considers a motion for class certification? For reasons we explain below, we conclude *Sargon* applies to expert opinion evidence submitted in connection with a motion for class certification. A trial court may consider only admissible expert opinion evidence on class certification, and there is only one standard for admissibility of expert opinion evidence in California. *Sargon* describes that standard.

Petitioner Apple, Inc. (Apple) is the defendant in a putative class action filed by plaintiffs and real parties in interest Anthony Shamrell and Daryl Rysdyk. The trial court granted plaintiffs' motion for class certification but expressly refused to apply *Sargon* to the declarations submitted by plaintiffs' experts. The trial court believed it was not required to assess the soundness of the experts' materials and methodologies at this stage of the litigation. That belief was in error. And, as we will explain, this error was prejudicial. We will therefore direct the trial court to vacate its order granting plaintiffs' motion for class certification and reconsider the motion under the governing legal standards, including *Sargon*.

## FACTUAL AND PROCEDURAL BACKGROUND

### *Plaintiffs' Allegations*

In their operative complaint, plaintiffs alleged that Apple's iPhone 4, 4S, and 5 smartphones were sold with a defective power button that began to work intermittently or fail entirely during the life of the phones. The power button (also known as the sleep/wake button) is important to the operation of Apple's iPhones. A malfunctioning power button can prevent a user from powering the phone on or off, rebooting the phone, locking the phone's screen, and putting the phone to sleep. Plaintiffs alleged Apple knew of the power button defects based on prerelease testing and postrelease field failure analyses, yet Apple began selling the phones and continued to sell the phones notwithstanding the defect.

Plaintiffs further alleged the existence of a class of California citizens who purchased the iPhones in question and whose power button stopped working or worked intermittently. Plaintiffs alleged that questions of law or fact common to the class predominated over individual questions, including such common questions as "whether [Apple] made any warranties regarding its sale of iPhone 4, 4S, and 5 smartphones;" "whether the power button defect is a latent and/or inherent defect;" "the appropriate nature of class-wide equitable relief;" and "the appropriate measure of monetary relief to award to Plaintiffs and the Class."

Based on these allegations, plaintiffs asserted causes of action under the Consumers Legal Remedies Act (CLRA; Civ. Code, § 1750 et seq.), the Song-Beverly Consumer Warranty Act (Civ. Code, § 1790 et seq.), the Magnuson-Moss Warranty Act

(15 U.S.C. § 2301 et seq.), the Unfair Competition Law (UCL; Bus. & Prof. Code, § 17200 et seq.), and for breach of express and implied warranty. Plaintiffs sought certification of their lawsuit as a class action, restitution, compensatory and exemplary damages, injunctive relief, and reasonable costs and attorneys' fees.

*Plaintiffs' Motion for Class Certification and Opposition*

Plaintiffs filed a motion to certify two classes, one for iPhone 4 and 4S purchasers and one for iPhone 5 purchasers. The proposed classes consisted of California citizens who had purchased the specified iPhones and whose iPhone power button stopped working or worked intermittently during the phone's warranty period. The warranty period was one year from the date of purchase for the iPhone 4 and 4S and three years from the date of purchase for the iPhone 5.

Among other things, plaintiffs argued that the following legal and factual questions were common across each proposed class: whether a power button defect exists, the scope of that defect, Apple's knowledge of the defect, whether the defects were repaired, and the existence and materiality of Apple's alleged nondisclosures about the defect. Plaintiffs contended that Apple's liability under each of their causes of action could be shown by proof common to all members of the class. And, although they claimed that damages calculations had little relevance to the issue of class certification, plaintiffs asserted that they could prove damages on a classwide basis as well. Plaintiffs offered several classwide damages theories, including the cost to repair the defective power button, the diminution in value suffered by iPhones with a defective power button, "difference in value (what was paid versus what was received)," and restitution.

Plaintiffs supported their motion with a declaration by Heather Xitco, an accountant and experienced expert witness. In her declaration, she opined that damages and equitable remedies could be calculated on a classwide basis. She asserted that "the damages suffered by and/or the alleged restitution owed to Plaintiffs and to Class Members because of the defect can reasonably be quantified using the cost of repairing the sleep/wake button defect in the iPhone 4, 4S, and 5, or quantified using the diminution in value of each iPhone." She stated, "The methodology used for calculating the cost of repair and/or the diminution in value is commonly used and will be based on my education, training, background and experience and be based on Apple's own documents identifying the cost of the repair and the difference in the value of iPhones with the defect, compared to working iPhones, which do not have the sleep/wake button defect." She said she would also be able to calculate Apple's profits from the sale of defective iPhones based on Apple's financial documents.

Apple opposed the motion for class certification. Apple argued that the nature of the defect, and its knowledge, varied across the individual iPhones at issue. (Apple's argument relied on its proprietary technical information, so we will not recount the details here.) Apple contended that its liability to each class member would have to be determined individually because many potential class members had no claim, either because they received free repairs or replacement phones under Apple's warranty program, because they were able to obtain a free repair or replacement but chose not to, because their power button malfunctioned for reasons unrelated to the alleged defect, or because the power button defect would not have affected their decision to purchase an

iPhone. Apple asserted that it would be difficult to identify class members based on their memory of having a power button that worked intermittently or not at all, especially if they stood to gain a substantial amount of money by so identifying themselves.

Apple claimed that whether a class member suffered an injury, and how much, could not be determined on a classwide basis. Apple criticized plaintiffs' cost of repair and diminution in value theories because they did not apply to class members who did not pay for repairs or suffer any perceptible diminution in value. It criticized Xitco as unqualified to opine on economic loss and pointed out that Xitco did nothing to evaluate the circumstances of individual class members.

Apple supported its opposition with a declaration from its own damages expert, Lorin Hitt, Ph.D. Hitt is a professor at the University of Pennsylvania's Wharton School. His teaching and research focus is the economics of the information technology industry and closely related industries such as consumer electronics and telecommunications. He was also an experienced expert witness. Hitt supported Apple's criticisms of Xitco and her damages models as unfounded and susceptible only to individualized proof. For example, Hitt opined that each purchaser of an iPhone would value the power button functionality differently depending on their preferences and any assessment of diminution in value would have to account for the variation in the severity of the alleged defect across affected consumers. Hitt specifically criticized as "inappropriate" plaintiffs' suggestion that diminished trade-in values for iPhones with power button malfunctions could serve as a basis for estimating diminution in value.

Following oral argument on plaintiffs' motion, the trial court found that plaintiffs had not shown that common questions predominate and declined to certify plaintiffs' proposed classes. The court did not believe plaintiffs had adequately shown how the fact of damage could be proved on a classwide basis. For example, plaintiffs had not shown how the total number of affected purchasers would be calculated or how Xitco would calculate damages for the classes. Given the complexity of the issues involved, however, the court did not deny plaintiffs' motion outright. The court allowed plaintiffs to file supplemental documents addressing the court's concerns.

*First Supplemental Briefing*

In their supplemental brief, plaintiffs proposed a method of calculating the number of affected purchasers. Plaintiffs submitted a declaration from an additional expert, Fred Schenkelberg, who specialized in quality control and statistics. He believed he could calculate a power button failure rate in the affected iPhones using Apple quality control documents. In a supplemental declaration, Xitco explained that she could use Schenkelberg's failure rate in her calculation of damages.

As to classwide injury, plaintiffs again asserted that classwide damages and restitution could be calculated based on diminished trade-in value or Apple's profits. Plaintiffs proposed the following formula: (Number of identified iPhones sold) x (Failure rate) x (Damages/restitution calculation) = Classwide compensation award.

In her supplemental declaration, Xitco stated, "Damage quantification will be based on the premise that when Class Members purchased their Class iPhones those phones were not worth the value the Class Members paid because the Class iPhones had

a defect; resulting in the Class iPhones being worth less than an iPhone without the defect." Xitco explained that damages and restitution "can reasonably be quantified using the cost of repairing the sleep/wake button defect in the iPhone 4, 4S, and 5, or quantified using the diminution in value of the Class iPhones." Xitco believed she could complete these quantifications using Apple documents, along with her own education and experience. She opined, "The class damages as well as restitution can be calculated in an aggregate, class wide basis and do not require an individualized inquiry." And, in the alternative, Xitco proposed to use Apple's profits from the sale of the affected iPhones to calculate restitution and disgorgement.

In its response, Apple again criticized Xitco as being unqualified to opine regarding economic loss. Apple pointed to deposition testimony in which Xitco admitted being unable to calculate diminution in value on her own; her function was to calculate damages mathematically once that value has been determined by someone else. Apple criticized Xitco's reliance on Apple documents because they had no relevance to the economic value or loss for which Xitco would rely on them. Similarly, Apple criticized Schenkelberg's reliance on Apple quality control documents because they did not show the failure rates that Schenkelberg attributed to them. Instead, they showed warranty returns by iPhone purchasers. In Apple's view, those warranty returns reflected purchasers (and proposed class members) who had been made whole and therefore had no injury at all. Apple supported its response with a supplemental declaration from its damages expert Hitt.

At the second hearing on plaintiffs' motion, after Apple referenced *Sargon* in relationship to plaintiffs' experts, the court asked whether *Sargon* applied at class certification. Apple responded affirmatively. The court expressed concern that applying *Sargon* would "turn class cert[ification] motions into these massive hearings." Apple countered, "I don't know that a hearing—a separate hearing is required. But . . . it is our position that the [c]ourt needs to apply the standards in *Sargon* to the admissibility to the—to any expert testimony that is offered at the class cert[ification] stage."

On the merits of the motion, the court expressed concern about the relevance of the Apple documents Xitco would rely on for her damages calculations. It requested that plaintiffs identify the documents in question and explain their relevance. But the court stated, "I'm not saying I need a full-fledged *Sargon*, and I'm not going to go through this and have hours of testimony." The court felt it needed "a declaration where [Xitco] sets forth the specifics of her methodology." The court gave plaintiffs leave to file a second supplemental declaration from Xitco, with the opportunity for a further response from Apple.

### *Second Supplemental Briefing*

In addition to a second supplemental Xitco declaration, plaintiffs filed a supplemental brief and declarations from two additional experts. In their brief, plaintiffs proposed to narrow the proposed classes and exclude individuals who had received warranty service, i.e., repaired or replacement iPhones, because of a power button issue. As to the remaining class members, plaintiffs identified Apple documents showing the amounts Apple charged consumers to repair broken power buttons on the affected

iPhones and the internal costs Apple incurred for the same service. Plaintiffs also identified Apple documents describing the diminution in trade-in value attributable to partially nonfunctioning iPhones, which plaintiffs asserted would include iPhones with inoperable power buttons. And, as discussed further below, plaintiffs proposed a third methodology for determining damages based on "conjoint analysis," a technique for valuing specific features in a consumer product.

In her declaration, Xitco acknowledged that she "will not be offering any opinion as to the correct legal theory of damages" and would instead use Apple documents, along with her education and experience, to calculate damages based on cost of repair and diminution in value (trade-in) methodologies. Xitco provided further detail regarding the Apple documents she intended to rely on, in the categories discussed above. Xitco opined that she could use the Apple documents, along with Schenkelberg's failure rates, to calculate classwide damages.

Plaintiffs' first additional expert was Gregory Pinsonneault, an economic and financial consultant and experienced expert witness. As background, Pinsonneault stated in his declaration that he had been instructed that one measure of damages or restitution for plaintiffs' CLRA and UCL claims would be "the difference between what consumers paid and what the value of the Class Phones would have been at the time of sale had the Power Button Defect been disclosed." Pinsonneault opined that Apple documents regarding iPhone trade-in values "can be used to estimate the diminution in value that the Class Plaintiffs have suffered on a classwide basis." He believed that the trade-in values reflected the market prices and market values for functioning and nonfunctioning

iPhones, and one category of nonfunctioning iPhone included iPhones with a defective or broken power button. In Pinsonneault's view, such values "can be used to estimate the real impact on market value that would have occurred if the Power Button Defect had been disclosed at the time of sale. . . . Therefore, this . . . reduction in trade-in price can be used to estimate the diminution in value that the Class Plaintiffs have suffered on a classwide basis due to the presence of the Power Button Defect." Alternatively, Pinsonneault believed that conjoint analysis could also provide a reliable estimation, on a classwide basis, of the amount purchasers overpaid at the time of sale based on Apple's failure to disclose the power button defect.

The proposed conjoint analysis was described by plaintiffs' second additional expert, Ramamirtham Sukumar, Ph.D. Sukumar is the head of a consumer value analytics consulting company and an expert witness. He was asked to determine the difference in market value between an iPhone 4, 4S, or 5 with a fully functioning power button and an iPhone with a power button that malfunctions. Sukumar interpreted this difference in value as "the reduction in price needed to keep the same amount of Apple's iPhone 4, 4S, and 5 unit sales, if Apple removed the functionality of the power button, all else remaining the same." He understood the functionality of the power button to be turning the phone on and off, restarting the phone, putting the phone into sleep mode, and exiting from malfunctioning apps. "If the power button does not function properly the iPhone must remain on full power at all times, draining the life of the smartphone battery."

Sukumar's proposed conjoint analysis would involve surveying consumers to determine how much value that they placed on the functionality of an iPhone power button. This survey would not ask customers to directly value the functionality. Instead, it would ask customers to make trade-offs between various products with different bundles of features and different price points. Through mathematical analyses of the results, the value of the functionality can be isolated and calculated. For this litigation, Sukumar proposed to pair power button functionality with "distractor features" such as a camera, a touchscreen, a speakerphone, and a volume control button.

According to Sukumar, conjoint analysis is widely accepted. It has been used in patent infringement suits to determine the value of a patented feature, among many other areas. Sukumar proposed to use a method called Formula 14 to calculate the difference in market value between a functioning iPhone and an iPhone with a nonfunctioning power button. Formula 14 was described in an award-winning research paper entitled "How Much Does the Market Value an Improvement in a Product Attribute?" that appeared in the journal *Marketing Science*. Sukumar explained that Formula 14 "should only be used when the feature and price change are very small in terms of their overall impact [on] the likelihood of purchasing the product." But he opined that "[i]t is reasonable to conclude that the smartphone power button has a very small overall impact on consumers' likelihood of purchasing a smartphone. And it is reasonable to conclude that the proportional value of the smartphone power button, in the context of the value of an entire smartphone, is significantly lower."

Apple again opposed, with support from its expert Hitt and two additional experts. Apple urged the court to reject the materials and methodologies identified by plaintiffs' experts as unreliable under *Sargon*. It criticized plaintiffs' proposed damages methodologies because they ignored the postsale experience of iPhone purchasers, many of whom did not trade in their phones or pay for repairs (which were offered free by Apple in any event). And, for those who did trade in their iPhones, many could have received full value if the power button was working at the time of trade in or, alternatively, many could have received a reduced value for reasons other than power button issues. Apple pointed to evidence that many purchasers contacted the company and were offered warranty service but did not accept it. In Apple's view, these purchasers had not suffered damage. As to Sukumar's proposed conjoint analysis, Apple asserted that Formula 14 could not apply to such a foundational feature as a power button.<sup>1</sup> Apple believed Sukumar's proposal conflicted with plaintiffs' other proposed damages methodologies, which appeared to imply a substantial diminution in value relative to the cost of an iPhone based on cost of repair and reduced trade in value. Apple asserted that Sukumar admitted in deposition that he had not reviewed any documents in the litigation other than plaintiffs' complaint. Lastly, Apple pointed out that Schenkelberg's proposed methodology for determining class size was no longer valid given plaintiffs' decision to exclude from the classes purchasers who had obtained warranty service from Apple.

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<sup>1</sup> Apple's Formula 14 argument was supported by a declaration from Oliver Toubia, Ph.D., a professor at Columbia Business School and an expert in conjoint analysis. He opined that Sukumar's proposed conjoint analysis was a misuse of Formula 14, would not result in reliable conclusions, and would not be accepted by experts in the field.

In reply, plaintiffs opposed Apple's effort to apply *Sargon* to its experts' opinions. Plaintiffs defended their three proposed damages methodologies: cost of repair, diminution in value (based on trade-in value), and conjoint analysis. They pointed to Xitco's supplemental declaration and deposition as evidence that cost of repair was an economically appropriate measure of damages. And plaintiffs confirmed that Pinsonneault would opine that every purchaser of a defective iPhone, even those who received full value at trade-in, were equally harmed by the defect at the time of purchase. That harm, in Pinsonneault's view, could still be quantified using the diminution in trade-in value suffered by other purchasers. As for Schenkelberg's failure rate calculations, plaintiffs proposed a modified formula for calculating the size of each class: (Number of identified iPhones sold - number of identified iPhones repaired or replaced by Apple) x (Failure rate) = Class size.

At the third hearing on plaintiffs' motion, Apple focused on the mismatch between plaintiffs' damages theories and their methodologies. Apple pointed out that plaintiffs did not claim damages based on the risk of a defect, only a manifested defect itself. In Apple's view, plaintiffs' experts Pinsonneault and Sukumar claimed to be measuring damages attributable to the defect at the time of purchase, "but there aren't any actual malfunctions when you buy the phone. If you measure at point of purchase, there isn't the harm for any class member because their phone works great. And obviously, you can't disclose to customers *whose* phone is going to eventually malfunction. It's impossible. You don't—you don't know that." (Italics added.) Apple argued that plaintiffs' classwide damages theories were untenable, and class certification was

improper because individual issues of fact and law would predominate. Apple again urged the trial court to apply *Sargon*, but the court refused.

#### *Order Granting Class Certification*

After oral argument, the court issued a lengthy minute order granting plaintiffs' motion to certify their proposed classes. The order confirmed the court's belief that *Sargon* did not apply. The court stated, "The issues Apple raises with respect to the materials Plaintiffs' experts will rely upon in forming their opinions and whether Plaintiffs' experts' analyses rely on accepted methodologies and whether the analyses are correct are issues for trial. . . . [T]hese issues are common to the class." The court found that plaintiffs had adequately met its concerns regarding Xitco: "Xitco has now sufficiently identified the documents she intends to use to support her calculation of cost of repair/diminution in value/damages and profit/restitution/disgorgement. Plaintiffs' experts Sukumar and Pinsonneault provide further support for Xitco's calculation of cost of repair/diminution in value/damages and profit/restitution/disgorgement based [on] accepted methodologies and based on Apple's own documents. . . . Although Apple argues its documents do not provide the information necessary to Plaintiffs' experts' analysis, the merits of Plaintiffs' experts' analysis and conclusions are common to the class and are issues for trial." The court concluded, "Plaintiffs meet their burden of establishing a method by which the fact of damages can be proven on a class-wide basis and by which trial of these issues will be effectively managed."

Apple challenged the court's class certification order by petition for writ of mandate in this court. Apple argued the court erred because it failed to apply *Sargon*,

because it did not credit evidence of postsale events, and because it found that common issues would predominate at trial. Apple requested a stay of the underlying litigation and a peremptory writ of mandate directing the trial court to vacate its order granting plaintiffs' motion for class certification and to issue an order denying the motion. We requested and received an informal response from the plaintiffs. After considering the petition and the informal response, we stayed the litigation and issued an order to show cause why the relief sought by Apple should not be granted. This proceeding followed.

## DISCUSSION

### I

#### *Class Certification Overview*

"The party advocating class treatment must demonstrate the existence of an ascertainable and sufficiently numerous class, a well-defined community of interest, and substantial benefits from certification that render proceeding as a class superior to the alternatives. [Citations.] In turn, the "community of interest requirement embodies three factors: (1) predominant common questions of law or fact; (2) class representatives with claims or defenses typical of the class; and (3) class representatives who can adequately represent the class." ' " (*Brinker Restaurant Corp. v. Superior Court* (2012) 53 Cal.4th 1004, 1021 (*Brinker*).

"The 'ultimate question' the element of predominance presents is whether 'the issues which may be jointly tried, when compared with those requiring separate adjudication, are so numerous or substantial that the maintenance of a class action would be advantageous to the judicial process and to the litigants.' [Citations.] The answer

hinges on 'whether the theory of recovery advanced by the proponents of certification is, as an analytical matter, likely to prove amenable to class treatment.' [Citation.] A court must examine the allegations of the complaint and supporting declarations [citation] and consider whether the legal and factual issues they present are such that their resolution in a single class proceeding would be both desirable and feasible." (*Brinker, supra*, 53 Cal.4th at pp. 1021-1022, fn. omitted.) Plaintiffs must show " 'by a preponderance of the evidence that the class action proceeding is superior to alternate means for a fair and efficient adjudication of the litigation.' " (*Sav-On Drug Stores, Inc. v. Superior Court* (2004) 34 Cal.4th 319, 332.)<sup>2</sup>

"[T]he court does not look at the parties' evidence under a shifting burden of proof. The burden remains with the proponent of class certification to show common issues predominate. However, when assessing whether the plaintiff has satisfied that burden, the evidence must be evaluated under the prism of the plaintiff's theory of recovery." (*Department of Fish and Game v. Superior Court* (2011) 197 Cal.App.4th 1323, 1349 (*Department of Fish and Game*).) A plaintiff's theory of recovery, moreover, must conform to the legal elements of the causes of action in its complaint, and it is those elements which must be considered to determine whether common issues predominate.

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<sup>2</sup> "The CLRA has its own class action requirements, set forth in Civil Code section 1781. Both CLRA and non-CLRA class actions require ascertainability, commonality, typicality, and adequacy of representation. The distinction between a CLRA and non-CLRA class action is that a non-CLRA class action plaintiff must also establish that pursuit of the class action will result in substantial benefit to the litigants and the court, while a CLRA class action plaintiff need not do so." (*In re Vioxx Class Cases* (2009) 180 Cal.App.4th 116, 128, fn. 12.)

(*Lockheed Martin Corp. v. Superior Court* (2003) 29 Cal.4th 1096, 1106; see *Brinker, supra*, 53 Cal.4th at p. 1024.)

"Although predominance of common issues is often a major factor in a certification analysis, it is not the only consideration. In certifying a class action, the court must also conclude that litigation of individual issues, including those arising from affirmative defenses, can be managed fairly and efficiently. [Citation.] '[W]hether in a given case affirmative defenses should lead a court to approve or reject certification will hinge on the manageability of any individual issues.' " (*Duran v. U.S. Bank National Assn.* (2014) 59 Cal.4th 1, 28-29 (*Duran*).)

"On review of a class certification order, an appellate court's inquiry is narrowly circumscribed. 'The decision to certify a class rests squarely within the discretion of the trial court, and we afford that decision great deference on appeal, reversing only for a manifest abuse of discretion: "Because trial courts are ideally situated to evaluate the efficiencies and practicalities of permitting group action, they are afforded great discretion in granting or denying certification." [Citation.] A certification order generally will not be disturbed unless (1) it is unsupported by substantial evidence, (2) it rests on improper criteria, or (3) it rests on erroneous legal assumptions. [Citations.]' [Citations.] Predominance is a factual question; accordingly, the trial court's finding that common issues predominate generally is reviewed for substantial evidence. [Citation.] We must '[p]resum[e] in favor of the certification order . . . the existence of every fact the trial court could reasonably deduce from the record . . . .' " (*Brinker, supra*, 53 Cal.4th at p. 1022.)

## II

### *Expert Opinion Evidence in Class Certification*

As the parties and the trial court implicitly recognized, the court may consider only *admissible* expert opinion evidence at class certification. (See, e.g., *Mora v. Big Lots Stores, Inc.* (2011) 194 Cal.App.4th 496, 512-514; *Carabini v. Superior Court* (1994) 26 Cal.App.4th 239, 245.) The reasons for such a limitation are obvious. A trial court cannot make an informed or reliable determination on the basis of inadmissible expert opinion evidence. And certifying a proposed class based on inadmissible expert opinion evidence would merely lead to its exclusion at trial, imperiling continued certification of the class and wasting the time and resources of the parties and the court. The issue in this writ proceeding is simply whether the *Sargon* standard of admissibility applies to expert opinion evidence submitted in connection with class certification motions. The proper standard of admissibility is a legal issue, which we review de novo. (See *Lockheed Litigation Cases* (2004) 115 Cal.App.4th 558, 564.)

The Evidence Code provides the framework for the admissibility of expert opinion evidence. "If a witness is testifying as an expert, his testimony in the form of an opinion is limited to such an opinion as is: [¶] (a) Related to a subject that is sufficiently beyond common experience that the opinion of an expert would assist the trier of fact; and [¶] (b) Based on matter (including his special knowledge, skill, experience, training, and education) perceived by or personally known to the witness or made known to him at or before the hearing, whether or not admissible, that is of a type that reasonably may be relied upon by an expert in forming an opinion upon the subject to which his testimony

relates, unless an expert is precluded by law from using such matter as a basis for his opinion." (Evid. Code, § 801.) An opinion based in whole or in part on an improper matter may be excluded. (*Id.*, § 803.) To determine the admissibility of an expert's opinion evidence, the court may in its discretion require examination of an expert "concerning the matter upon which his opinion is based" before the expert is allowed to testify. (*Id.*, § 802.)

In *Sargon*, our Supreme Court built on prior interpretations of these statutes and provided definitive guidance to courts considering the admissibility of expert opinion evidence. "[U]nder Evidence Code sections 801, subdivision (b), and 802, the trial court acts as a gatekeeper to exclude expert opinion testimony that is (1) based on matter of a type on which an expert may not reasonably rely, (2) based on reasons unsupported by the material on which the expert relies, or (3) speculative." (*Sargon, supra*, 55 Cal.4th at pp. 771-772.) "This means that a court may inquire into, not only the type of material on which an expert relies, but also whether that material actually supports the expert's reasoning. 'A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered.'" (*Id.* at p. 771.)

"The trial court's preliminary determination whether the expert opinion is founded on sound logic is not a decision on its persuasiveness. The court must not weigh an opinion's probative value or substitute its own opinion for the expert's opinion. Rather, the court must simply determine whether the matter relied on can provide a reasonable basis for the opinion or whether that opinion is based on a leap of logic or conjecture. The court does not resolve scientific controversies. Rather, it conducts a 'circumscribed

inquiry' to 'determine whether, as a matter of logic, the studies and other information cited by experts adequately support the conclusion that the expert's general theory or technique is valid.' [Citation.] The goal of trial court gatekeeping is simply to exclude 'clearly invalid and unreliable' expert opinion. [Citation.] In short, the gatekeeper's role 'is to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.' " (*Sargon, supra*, 55 Cal.4th at p. 772.)

"[T]he gatekeeper's focus 'must be solely on principles and methodology, not on the conclusions that they generate.' " (*Sargon, supra*, 55 Cal.4th at p. 772.) The gatekeeper does not simply choose between competing expert opinions; the fact that one expert's testimony is reliable does not mean a competing expert's testimony is unreliable. (*Ibid.*) The standard " 'is broad enough to permit testimony that is the product of competing principles or methods in the same field of expertise.' " (*Ibid.*)

Although *Sargon* involved expert opinion evidence presented at trial, the Supreme Court's discussion was not limited to that context. *Sargon* interpreted the relevant provisions of the Evidence Code. Its interpretation therefore applies wherever the Evidence Code does. For example, courts have applied *Sargon* to declarations submitted in connection with motions for summary judgment and summary adjudication. (See, e.g.,

*Sanchez v. Kern Emergency Medical Transportation Corp.* (2017) 8 Cal.App.5th 146, 156; *Shiffer v. CBS Corp.* (2015) 240 Cal.App.4th 246, 253.)<sup>3</sup>

We see no reason why *Sargon* should not apply equally in the context of class certification motions. There is only one standard for admissibility of expert opinion evidence in California, and *Sargon* describes that standard. We are bound to adhere to that decision. (*Auto Equity Sales, Inc. v. Superior Court* (1962) 57 Cal.2d 450, 455.) And, even were we free to disregard *Sargon* (and we are not), we would conclude that its standards for admissibility apply here. Although class certification is merely a procedural device, and not a determination on the merits, it has profound consequences for the trial court's management of the litigation and the rights of the parties. The

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<sup>3</sup> One court, distinguishing *Sargon*, held that an expert declaration in opposition to summary judgment should not have been excluded even though the expert's description of his methodology was relatively thin. (See *Garrett v. Howmedica Osteonics Corp.* (2013) 214 Cal.App.4th 173, 188-189 (*Garrett*)). The court relied upon the rule on summary judgment that an opposing party's evidence must be liberally construed: "The rule that a trial court must liberally construe the evidence submitted in opposition to a summary judgment motion applies in ruling on both the admissibility of expert testimony and its sufficiency to create a triable issue of fact. [Citations.] In light of the rule of liberal construction, a reasoned explanation required in an expert declaration filed in opposition to a summary judgment motion need not be as detailed or extensive as that required in expert testimony presented in support of a summary judgment motion or at trial." (*Id.* at p. 189.) Even accepting *Garrett's* analysis, no such rule applies at class certification. While the court generally assumes on a motion for class certification that plaintiffs' claims have merit (*Brinker, supra*, 53 Cal.4th at p. 1023), no such assumption applies to the issues in dispute on such a motion: numerosity, ascertainability, commonality, and superiority. And, "[w]hen evidence or legal issues germane to the certification question bear as well on aspects of the merits, a court may properly evaluate them. [Citations.] The rule is that a court may 'consider[] how various claims and defenses relate and may affect the course of the litigation' even though such 'considerations . . . may overlap the case's merits.'" (*Id.* at pp. 1023-1024.) "In particular, whether common or individual questions predominate will often depend upon resolution of issues closely tied to the merits." (*Id.* at p. 1024.)

corrosive effects of improper expert opinion testimony may be felt with substantial force at class certification, just as at summary judgment or at trial. The trial court's gatekeeping role serves a similar salutary purpose in each of these contexts.

Federal courts apply their analogous standard under *Daubert v. Merrell Dow Pharmaceuticals, Inc.* (1993) 509 U.S. 579 (*Daubert*) to expert opinion evidence submitted in connection with class certification motions. (See, e.g., *Ellis v. Costco Wholesale Corp.* (9th Cir. 2011) 657 F.3d 970, 982; *Kamakahi v. American Society for Reproductive Medicine* (N.D.Cal. 2015) 305 F.R.D. 164, 176; *Stone v. Advance America* (S.D.Cal. 2011) 278 F.R.D. 562, 566.) Although some federal courts appear to have a largely semantic disagreement over whether to apply a "full" or "focused" *Daubert* analysis, the substantive result appears the same. (See, e.g., *In re Zurn Pex Plumbing Products Liability Litigation* (8th Cir. 2011) 644 F.3d 604, 614; *Fosmire v. Progressive Max Insurance Co.* (W.D.Wash. 2011) 277 F.R.D. 625, 629.) The fact that federal courts apply their *Daubert* standard at class certification shows both the feasibility and desirability of ensuring the reliability of expert opinion evidence at this stage.

Of course, a trial court applying the *Sargon* standard at class certification should be cognizant of limited scope of its inquiry at that stage, when compared with the inquiry at trial. A court may find that it need not rule on the admissibility of certain expert opinion evidence offered in connection with class certification because it is irrelevant or unnecessary for its decision. The court's ability to disregard irrelevant or extraneous opinion evidence provides a certain flexibility not available during jury trials. But where, for example, expert opinion evidence provides the basis for a plaintiff's arguments

regarding numerosity, ascertainability, commonality, or superiority (or a defendant's opposition thereto), a trial court must assess that evidence under *Sargon*.

Resisting this conclusion, plaintiffs claim that applying *Sargon* would require the trial court to hold evidentiary hearings under Evidence Code section 802 for every expert who provides evidence at class certification. Plaintiffs interpret *Sargon* primarily as describing the "process" for admitting expert evidence at trial, which plaintiffs assert requires an Evidence Code section 802 hearing. We disagree. *Sargon*'s discussion of admissibility is plainly substantive, and nothing in that opinion mandates or even encourages holding such a hearing for every expert, at trial or otherwise. Whether to hold a hearing remains in the trial court's discretion. And *Sargon*'s substance is not unduly burdensome for trial courts. It merely ensures that expert opinion evidence is reasonable, reliable, and logical.

The trial court here expressly declined to apply *Sargon*. In its order granting plaintiffs' motion for class certification, it wrote that Apple's criticisms of plaintiffs' experts based on *Sargon* were issues for trial: "The issues Apple raises with respect to the materials Plaintiffs' experts will rely upon in forming their opinions and whether Plaintiffs' experts' analysis rely on accepted methodologies and whether the analyses are correct are issues for trial." Similarly, regarding the Apple documents Xitco proposed to rely on for cost of repair, the court wrote, "Although Apple argues its documents do not provide the information necessary to Plaintiffs' experts' analysis, the merits of Plaintiffs' experts['] analysis and conclusions are common to the class and are issues for trial." The court's analysis does not follow *Sargon*, which expressly requires trial courts to consider

the materials and methodologies of proposed expert opinion evidence. (*Sargon, supra*, 55 Cal.4th at pp. 771-772.) Where the matter relied upon does not provide a reasonable basis for the opinion (e.g., because it is irrelevant) or the opinion is based on a leap of logic or conjecture, the opinion may be excluded. (*Id.* at p. 772.) Such deficiencies may well be "common" to a proposed class, but that does not mean the class should be certified on that basis. The court erred by holding otherwise.

### III

#### *Prejudice*

Even though the court erred by disregarding *Sargon*, we must consider whether that error was prejudicial, i.e., whether there is a reasonable probability the result would have been more favorable to Apple absent the error. "[A] 'probability' in this context does not mean more likely than not, but merely a *reasonable chance*, more than an *abstract possibility*." (*College Hospital Inc. v. Superior Court* (1994) 8 Cal.4th 704, 715.) For reasons we will explain, we conclude there is a reasonable chance the court would have denied plaintiffs' motion for class certification if it had applied the correct admissibility standard under *Sargon* to plaintiffs' expert opinion evidence.

The record of proceedings below shows that plaintiffs' expert opinion evidence was crucial to the trial court's decision. The trial court twice refused to grant plaintiffs' motion on the grounds that plaintiffs had not adequately shown classwide injury and damages. Only after the third round of briefing, with a second supplemental declaration from Xitco and declarations from new experts Pinsonneault and Sukumar, did the trial court believe class certification was proper. The trial court's hesitation appears to reflect,

in part, evidence that a number of significant individual questions were raised by plaintiffs' claims. For example, the nature and extent of the power button defect were not consistent across each proposed class, or even among the purchasers of a specified iPhone. Nor were class members' interactions with Apple consistent across each class. Some contacted Apple regarding warranty service for their iPhones, while others did not contact Apple at all.

In contrast to these individual issues, plaintiffs' experts offered the possibility that the fact and amount of damages could be decided on a classwide basis. " 'As a general rule if the defendant's liability can be determined by facts common to all members of the class, a class will be certified even if the members must individually prove their damages.' " (*Brinker, supra*, 53 Cal.4th at p. 1022.) In other words, "class treatment of a claim is appropriate if the facts necessary to establish liability are capable of common proof, including the so-called ' "fact of damage," ' that is, the existence of harm establishing an entitlement to damages." (*Safeway, Inc. v. Superior Court* (2015) 238 Cal.App.4th 1138, 1154.) "However, [the Supreme Court has] cautioned that class treatment is not appropriate 'if every member of the alleged class would be required to litigate numerous and substantial questions determining his individual right to recover following the "class judgment" ' on common issues." (*Duran, supra*, 59 Cal.4th at p. 28.)

Given the individual questions raised by plaintiffs' claims, their ability to demonstrate the fact of damage on a classwide basis, and present a classwide damages model, would have been persuasive to the trial court in establishing the predominance of common questions and the superiority of the class action procedure. The trial court's

order extensively relies on plaintiffs' experts' declarations. If the trial court had applied *Sargon*, however, there is a reasonable chance it would have excluded these declarations and found plaintiffs' showing to be lacking.

Plaintiffs' theory of recovery appears to be that every iPhone purchaser in the proposed classes was harmed *at the time of purchase* because the power button on their iPhone was defective and would later stop working or work intermittently.<sup>4</sup> But, with the exception of Sukumar, their experts focused on other measures of damage (cost of repair and diminished trade-in value) that only arose after purchase and, even then, only affected certain purchasers in the proposed classes. Xitco explained that she could use Apple documents to calculate Apple's internal cost of repair and the diminished trade-in value to calculate damages on a classwide basis, but she did not explain how those calculations would lead to a reasonable estimation of the damage suffered by the class at the time of purchase. As the trial court recognized, Xitco is not an economist and is not qualified to opine on the issue of whether cost of repair or diminished trade-in value would be equivalent to the diminution in value suffered by class members at the time of purchase. Pinsonneault appears to have been more qualified to opine on such a question, but his relevant opinions are purely conclusory. He claimed that Apple documents regarding iPhone trade-in values "can be used to estimate the diminution in value that the Class Plaintiffs have suffered on a classwide basis," but he did not explain how. Would Pinsonneault simply use the diminished trade-in value, without any further analysis, as

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<sup>4</sup> We express no opinion whether this theory of recovery is valid under any cause of action asserted by plaintiffs.

the diminution in value at the time of purchase? And, if so, why are the two situations and values economically equivalent? An unknown methodology is the equivalent of no methodology, and there is a reasonable chance the trial court would have excluded such conclusory or unsupported opinions if it had applied *Sargon*. Moreover, as Apple points out, the internal Apple documents Xitco and Pinsonneault rely upon for their cost of repair and diminished trade-in values may not even be relevant to the values Xitco and Pinsonneault attribute to them. Under *Sargon*, expert opinions based on irrelevant or unreliable materials are also suspect.<sup>5</sup>

Sukumar's proposed methodology highlights the potential inadequacies of Xitco and Pinsonneault's approach and raises issues of its own. Unlike Xitco and Pinsonneault, Sukumar described a conjoint analysis study that is consciously directed at the relevant moment in time: when a class member purchases a defective iPhone. Sukumar's study would attempt to discover the value consumers placed on a functioning power button at the time of purchase by comparing it with other features such as a camera, a touchscreen, a speakerphone, and a volume control button. But the record reflects serious and

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<sup>5</sup> Apple argues that Xitco and Pinsonneault's opinions are unsound because they do not account for the variation in class members' experiences after purchasing their iPhone, including whether they actually received full trade-in value or whether they paid for repairs. Xitco was also impeached by her lack of knowledge regarding the proposed classes and their characteristics. Given the unknowns in their proposed methodologies, however, it is difficult to assess the consequences of Apple's arguments. Certainly, as we have discussed, their decision to use postsale values to approximate the diminution in value at the time of purchase raises serious methodological questions that Xitco and Pinsonneault do not address, including the effect of postsale events on their analyses and conclusions. Given our disposition, we need not comment further on the appropriateness of considering postsale events.

apparently well-founded concerns that Sukumar's proposal would misuse a particular conjoint analysis method, Formula 14, by applying it to an important feature such as a power button. While we need not conclusively adjudicate those concerns here, based on our review of the record, there is at least a reasonable chance Sukumar's opinions would have been excluded as unreliable had the trial court applied *Sargon* to assess his methodology.

Setting aside their theory of recovery, plaintiffs also proposed to use expert opinion evidence to determine the size of the proposed classes. Plaintiffs' expert Schenkelberg opined that he could use internal Apple documents to estimate a power button failure rate for the affected iPhones.<sup>6</sup> Plaintiffs initially proposed to multiply Schenkelberg's failure rate by the number of identified iPhones sold to determine the class size. When plaintiffs modified their proposed classes to exclude purchasers who received Apple warranty service, they modified their class size formula as follows: (Number of identified iPhones sold - number of identified iPhones repaired or replaced by Apple) x (Failure rate) = Class size. Based on Schenkelberg's description of his failure rate, this formula appears seriously flawed. If we assume for purposes of illustration Apple sold 100 iPhones, with a failure rate of 25 percent (i.e., 25 phones), and Apple repaired or replaced 20 iPhones, the proposed class should be five, since that is the

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<sup>6</sup> Apple criticizes Schenkelberg for using irrelevant documents, but we need not consider that criticism here. When the trial court reconsiders plaintiffs' motion, it should assess Schenkelberg's opinions under *Sargon*, including whether the materials Schenkelberg relies upon are appropriate for his intended purpose and support his reasoning. (See *Sargon, supra*, 55 Cal.4th at p. 771.)

universe of defective but unrepaired iPhones. Under plaintiffs' formula, however, the class would consist of 20 iPhones. While the decision will be for the trial court in the first instance, it is difficult to see on the current record how plaintiffs' formula could be found reliable.

Plaintiffs argue that the trial court's ruling would not have changed, even if *Sargon* were applied, because "*Sargon* did not make new law or alter the evidentiary standard" and the trial court followed pre-*Sargon* authorities considering expert opinion evidence and class certification, including *Department of Fish and Game, supra*, 197 Cal.App.4th 1323 and *In re Cipro Cases I and II* (2004) 121 Cal.App.4th 402 (*Cipro*). We need not decide whether *Sargon* departed from prior law. It now governs the admissibility of expert opinion evidence, and the trial court erred by disregarding it, as we have discussed above.

The authorities plaintiffs cite do not directly bear on the *admissibility* of expert opinion evidence at the trial court level. Instead, they primarily consider the *substantiality* of expert opinion evidence at the appellate court level, i.e., whether expert opinion evidence admitted by the trial court constitutes substantial evidence to support the trial court's class certification order on appeal. These issues, while related, are distinct. Admissibility is governed by the Evidence Code, as interpreted by *Sargon* and other authorities. Substantiality is a rule of appellate review, with specific criteria for expert opinion evidence. (See *Cipro, supra*, 121 Cal.App.4th at p. 412 ["Expert opinion constitutes substantial evidence to support a class certification order if it is based on

relevant, probative facts, as opposed to mere guesswork, surmise, or conjecture."]; see also *Lockheed Martin Corp. v. Superior Court*, *supra*, 29 Cal.4th at p. 1110.)

*Department of Fish and Game* linked these two issues by directing trial courts to consider the basis of an expert's opinion at class certification under the standards used by appellate courts: "In considering the expert evidence a plaintiff proposes to offer, the basis of the expert's opinions must be examined to determine if it is supported by the record. '[A]n expert's opinion is no better than the facts upon which it is based.' [Citation.] 'An expert's opinion which rests upon guess, surmise or conjecture, rather than relevant, probative facts, cannot constitute substantial evidence.' [Citation.] In assessing the plaintiff's expert evidence, the court should consider all the evidence, including that of the defendant's experts, in order to determine if the plaintiff's evidence establishes the predominance of common issues on the merits of the case." (*Department of Fish and Game*, *supra*, 197 Cal.App.4th at p. 1351.)

While *Department of Fish and Game* correctly identified certain circumstances in which a trial court should disregard or exclude expert opinion evidence (since it would not even be considered substantial evidence on appeal), we need not dwell on its discussion. *Sargon* now provides the applicable standard for admissibility at the trial court level, at class certification and otherwise. In particular, a trial court must examine the type of material on which an expert relies, whether that material actually supports the expert's reasoning, and whether the expert's methodology is sound. (*Sargon*, *supra*, 55 Cal.4th at p. 772.) For the reasons we have explained, if the trial court had undertaken such an analysis here, there is a reasonable probability it would have excluded substantial

portions of plaintiffs' expert opinion evidence and declined to certify the proposed classes.<sup>7</sup>

#### IV

##### *Other Issues*

In addition to the foregoing arguments based on *Sargon*, Apple contends the trial court abused its discretion by certifying the proposed classes because individual issues would predominate at trial. Apple relies primarily on the differences in the nature of the alleged defect and Apple's knowledge of the alleged defect across different iPhones. Apple also points to the need for each individual class member to identify when their power button stopped working or worked intermittently to determine whether they may recover. On this record, and in light of our conclusion that the trial court's order must be vacated for other reasons, we cannot say Apple has justified the issuance of an extraordinary writ directing the trial court to deny plaintiffs' motion at this time. The trial court should have the opportunity, in the first instance, to determine whether to certify the proposed classes under the correct legal standards, including *Sargon*.

Similarly, as discussed briefly above (see fn. 5, *ante*), Apple's contentions regarding postsale events are largely moot given our disposition. Those contentions are primarily criticisms of plaintiffs' expert opinion evidence and the theories of recovery they claim to embody. Since the trial court will reconsider the admissibility of plaintiffs'

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<sup>7</sup> We believe framing the court's failure to apply *Sargon* as an error in admitting evidence is the correct approach. However, our conclusion would be unchanged were we to interpret the court's error as applying "improper criteria" or an "erroneous legal assumption[]" in its class certification order. (See *Brinker, supra*, 53 Cal.4th at p. 1022.)

expert opinion evidence, it is proper for it to consider Apple's criticisms in the first instance as well.

Plaintiffs contend that writ relief is not appropriate under the circumstances here. But courts have recognized that writs may be issued to correct erroneous class certification rulings, especially when based on incorrect legal standards. (See *Blue Chip Stamps v. Superior Court* (1976) 18 Cal.3d 381, 387, fn. 4; *Department of Fish and Game, supra*, 197 Cal.App.4th at p. 1364.) Plaintiffs' contention is unpersuasive.

#### DISPOSITION

Let a peremptory writ of mandate issue directing the superior court to vacate its April 14, 2017, order granting plaintiffs' motion for class certification and reconsider that motion in accordance with the views expressed herein. The petition is denied without prejudice in all other respects. The stay issued June 29, 2017, is vacated. Apple is awarded its costs. (Cal. Rules of Court, rule 8.493(a).)

O'ROURKE, J.

WE CONCUR:

HUFFMAN, Acting P. J.

HALLER, J.