

# CASE STUDY PREPARED FROM ORIGINAL PUBLISHED OPINION

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### *People v Duenas* 8/6/12

#### **Expert Opinion Testimony; Computer Animation; Demonstrative Evidence**

The prosecution alleged defendant used methamphetamine on October 29, 1997, and early the next morning encountered a Los Angeles County Sheriff's Deputy. Defendant was riding a bicycle, and as he passed the Deputy, he uttered an epithet, holding up his middle finger. The Deputy got in his patrol car and followed Defendant, eventually driving in front of the bicycle with his lights flashing. Defendant fell off his bike, but then pulled a .45 caliber Colt semiautomatic pistol from his waistband and fired at the Deputy, striking his right hand. As the Deputy attempted to draw his weapon, the Defendant came around the vehicle and shot the Deputy three more times. One of the bullets pierced the Deputy's chest, entering below the throat and above the bullet proof vest he was wearing. He lost consciousness within 10 seconds and died within a minute.

The Defendant was apprehended that day and eventually came to trial. Over Defendant's objection, Dr. Carley Ward (an expert in biomechanics) and her son Parris Ward (who creates computer graphics) described and then showed the jury a four-minute computer animation. Using the animation to illustrate her testimony, Dr. Ward offered opinions as to how the shooting occurred. She concluded the Defendant fired the first shot, hitting the Deputy's hand, then came around the vehicle and shot him in the leg, then the chest, and finally into his back as he fell to or lay on the ground. The animation, and the testimony of Dr. Ward, was provided by the prosecution during the penalty phase of the trial.

Parris Ward described the variety of sources relied upon to create the

animation. Mr. Ward told the jury [the animation was an illustrative tool](#), not a recreation of what must have happened. The trial court gave the jury a [cautionary instruction](#) that the animation was not a film of what actually occurred or an exact re-creation. “It is only an aid to giving you a view as to the prosecution version of the events based upon particular viewpoints and based upon interpretation of the evidence.” Defendant appealed his conviction, arguing the trial court abused its discretion in admitting the animation. He claimed it reflected speculation about key aspects of the shooting, gave the prosecution’s case an unwarranted aura of scientific certainty, and was cumulative of other evidence.

The California Supreme Court described the animation as providing a series of mostly still images. The images give the impression of three dimensional space, and the viewer’s perspective moves within the images, allowing the viewer to see from different angles. Facial features are generic and expressionless. The various perspectives demonstrate the trajectory of the various bullets fired at the Deputy. Color photos were included to illustrate bullet entry and exit wounds. Each of seven discharges of the weapon are illustrated, showing the path of the bullet and the resulting wound. Finally, the location of the shell casings is shown by small circles marking where they were found at the scene.

Courts draw a distinction between computer animations and computer simulations. [Animation is merely used to illustrate an expert’s testimony while simulations contain scientific or physical principles requiring validation.](#) [Animations do not draw conclusions; they attempt to recreate a scene or process, thus they are treated like demonstrative aids.](#) Computer simulations are created by entering data into computer models which analyze the data and reach a conclusion. ([Harris v State](#) (Okla.Crim.App. 2000) 13 P.3d 489) In other words, a computer animation is demonstrative evidence offered to help a jury understand expert testimony or other substantive evidence. ([People v Hood](#) (1997) 53 Cal.App.4<sup>th</sup> 965); a computer simulation, by contrast, is itself substantive evidence. (Commonwealth v Serge (Pa. 2006) 896 A.2d 1170)

Courts have compared computer animations to classic forms of demonstrative evidence such as charts or diagrams that illustrate expert

testimony. A computer animation is admissible if “it is a fair and accurate representation of the evidence to which it relates.” (*Dunkle v State* (Okla.Ct.Crim.App. 2006) 139 P.3d 228) A computer simulation, by contrast, is admissible only after a preliminary showing that any “new scientific technique” used to develop the simulation has gained “general acceptance ... in the relevant scientific community.” (*People v Kelly* (1976) 17 Cal.3d 24) In this case, the parties agree that the evidence was a computer animation, not a simulation, and therefore it was admissible if it was “a fair and accurate representation of the evidence. (*Dunkle*, 139 P.3d at p. 247)

Justice Kennard, writing for the entire court, explained that the animation was presented by the prosecution on the issue of the Defendant’s premeditation and deliberation. It illustrated a series of shots at close range, including continuing shooting while the Deputy was lying on the ground, suggesting premeditation and deliberation. Defendant contends the trial court abused its discretion by admitting the animation because it speculates about the locations from which the shots were fired and the sequence in which they were fired. Justice Kennard noted the computer animation is not substantive evidence used to prove facts; rather, it is demonstrative evidence used to help a jury to understand substantive evidence. **The question is not whether the animation represents the underlying events with indisputable accuracy, but whether it accurately represents the expert’s opinion as to those events.**

Defendant argues the location of a shell casing may not be the location the shot was fired, and the animation is speculative. As the Court explained, however, the animation does represent the expert’s opinion with regard to how the murder occurred, and that is all it is purported to do. The trial court made it clear to the jury that the animation was not a film of what actually occurred or an exact recreation. It is only an aid to give the prosecution’s version of the events based on an interpretation of the evidence. The expert opinions reflected in the animation were based on substantive evidence found at the scene. A firearms expert testified that the semiautomatic pistol ejects a shell casing each time it is fired. She acknowledged a shell casing can bounce but said it can be expected that the casing would be found on the ground near where a shooter was standing when the weapon was fired. Dr. Ward and her son testified the animation shows the shooter firing from three general areas where casings were found.

Defendant also asserts the depiction of where the shooter stood is speculative because officers or paramedics may have kicked or otherwise inadvertently moved shell casings. Even if that is so, the Court noted that possibility does not affect the animation's admissibility for the limited purpose of illustrating the opinion of the prosecution's experts about what the physical evidence showed. Although framed as a challenge to admissibility, defendant's real issue is with the conclusions drawn by Dr. Ward and her son from the evidence, not with the accuracy of the animation in depicting those conclusions. The argument fails because the animation does accurately depict the expert conclusions.

Defendant claims the animation gave the prosecution's case an unjustified "air of technical and scientific certainty." (*Dunkle*, 139 P.3d at p. 250) Defendant relies on out of state decisions cautioning that juries find visual evidence uniquely persuasive. Defendant does not take issue with the content of the animation, but with its form as a visual reenactment. That form was likely to beguile jurors into uncritically accepting the version of events depicted in the animation. He argues Evidence code section 352 should exclude the animation because the probability that its admission would create a substantial danger of misleading the jury substantially outweighs its probative value. (*People v Hood* (1997) 53 Cal.App.4<sup>th</sup> 965)

Here, the Justices noted the prosecutor and its experts made clear to the jury that the animation did not precisely recreate the shooting, but instead is an illustrative tool for explaining concepts. In closing argument the prosecutor admitted: "We do not know the exact position ..." of the shooter. The Court thus concludes that jurors understood the animation's limited role. There is no indication the trial court abused its discretion in ruling that the probative value of the evidence was not substantially outweighed by a risk of undue prejudice to defendant. The trial court properly instructed the jury that the animation was not an exact recreation and only showed the prosecution's version of the events.

Because the animation was not offered as substantive evidence, but as a tool to aid the jury in understanding the substantive evidence, it was merely demonstrative evidence. As such, it was appropriate for the animation to correspond to the other evidence offered by the prosecution. It was not

cumulative evidence. (*People v Williams* (1997) 16 Cal.4<sup>th</sup> 635)

Finally, Defendant claims the animation's purely speculative parts unfairly bolstered the prosecution's argument that he acted with premeditation and deliberation, thereby making him guilty of first degree murder. The Justices disagreed. The figures in the animation had expressionless facial features, giving no hint of specific thoughts or emotions. The prosecutor did not refer to the animation as proof of Defendant's mental state. The prosecutor did argue that evidence the third shot was fired from six feet away established the Defendant was looking at the helpless Deputy when he fired the shot that killed him. To support the argument, however, the prosecutor relied on Dr. Ward's expert testimony, not on the animation. Thus no prejudice could have resulted in admitting the animation because it was not relied upon by the prosecution as contended.

The judgment is affirmed.

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