

"MATHEMATICAL FORMULA ARGUMENT" REJECTED AS
MEASURE OF DAMAGES FOR PAIN AND SUFFERING
IN PERSONAL INJURY CASE

Hall v. Booth

178 N.E.2d 619 (Ohio App. 1961)

Plaintiff brought an action to recover for injuries sustained in an automobile collision. At the trial, counsel for plaintiff urged that plaintiff's pain and suffering was worth \$.08 per minute, or \$100 per day. The court of appeals acknowledged the case to be one of first impression in Ohio, but rejected the use of the mathematical formula argument. However, the court held that the judgment of \$18,000 was not excessive and affirmed for plaintiff.¹

"Physical pain and mental suffering are bracketed together as elements of damage in personal injury cases."² When accompanying bodily injury, both past and future damages for pain and suffering are recoverable.³ In ascertaining the dollar amount of these damages, the jury may consider plaintiff's health before and after injury,⁴ the nature of the injuries,⁵ and the extent and duration of the suffering.⁶ All courts realize that pain and suffering cannot be accurately measured in dollars.⁷ The majority of courts hold that the jury should determine in a lump sum damages that are reasonable and fair in light of the evidence presented.⁸ However, a minority of courts have attempted to refine the method of computing damages for pain and suffering by allowing plaintiff's attorney to use a mathematical formula argument.⁹

The mathematical formula, rather than computing the amount of damages for the duration of suffering in a lump sum, reduces the period of pain and suffering into smaller time units, *i.e.*, days, hours or even minutes.¹⁰ This figure is then multiplied by the number of like time units in plaintiff's entire period of pain and suffering to determine his total award. Courts that accept the mathematical formula generally do not allow the formula to be embodied in an instruction.¹¹ Counsel may advocate the use of the

¹ Hall v. Booth, 178 N.E.2d 619 (Ohio Ct. App. 1961).

² McCormick, Damages § 88, at 315 (1935).

³ *Ibid.*

⁴ Kirchner v. Atchison, T. & S.F. Ry. Co., 32 Cal. App.2d 176, 195 P.2d 427 (1948).

⁵ Van Gordon v. United States, 91 F. Supp. 834 (1950); Oklahoma Ry. Co. v. Strong, 204 Okla. 42, 226 P.2d 950 (1951).

⁶ Van Gordon v. United States, *supra* note 5.

⁷ See Annot., 60 A.L.R.2d 1348 (1958).

⁸ McCormick, *op. cit. supra* note 2, at 318.

⁹ *Supra* note 7, at 1350.

¹⁰ See, *e.g.*, Louisville & N.R. Co. v. Mettingly, 339 S.W.2d 155 (Ky. App. 1960).

¹¹ See, *e.g.*, Arnold v. Ellis, 97 So.2d 744 (Miss. 1957); Flaherty v. Minneapolis & St. Louis Ry. Co., 251 Minn. 345, 87 N.W.2d 633 (1958); Boutang v. Twin City Motor Bus Co., 248 Minn. 240, 80 N.W.2d 30 (1956); Jones v. Hogan, 56 Wash. 2d 23,

formula in a final argument as a matter of right in some jurisdictions,¹² but only at the discretion of the trial court in others.¹³ The mathematical formula can be explained by charts, diagrams, and blackboard illustrations.¹⁴ Proponents of the mathematical formula maintain that the rule provides an accurate computation of damages, as compared with the lump sum method, because the jury is presented with a definite standard of measurement.¹⁵ This contention is without merit. If the period of pain and suffering cannot be accurately measured in dollars when considered as a whole, then the measurement becomes no more precise by merely reducing the size of the time unit used as the basis for measurement.¹⁶ Therefore, the mathematical formula is not a definite standard, but rather an arbitrary "guess" by counsel.¹⁷ The principal contention of the proponents of the mathematical formula argument is that counsel should have a "liberal freedom of speech and a wide range of discussion" in argument.¹⁸ However, proper argument cannot go beyond the record and must be based on the evidence.¹⁹ Evidence of the nature, extent, and duration of pain and suffering is not evidence of this pain and suffering in dollars and cents.²⁰ An estimate by a witness of the monetary value of plaintiff's pain and suffering is not admissible as evidence because there is no witness competent to translate something so personal and variable into terms of dollars and cents.²¹ Therefore, any

351 P.2d 153 (1960). The foregoing decisions imply that it would be reversible error for the mathematical formula to be embodied in an instruction because the formula is not based on the evidence and would tend to mislead the jury.

¹² *Wuth v. United States*, 161 F. Supp. 661 (1958); *Continental Bus System, Inc. v. Toombs*, 325 S.W.2d 153 (Tex. Civ. App. 1959); *Four-County Electric Power Ass'n v. Clardy*, 221 Miss. 403, 73 So.2d 144 (1954).

¹³ *Johnson v. Brown*, 75 Nev. 437, 345 P.2d 754 (1959); *Olsen v. Preferred Risk Mut. Ins. Co.*, 11 Utah 2d 23, 354 P.2d 575 (1960); *Ratner v. Arlington*, 111 So.2d 82 (Fla. App. 1959).

¹⁴ *Jones v. Hogan*, *supra* note 11, at 31, 351 P.2d at 158; *Louisiana & Ark. Ry. Co. v. Mullens*, 326 S.W.2d 263 (Tex. Civ. App. 1959); *Ratner v. Arlington*, *supra* note 13, at 86.

¹⁵ *Continental Bus System, Inc. v. Toombs*, *supra* note 12; *Texas & N.O.R. Co. v. Flowers*, 336 S.W.2d 907 (Tex. Civ. App. 1960).

¹⁶ *Botta v. Brunner*, 26 N.J. 82, 138 A.2d 713, 60 A.L.R.2d 1331 (1958); *Henne v. Balick*, 51 Del. 369, 146 A.2d 394 (1958). The jury would probably find the mathematical formula easier to apply than the lump sum method of computation. However, the ease of computation should not be confused with the accuracy of the measurement. Some of the practical objections to the use of the formula would be absent if the base amount used in the computation were ascertained by the jury without prior suggestion by counsel.

¹⁷ *Quinn v. Philadelphia Rapid Transit Co.*, 224 Pa. 162, 73 A. 319 (1909); *Certified T.V. and Appliance Co. v. Harrington*, 201 Va. 109, 109 S.E.2d 126 (1959).

¹⁸ See note, 28 U. Cinc. L. Rev. 138 (1959); note, 12 Rutgers L. Rev. 522 (1958); 39 Ohio Jur. "Trial" § 115, at 695 (1935).

¹⁹ 39 Ohio Jur., *supra* note 18.

²⁰ *Arnold v. Ellis*, *supra* note 11; *Botta v. Brunner*, *supra* note 16, at 95, 138 A.2d at 720.

²¹ Personal Injury Commentator, at 86 (1960).

estimate by counsel as to the value of plaintiff's pain and suffering is not based on the evidence and should be considered improper argument. Of course the award for pain and suffering, even when it is derived by the lump sum method of computation, is not based on the evidence. However, this fact is inevitable if compensation for pain and suffering is to remain an element of a personal injury judgment under the present jury system. However, the mathematical formula argument serves only to compound this evil by subjecting the jury to counsel's estimates in addition to making its own approximation.²²

The effect of the mathematical formula argument should not be ignored. Opponents of the formula's use argue that it is an emotional appeal to the jury that cannot be erased by an instruction stating that the argument is not to be considered as evidence.²³ The purpose of the formula is to establish a fixed standard that will displace the jury's concept of what is a fair and reasonable amount as shown by the evidence and in light of common knowledge.²⁴ This is often accomplished by drawing an analogy between the hourly rate paid a laborer or the amount counsel estimates would be sufficient to induce someone to voluntarily undergo plaintiff's pain, and the amount of compensation plaintiff requests per hour for his pain and suffering.²⁵ Defendant is further prejudiced by the use of the formula if the jury is asked to use the worst hour of the worst day as a yardstick for measurement while the degree of plaintiff's suffering actually varies from day to day.²⁶ Thus, the subjective nature of pain and suffering would be ignored by displacing the jury's idea of reasonable compensation with an artificial process of multiplication and addition.²⁷ Although this low dollar amount per day or per hour does not seem unreasonable to the jury, defendant may be faced with an excessive and unfair judgment when this figure is multiplied over the entire period of pain and suffering.²⁸

²² *Botta v. Brunner*, *supra* note 16, at 100, 138 A.2d at 723; *Certified T.V. and Appliance Co. v. Harrington*, *supra* note 17, at 115, 109 S.E.2d at 131; *Faught v. Washam*, 339 S.W.2d 588 (Mo. Sup. Ct. 1959). Counsel will estimate the amount that he thinks should be awarded whether or not the mathematical formula is used.

²³ *Faught v. Washam*, *supra* note 22, at 604. This observation is subject to the valid criticism that it is only speculation by the opponents of the mathematical formula argument.

²⁴ *Affett v. Milwaukee & Suburban Transp. Corp.*, 11 Wis.2d 604, 106 N.W.2d 274 (1960). The fact that defense counsel can suggest a lower figure, offer evidence of mitigating circumstances, *i.e.*, pain reducing drugs, or that the jury may disregard the formula entirely should not be ignored.

²⁵ *Goodhart v. Pennsylvania R. Co.*, 177 Pa. 1, 35 A. 191 (1896).

²⁶ *Hallada v. Great Northern Ry.*, 244 Minn. 81, 69 N.W.2d 673, *cert. denied*, 350 U.S. 874 (1955). However, remittitur is available to reduce an excessive judgment when the mathematical formula is permitted.

²⁷ *Ahlstrom v. Minneapolis, St. P. & S. Ste. M.R. Co.*, 244 Minn. 1, 68 N.W.2d 873 (1955).

²⁸ *Affett v. Milwaukee & Suburban Transp. Corp.*, *supra* note 24, at 610, 106 N.W.2d at 278. However, note that in the principal case, the court did not feel this amount awarded was excessive.

The computation of damages for pain and suffering can at best be a reasonable estimate by the jury. The judgment is necessarily speculative whether it is derived by a mathematical formula or the lump sum method of computation because no monetary award for pain and suffering is based on the evidence. The mathematical formula, by displaying an appearance of exactness, tends to clothe speculation in the wraps of certainty. The courts should not indulge in this fiction. The jury will be more likely to determine an award for pain and suffering which is fair to both plaintiff and defendant if it treats plaintiff's life as a whole and applies its collective reasoning to the evidence presented, unhindered by the presence of an artificial standard such as a mathematical formula.²⁹ Computation under the lump sum approach might be more desirable if the trial judge were given the authority to set an upper and lower monetary limitation for recovery within which the jury could use its discretion to estimate the amount of plaintiff's recovery. This innovation would reduce the difficulty of the jury's computation and should keep the award for pain and suffering within reasonable bounds.³⁰

²⁹ *Botta v. Brunner*, *supra* note 16; *Hallada v. Great Northern Ry.*, *supra* note 26, at 98, 69 N.W.2d, at 687.

³⁰ The device should practically eliminate the occasional need for remittitur and additur in personal injury cases.