

1 HONORABLE RONALD B. LEIGHTON

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6 UNITED STATES DISTRICT COURT
7 WESTERN DISTRICT OF WASHINGTON
8 AT TACOMA

9 ANDRE THOMPSON, a single man;
and BRYSON CHAPLIN, a single man,

10 Plaintiffs,

11 v.

12 CITY OF OLYMPIA, a local
government entity; and RYAN
DONALD and "JANE DOE"
13 DONALD, individually and the marital
community comprised thereof,

14 Defendants.
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CASE NO. 3:18-cv-05267-RBL

ORDER ON PLAINTIFFS' MOTION
TO EXCLUDE EXPERT'S OPINIONS

DKT. # 50

16 INTRODUCTION

17 THIS MATTER is before the Court on Plaintiffs Andre Thompson and Bryson Chaplin's
18 Motion to Exclude Expert's Opinions. Dkt. # 50. This case concerns a shooting that occurred in
19 Olympia in the early morning hours of May 21, 2015, by the side of a road. Defendant Ryan
20 Donald, a police officer, stopped Plaintiffs on suspicion of shoplifting and assault. From there,
21 the parties' accounts diverge; Donald has testified that he shot Thompson and Chaplin only after
22 they attacked him, while Plaintiffs maintain that they simply ran away and were pursued by
23 Donald.
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1 Defendants have retained Louis Cheng, a biomechanical engineer, to provide expert
2 testimony at trial. Much of Cheng’s opinions on the case derive from a reenactment of the May
3 21 incident by Officer Donald, which Cheng captured and digitally rendered using his 3-D
4 camera. Plaintiffs now seek to exclude Cheng’s opinions related to these graphics, arguing that
5 they are not based on any reliable scientific methodology or theory.

6 For the following reasons, Plaintiffs’ Motion is GRANTED.

7 **BACKGROUND**

8 In his April 20, 2019 report, Cheng states that he is “specialized in the field of accident
9 reconstruction, injury biomechanics and motion analysis of the human body.” Dkt. # 51, Ex. A,
10 at 1. Cheng obtained his PhD in structural engineering and mechanics from U.C. Berkeley, has
11 published numerous papers on biomechanics, and has worked in both the private sector and
12 academia. Dkt. # 55, Ex. A. He describes his assigned task in this case as “perform[ing] a motion
13 analysis, accident reconstruction, and biomechanical analysis of the May 21, 2015 incident.”
14 Dkt. # 51, Ex. A, at 1.

15 Although Cheng states that he reviewed numerous materials in the case, Cheng
16 concluded that he could not accurately reconstruct the parties’ physical movements on May 21
17 based on this alone. Consequently, he decided to stage a reenactment orchestrated by Donald
18 himself. The reenactment was performed at the scene of the incident using a stand-in vehicle and
19 two of Donald’s fellow police officers. Dkt. # 55 at 5. Kenton S. Wong, Defendants’ forensics
20 expert, was also present. Defendants utilized a training firearm and skateboards similar to
21 Thompson and Chaplin’s. *Id.* Rather than direct Donald’s movements, Cheng emphasizes that he
22 allowed Donald to control the stand-ins and reenact his own movements from memory. Cheng
23 then captured the action in “five separate motion sequences” using his 3-D camera. The
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1 sequences are titled: “initial charging,” “first encounter,” “struggle,” “attack near bushes,” and
2 “Thompson shooting.” Dkt. # 51, Ex. A, at 7-9.

3 After capturing the images using his 3-D camera, Cheng turned the resulting “point cloud
4 data” into digitized 3-D images. *Id.* at 10-13. These images depict the five sequences and include
5 labels for the different parties and physical evidence at the scene. *Id.* at 13-19. While the body
6 positions in the first three sequences are apparently based on Donald’s reenactment alone, Cheng
7 states that the last two are also based on physical evidence such as blood stains. Dkt. # 51, Ex. A,
8 at 18. Cheng’s report and declaration go on to describe the graphics and make a number of
9 conclusions about the accuracy of Donald’s account and how it relates to the physical evidence.

10 **DISCUSSION**

11 Under Rule 702, a witness may provide expert testimony if: “(a) the expert’s scientific,
12 technical, or other specialized knowledge will help the trier of fact to understand the evidence or
13 to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the
14 testimony is the product of reliable principles and methods; and (d) the expert has reliably
15 applied the principles and methods to the facts of the case.” Fed. R. Civ. P. 702. “District judges
16 play an active and important role as gatekeepers examining the full picture of the experts’
17 methodology and preventing shoddy expert testimony and junk science from reaching the jury.”
18 *Murray v. S. Route Mar. SA*, 870 F.3d 915, 923 (9th Cir. 2017).

19 In *Daubert v. Merrell Dow Pharmaceuticals, Inc. (Daubert I)*, the Supreme Court
20 interpreted the requirements of Rule 702. The Court first determined that an expert’s opinion
21 must be reliable—i.e., an expert may only testify about knowledge “derived from the scientific
22 method” and must avoid “subjective belief or unsupported speculation.” 509 U.S. 579, 590
23 (1993); *see also Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 141, 148 (1999) (holding that a
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1 court's obligation to ensure expert reliability also applies for technical, rather than scientific,
2 expert testimony). A theory or technique may be "scientific" if it can be peer-tested, has been
3 subjected to peer review, has an acceptable rate of error, and is generally accepted in the relevant
4 scientific community. *Id.* at 593-94. However, the Rule 702 analysis is "flexible" and "[i]ts
5 overarching subject is the scientific validity . . . of the principles that underlie a proposed
6 submission." *Daubert I*, 509 U.S. at 594-95.

7 Another "very significant fact to be considered is whether the experts are proposing to
8 testify about matters growing naturally and directly out of research they have conducted
9 independent of the litigation, or whether they have developed their opinions expressly for
10 purposes of testifying." *Daubert v. Merrell Dow Pharm., Inc. (Daubert II)*, 43 F.3d 1311, 1317
11 (9th Cir. 1995). A party whose expert testimony is not based on independent research "must
12 come forward with other objective, verifiable evidence that the testimony is based on
13 scientifically valid principles." *Id.* at 1317-18 (internal quotation omitted).

14 Second, the Court explained that an expert's opinion also must be "assist the trier of fact
15 to understand or determine a fact in issue." *Daubert I*, 509 U.S. at 592. In other words, the
16 proffered testimony is only admissible if it "logically advances a material aspect of the proposing
17 party's case." *Daubert II*, 43 F.3d at 1315. For example, an expert's vague assertions about a
18 "statistically significant relationship between [a drug] and birth defects" do not help a trier of
19 fact who must determine whether there is a causal relationship on a more-likely-than-not basis.
20 *Id.* at 1321.

21 Here, Cheng's opinions related to Donald's reenactment fail under the *Daubert* standard.
22 To the extent Cheng opines about the reenactment as if it were an accurate reconstruction, those
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1 opinions are not based on reliable methodology.¹ While Cheng is qualified as a reconstruction
2 expert and states that he reviewed the physical evidence in the case, he seems to have relied
3 solely on Donald's years-old memories when creating his graphics.² Besides that, Cheng merely
4 states that he recorded the movements and turned the resulting "point cloud data" into "human
5 figure representation[s]." Dkt. # 51, Ex. A, at 10. Cheng states that "[t]his motion capture
6 methodology is generally accepted in the biomechanical community" to "reliably and accurately
7 measure and depict human body movement." Dkt. # 55 at 3. But these vague statements do not
8 explain how Cheng's methods allowed him to vouch for the *objective* accuracy of his images for
9 reconstructive purposes.

10 Indeed, in his deposition, Cheng emphasizes that he tried his best *not* to influence Donald
11 as he staged the reenactment with the stand-ins. Dkt. # 51, Ex. B, at 21, 23, 27. This is very
12 different from other cases where an expert relied on many pieces of evidence to create a
13 reconstruction. *See, e.g., Kirksey v. Schindler Elevator Corp.*, No. CV 15-0115-WS-N, 2016 WL
14 5239874, at *6 (S.D. Ala. Sept. 21, 2016) (expert's 3-D model was based on "frame-by-frame
15 analysis of the surveillance video" and data collected at a site inspection, as well as additional
16 calculations). In contrast, the main benefits of Cheng's graphics appear limited to manipulating
17 angles and taking measurements. Defendants cannot have it both ways; they cannot say that

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20 ¹ Curiously, Cheng's report both states that his graphics are "not an attempt to recount the full details of the events
21 that unfolded that evening" but also describes them as though they are objectively accurate. Dkt. # 51, Ex. A, at 6.
22 For example, the report states, "During the struggle, when Officer Donald was reportedly pushed downward by Mr.
23 Thompson, shots were fired, producing the bullet impact marks and fragment at physical evidence #3 and #6 as
24 shown." *Id.* at 15.

² Cheng's report indicates that the graphics in the last two sequences were also based on the physical evidence at the
scene. Dkt. # 51, Ex. A, at 18-19. However, the report provides no information about how Cheng analyzed the
physical evidence (such as blood and shell casings) or why he is qualified to do so. If these graphics were created in
conjunction with Wong, Defendants' forensics expert, then they may qualify as a valid reconstruction, but Cheng's
report and expertise alone are insufficient.

1 Cheng's graphics are both a "hands-off" reenactment of Donald's memory *and* an accurate
2 depiction assembled scientifically from all the evidence.

3 Other aspects of Cheng's report and declaration treat the reenactment as an experiment
4 conducted to see if Donald's account of events holds water. However, Cheng's opinions along
5 these lines are also not based on any scientific methodology. Instead, Cheng reached broad
6 conclusions that favor Defendants without presenting any "objective, verifiable evidence" of
7 underlying scientific research or principles. *See Daubert II*, 43 F.3d at 1317-18. This is simply
8 not enough under *Daubert*.

9 For example, Cheng opines that "Officer Donald's struggle scenario explains the
10 observed injuries to the right arm of Mr. Chaplin, on a more probable than not basis." Dkt. # 51,
11 Ex. A, at 16. Besides vaguely referencing his "biomechanical capture of the movement," Cheng
12 does not state, much less explain, any scientific basis for reaching this probabilistic conclusion.³
13 Dkt. # 55 at 6. Cheng apparently did not recreate Plaintiffs' version of events, so it is difficult to
14 see how he could have determined that Donald's version is the most likely. If there is some
15 inherent reason why Chaplin's injury could only have occurred in this type of physical
16 configuration, Cheng does not supply it.

17 Cheng offers a similar opinion that "Chaplin [running] out of the woods with the
18 skateboard raised over his head . . . is the best explanation for the bullet entering the top of the
19 shoulder." Dkt. # 55 at 10. For support, Cheng surmises that this explanation is more likely than
20 Donald shooting Chaplin from a tall ladder or as Chaplin bent down and presented the top of his
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22 ³ At many points in his Declaration, Cheng vaguely states that his use of a 3-D camera allows him to "understand,"
23 "measure," and "evaluate" human movement. Dkt. # 55 at 3, 6. He fails, however, to elaborate on what his
24 "analysis" consists of or how it could yield conclusions about a specific version of events being more likely than
others.

1 shoulder. *Id.* This is speculation, not science. Cheng cannot opine that Donald’s description of
2 events is most likely true without some valid scientific basis.

3 Cheng’s next conclusion is that, “[a]ccording to Mr. Kenton S. Wong, Officer Donald’s
4 scenario of the struggle and the subsequent shooting is consistent with the locations of the fabric
5 piece and the other physical evidence, such as the bullet casings.” Dkt. # 51, Ex. A, 17. This
6 opinion may be admissible if offered by Wong himself. However, Cheng’s conclusion about the
7 location of physical evidence appears to be completely derivative of Wong’s expertise. Although
8 Cheng implies in his declaration that Plaintiffs’ version of events would require that the black
9 fabric travel about 300 feet before landing, he does not explain why that scenario is less likely.
10 This may be because Cheng has no expertise in ballistics, as he admitted at his deposition.
11 Dkt. # 51, Ex. B, at 14-15.

12 Cheng also states that his computerized graphic of Thompson and Donald allows him to
13 “accurately measure the distance between the barrel end [of Donald’s gun] and the white shirt.”
14 *Id.* at 12-13. This would allow Wong to determine the likelihood of gunshot residue ending up on
15 Thompson’s shirt. *Id.* at 12. However, whether this measurement is, in fact, “accurate” again
16 depends on the overall accuracy of Cheng’s graphics. And as previously explained, Cheng does
17 not provide a scientific basis for believing that his graphics accurately represent the events of
18 May 21.

19 Finally, in his Declaration, Cheng offers an additional opinion that was apparently
20 concocted in response to Plaintiffs’ deposition questions about the disparities between Donald’s
21 reenactment and his prior statements. With respect to the images of the “initial struggle,” Cheng
22 opines that “minor variations of the relative arm positions between Thompson and Officer
23 Donald could result in the same direction of fire.” Dkt. # 55 at 8. Cheng apparently reached this
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1 conclusion by manipulating his 3-D images so that in one version Donald’s right arm is pinned to
2 his chest and in the other it is not. *Id.* at 8-9. This late-offered conclusion does not seem to rely
3 on anything more than fiddling with Cheng’s graphics to alter the body positions. Once again,
4 Cheng’s declaration is devoid of any explanation for why this new image is an accurate depiction
5 of the configuration Donald previously described. Indeed, this seems to be little more than a
6 picture designed to show that *some* permutation of the arm-pinning scenario Donald explained in
7 his prior statements could have provided a line of fire at Chaplin. This opinion is not reliably
8 scientific and not terribly helpful to a jury.

9 Defendants argue that Plaintiffs’ issues’ with Cheng’s opinions go to the credibility of the
10 underlying evidence and therefore should be addressed through cross-examination rather than
11 exclusion. Dkt. # 54 at 3. Defendants cite *Contreras v. Brown*, in which the court held that the
12 expert’s report, which relied on limited and questionable facts, was nonetheless based on
13 “sufficient” data to be admissible. No. CV-17-08217-PHX-JAT, 2018 WL 7254917, at *5 (D.
14 Ariz. Dec. 4, 2018). However, the *Contreras* court also approved of the expert’s “injury
15 threshold” methodology, which was supported by “peer-reviewed papers and articles [that]
16 demonstrate[ed] that this method has been tested, subjected to review, and is generally accepted
17 in the scientific community.” *Id.* at *4.

18 Here, in contrast, Defendants have presented no such established method supporting
19 Cheng’s conclusions. Cheng’s scientific methodology seems to have begun and ended with using
20 his 3-D camera to digitally reproduce Donald’s reenactment. Defendants insist that Cheng also
21 reviewed the physical evidence, but there is no indication that he applied any sort of scientific
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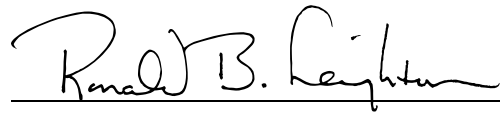
1 approach in analyzing it or was even qualified to do so.⁴ While it may not be the Court's role to
2 exclude expert opinions based on the weight of the underlying evidence, the Court does serve a
3 "gatekeeping function" regarding expert reliability that it may not delegate to the jury. *See*
4 *United States v. Ruvalcaba-Garcia*, 923 F.3d 1183, 1189 (9th Cir. 2019). Cheng's methods in
5 this case simply cannot support his broad conclusions about the accuracy of Donald's account.

6 CONCLUSION

7 For the reasons explained above, Plaintiffs' Motion is GRANTED. To the extent that
8 Cheng's testimony may be necessary to support the testimony of Expert Wong, Cheng may
9 testify regarding his creation of the graphics and their accurate depiction of a reenactment by
10 Donald and two other police officers. However, Cheng's independent expert opinions about the
11 objective accuracy of Donald's account are excluded.

12 IT IS SO ORDERED.

13 Dated this 16th day of August, 2019.

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15 Ronald B. Leighton
16 United States District Judge

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23 ⁴ The Court recognizes that this may well not be the case for Wong, who is an expert in forensics and seems to have
24 relied on both Cheng's digital images and his own analysis of the physical evidence in reaching conclusions.
However, Wong's opinions are not the subject of Plaintiffs' motion.