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Giannone v. Weinberg

Giannone et al. v. Weinberg

[1989] O.J. No. 654

68 O.R. (2d) 767

33 O.A.C. 11

15 A.C.W.S. (3d) 174

Action No. 325/86

Ontario
Court of Appeal

Morden, Griffiths and Catzman JJ.A

May 7, 1989.

Counsel:

C.L. Campbell, Q.C., and K. Chown, for appellant.

Earl A. Cherniak, Q.C., Robert Roth and Peter W. Kryworuk, for respondents.

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1 BY THE COURT:-- The appellant (defendant at trial) appeals against certain parts of an award of damages to the respondents (plaintiffs at trial).

2 The infant respondent, Antonella Giannone, was born on June 18, 1975. On August 9, 1981, she fell and suffered a compound fracture of her right arm. The appellant physician negligently fitted her arm with a cast that was too tight and as a result she developed gangrene in the arm. On August 12, 1981, she was admitted to the Hospital for Sick Children, where her dominant right arm was amputated at the elbow. At the trial, the appellant admitted liability, leaving only the

respondents' damages in dispute.

3 The trial judge found [37 C.C.L.T. 52 at pp. 53-4] that:

> Antonella continues to have pain in the stump of her arm and phantom pain. She has these pains daily. They are likely to continue and will probably become worse with time. There is a serious danger that she will develop skin problems, neck pain and psychological problems with depression. She has had a lot of mental suffering and will probably experience emotional crisis during adolescence. Because of that and for other reasons, it is improbable that Antonella will go on to post-secondary education. She will probably not marry.

4 The kind of prosthetic device that should be fitted to Antonella's right arm was a major issue at trial. The respondents contended for the more expensive "Utah Arm" manufactured in the United States, whereas the appellant argued that the much less expensive "Variety Village Arm" fitted at the Hugh McMillan Centre in Toronto was appropriate. The trial judge found on the evidence that Antonella was entitled to have the Utah Arm and that she should receive the present value of the moneys necessary to provide her with the Utah Arm and its modifications over her lifetime.

5 The trial judge also found that Antonella had lost 75% of her earning capacity. Based on the premise that she had a probable earning capacity of $20,000 per year, the trial judge awarded 75% of the present value of that sum calculated over her working lifetime and, in addition, awarded the present value of her lost Canada Pension Plan benefits.

6 The trial judge assessed the damages of the respondents as follows:

> Antonella Giannone Non-pecuniary general damages $ 125,000.00 Future loss of income and Canada Pension Plan benefits 342,532.00 Future prosthetic costs of the Utah Arm 953,867.00 Future housekeeping costs 161,274.00 Management expenses 75,000.00 Gross-up to cover income taxes on sum awarded 1,615,000.00

Mario Giannone Special damages . 26,056.36

TOTAL AWARD (Exclusive of Prejudgment Interest) .$3,298,729.36

7 On this appeal, counsel for the appellant submitted that the trial judge had erred with respect to certain parts of the total award. The non-pecuniary general damages of $125,000 were not challenged. There were some submissions against the award on which we did not call upon counsel for the respondents to respond. We propose to deal with those submissions first.

1. The award of costs of the Utah Arm based on the present need

8 The trial judge awarded the costs of the Utah Arm on the basis of the costs of this prosthesis at the time of the trial, on the premise that Antonella should be immediately fitted with this prosthesis. Counsel for the appellant submits that the trial judge erred in this respect in that all of the experts who testified at trial agreed that the Utah Arm, if presently fitted, would be two inches longer than the natural arm and that this length problem could only be alleviated by surgically shortening the stump. The surgery, it was agreed, should not be carried out until Antonella had ceased growing, probably at age 16. Counsel for the appellant submits that the award should have been based on the present value of the costs likely to be incurred at age 16.

9 Although the trial judge made no reference to this issue in his reasons, he was entitled to award the present costs of the Utah Arm on the evidence of Mr. William Sauter, prosthetist, called on behalf of the respondents, that in the interest of having the Utah Arm, regarded by him as the best prosthesis available, Antonella would probably be willing to overlook the length discrepancy as it created no functional handicap. The trial judge was entitled to accept the opinion of Mr. Sauter on this issue and we are not prepared to interfere with his finding in that respect.

2. The award for future loss of income

10 Counsel for the appellant also attacked the award for future loss of income and Canada Pension Plan benefits of $342,532 as unreasonably high. As we have said, the trial judge found that Antonella had, by reason of her loss, suffered a loss of 75% of her earning capacity and that she probably would have earned $20,000 per year if she had not suffered the physical loss. In his reasons, he said [at p. 54]:

> The present value of $20,000 per annum for Antonella's working life expectancy is $448,400 and the present value of her lost Canada Pension Plan benefits is $8,309.08. I assess her damages for the loss of her earning capacity at seventy-five percent of the sum of those figures, $342,532.

11 In our view, there was evidence which reasonably supports the findings of the trial judge with respect to the loss of earnings claim and we are therefore not prepared to interfere.

3. Management expenses

12 The trial judge awarded a fee of $75,000 for the management of the amounts awarded to cover future loss of income and future expenses. In arriving at the amount of $75,000 he accepted evidence given on behalf of the respondents that a reasonable fee to cover the management of a fund invested in long-term government bonds would be one-half of 1% of the balance of the fund under administration per annum. This was essentially a fee for maintaining custody of and reporting on the portfolio.

13 The appellant does not submit that this is not an appropriate case for compensation for management services. His basic submission is that there was evidence that with more active management, although the fees would be larger than those based on one-half of 1% per annum, the increase in the yield would cover the cost of the advice.

14 There is no evidence indicating that the one-half of 1% per annum fee is unreasonable and, as we shall point out later, we do not feel that we can properly interfere with the trial judge's conclusion respecting the most appropriate investment vehicles for Antonella. We therefore are of the view that we should not interfere with the award of a management fee of the present value of one-half of 1% per annum of the fund. On the basis of the variation in the amounts for housekeeping services and future prosthetic costs, dealt with later in these reasons, this amount would now be $61,000.

15 We saw fit to call upon the respondents and reserved judgment on the following submissions against the award of damages:

1. The trial judge erred in awarding $953,867 for future prosthetic costs by including therein:

   (a) the costs of future improvements to the Utah Arm, when the likelihood of such improvements being made was purely speculative;

   (b) the costs of replacing the Utah Arm in the United States in U.S. funds when the evidence points to the likelihood of such replacements being made in Canada in Canadian funds;

   (c) the costs of the maintenance of the Utah Arm and the improvements thereto at 20% of their costs in U.S. funds, in the absence of evidence to support this finding; and

   (d) the costs of a back-up Utah Arm, as a one-time purchase, at $27,500 (U.S.) when the evidence indicated that the less expensive Variety Village Arm would have been appropriate as a back-up.

2. The trial judge erred in awarding housekeeping costs to Antonella on the basis she would require 15 hrs. housekeeping help per week during her lifetime from age 18 on.
3. The trial judge erred in using the 21/2% discount rate prescribed by rule 53.09 to calculate the present value of the respondent's future pecuniary loss rather than

accepting the evidence of an economist, Dr. James Pesando, that an interest rate of 3% to 31/2% was more appropriate to be used as a discount rate.

4. The trial judge erred in calculating the "gross-up" to provide for the payment of income taxes on the income from the investment of the award for future costs using an 81/2% long-term rate of inflation.
5. The trial judge erred in basing his award of the gross-up upon a fund comprising long-term government bonds and in not giving effect to evidence relating to the tax benefits of a mixed portfolio and of various forms of tax avoidance schemes.
1. The award for future prosthetic costs

16 As we have said, the trial judge accepted the evidence of the experts who testified on behalf of the respondents that it was appropriate that Antonella be fitted with the myoelectric prosthesis known as the Utah Arm. This finding was not attacked on appeal.

17 The trial judge's award of $953,867 respecting the future costs of the Utah Arm included the following:

(i) Utah Arm, to be replaced every five years, at an individual cost of $32,000.00 (U.S.)

(ii) Costs of improvements to the Utah Arm:

(a) powered wrist rotator, available in seven and one-half years, to be replaced every five years $3,500.00 (U.S.)

(b) Lighter hand, available in five years $4,000.00 (U.S.)

(c) Powered humeral rotator, available in seven and one-half years, to be replaced every five years $6,500.00 (U.S.)

(d) Microprocessor to be available in seven and one-half years $15,000.00 (U.S.)

(iii) Back-up arm, one-time purchase $27,500.00 (U.S.)

18 The trial judge accepted the evidence of a Mr. James Andrew, called on behalf of the respondents, that the average annual maintenance for all the prosthetic devices would be 20% of

their cost. The trial judge included this 20% factor in the total damage award of $690,464 (U.S.) ($953,867 Canadian) to be invested to produce the fund necessary to purchase, fit and maintain the devices.

(a) The costs of future improvements

19 James Andrew was the chief prosthetist for Motion Control, a company in Salt Lake City that produced the Utah Arm. He testified that future improvements to the Utah Arm are now being planned and that these developments include a smaller, lightweight, powered wrist rotator, a lighter weight hand, an electrically powered humeral rotator, and a microprocessor system that would have the capacity to provide for multiple degrees of freedom and several planes of motion simultaneously. He testified that, depending on the availability of research funding which in the past "has been a little bit hard to get", he thought that some of these improvements would be developed within five years, others in ten but generally between five and ten years. As to the cost of these improvements he estimated that the powered wrist rotator would cost between $2,500 and $4,500 (U.S.), that the lighter hand would be in the $4,000 (U.S.) range although he conceded that "it's really hard to tell since it's not even invented ... yet". The humeral rotator, Andrew thought, would be similar to the wrist rotator and would cost between $5,000 and $8,000 (U.S.). Finally, with respect to the microprocessor, he testified "that would be a real guess" and placed its cost in the $10,000 to $20,000 (U.S.) range.

20 In awarding damages to provide the present value of these future improvements, the trial judge chose five years as the probable date on which the lighter hand would be available and seven and one-half years for each other improvement. With respect to the costs, the trial judge took the average of the costs of each improvement as estimated by Mr. Andrew.

21 Counsel for the appellant submits that the evidence relating to the proposed improvements and their costs was so speculative that the trial judge should have given effect to a contingency deduction cost of at least 25%. Counsel for the appellant does not suggest that no award should be made for these costs but rather that the award should be reduced to allow for the negative or adverse contingencies.

22 It is not necessary for the plaintiff to prove on a balance of probabilities that a future pecuniary loss will occur but only that there is a reasonable chance of such loss occurring. The court must then assess the value of that chance: see Schrump v. Koot (1977), 18 O.R. (2d) 337, 82 D.L.R. (3d) 553, 4 C.C.L.T. 74 (C.A.). It must be remembered, however, that in determining the future pecuniary loss, which at best must be an estimate, the court should take into consideration the evidence of both positive and negative contingencies that may affect that loss. Here, in our respectful opinion, the trial judge failed to consider and allow for some of the negative contingencies such as the possibility that the improvements may not be invented due to lack of research funds or for other reasons or the possibility that Antonella might abandon the use of the Utah Arm. The trial judge simply accepted the average cost of these improvements and made no

allowance for the adverse contingencies spelled out in the evidence. In our view, these adverse contingencies would warrant a reduction of the over-all cost by 20% and the award will therefore be adjusted accordingly.

(b) The costs of replacing the Utah Arm in the United States

23 The trial judge awarded the present value of the sum of $32,000 (U.S.) expended on the initial fitting of the Utah Arm and a replacement arm every five years. Counsel for the appellant does not challenge the cost of the initial fitting of the arm in the United States in U.S. funds, but submits that the trial judge erred in failing to consider the probability that future replacements could be carried out in Canada at Canadian costs.

24 Mr. Andrew testified that the cost of fitting a prosthesis for Antonella at his facility in Utah, including follow-up and training, would be approximately $32,000 (U.S.). With respect to replacement costs, he estimated a period of between three to seven years with a five-year average replacement time. Mr. Andrew was asked the following questions and gave the following answers:

> Question: And would it not be reasonable in your mind for someone in Toronto who was going to be fitted with the "Utah Elbow" to have it fitted in Toronto?
>
> Answer: We found that in most cases it can be a better way to go because you have local follow-up to maintain the patient.
>
> Question: Assuming you have the capable limb maker in the region?

25 Answer: That's true.

26 The evidence indicated that some of the best prosthetists operate in Toronto and that Antonella could be fitted with a Utah Arm either at the Hugh McMillan Centre or the Sunnybrook Centre at Toronto.

27 Mr. William Sauter, Antonella's prosthetist, is a specialist in child arm amputees and the originator and coordinator of the myoelectric prosthesis programme at the Hugh McMillan Centre. He testified that he thought that the initial fitting of the arm should be done in Salt Lake City where the expertise lies but that thereafter "we can be of help in servicing the device in Toronto". He expected the average cost to be $28,000 to $40,000 in Canadian funds for the replacement and fitting of the Utah Arm.

28 In our view the only evidence directed to the issue suggests that Antonella would likely have the replacement arm fitted and serviced in Canada, probably at Toronto, at an average cost of $28,000 to $40,000 Canadian. The trial judge was in error in ignoring this evidence. The judgment

should therefore be varied to provide for replacement costs every five years at an average of $34,000 Canadian.

(c) The costs of maintenance

29 As we have said, Mr. Andrew testified that the repair costs to the Utah Arm have been approximately 20% of the cost of the arm per year. While the evidence is sketchy on this point, it would appear that the added improvements will also require annual maintenance costs of approximately 20% of their initial value. On the basis that the initial value of the costs of the future improvements is reduced by 20%, as indicated above, we are not prepared to interfere with the trial judge's finding on this issue.

(d) The costs of a back-up Utah Arm

30 With respect to the one-time purchase of a back-up arm, the trial judge awarded $27,500 (U.S.), apparently accepting the evidence of Mr. Andrew that the cost of a complete back-up unit would be approximately $25,000 to $30,000 (U.S.). This arm is provided as a back-up when the regular arm has been removed for repairs or maintenance and, on occasion, this may be for extended periods of time.

31 Counsel for the appellant submits that the trial judge erred in awarding the costs of the back-up arm on the basis of employment of the Utah Arm when the Variety Village Arm would have provided a suitable back-up at a cost of only $8,000 Canadian. There is evidence that it is not unusual for patients to have as their back-up arm another Utah Arm and we are not prepared to interfere with the trial judge's finding in this respect.

(e) Conclusion respecting future prosthetic costs

32 After giving effect to the variations mentioned in this part of our reasons the total award for future prosthetic costs is $773,604.

2. The award for future housekeeping costs

33 It was common ground that there were certain household tasks which Antonella would be unable to perform and that other tasks would take her longer to do than they would a person with two arms. Dr. Fisher, a specialist in rehabilitative medicine, testified for the respondents that normally a person might spend three hours a day on household and personal chores and that it would take Antonella two or three times as long to perform these activities. Dr. Hunter, who had extensive experience with upper limb amputees, testified for the appellant that in his experience adult amputees were generally able to look after their own personal needs and that none of his patients required daily homemaker care or assistance. Mr. Sauter testified for the respondents that in his experience individuals using myoelectric arms were for the most part capable of looking after their own household duties and responsibilities although somewhat less efficiently than the normal

person with two arms. Mr. Sauter agreed with the suggestion that Antonella would need someone to come in once a week to do the heavy cleaning.

34 The trial judge found that Antonella will require 15 hrs. of housekeeping help per week at a current cost of $7.98 per hour and accordingly he awarded her approximately $120 per week for her lifetime to take effect after she reached the age of 18, when she would probably leave home.

35 The trial judge awarded Antonella loss of future earnings on the basis that she will be largely unemployable and, therefore, at home. In our view, to award the costs of housekeeping services on the basis of 15 hrs. per week because Antonella will take longer to do these chores was not justified on the evidence. The correct approach to the evidence, in our view, is to award the costs of having a cleaning woman come in once a week to do the heavy work Antonella cannot do after age 18, at a cost of $50 per week. The award for housekeeping services as varied is $67,366.00.

3. The discount rate

36 Rule 53.09 of the Rules of Civil Procedure provides:

> 53.09 The discount rate to be used in determining the amount of an award in respect of future pecuniary damages, to the extent that it reflects the difference between estimated investment and price inflation rates, is 21/2 per cent per year.

The appellant submits that in calculating the present value of Antonella's future pecuniary damages the trial judge erred in using the discount rate of 21/2% provided for in this rule rather than accepting the evidence of Dr. James Pesando, an economist who gave evidence on behalf of the appellant. Dr. Pesando testified that the appropriate rate was 3% to 31/2%.

37 At no place in his reasons did the trial judge deal with this issue, as such, or indicate what discount rate he was using to calculate the present value of the future pecuniary losses. It is, however, clear that the trial judge's present value amounts are based upon the respondents' expert evidence and that in this evidence the discount rate of 21/2% was used. (As we shall indicate in the next part of these reasons, the trial judge did refer to Dr. Pesando's evidence, and also to rule 53.09, but this was in connection with his determination of the long-term rate of future inflation for use in his calculation of the gross-up to cover future income taxes.)

38 We think that the short answer to the appellant's contention is that, in so far as future investment and price inflation rates are concerned as factors, the discount rate must be 21/ 2%. When these are the only factors which are being taken into account rule 53.09 does not allow the use of a different discount rate.

39 Rule 53.09 has two basic purposes. One of them is to avoid the expense incurred by parties in calling economic and actuarial evidence relating to future investment and price inflation rates in every case where future pecuniary damages are in question in order to establish the discount rate to

be used. The other purpose is to avoid the general injustice of similar cases decided at the same time having different results because of the use of different discount rates in the calculation of the award.

40 In so far as other factors may bear on the calculation (such as future wage increases over general price inflation, or the relevant individual's income from employment increasing at a faster rate than the general increase) and it is felt that they may reasonably be given effect to in the discount rate, then the 21/2% starting point may be adjusted. In Dziver v. Smith (1983), 41 O.R. (2d) 385 at p. 389, 146 D.L.R. (3d) 314 (C.A.), Weatherston J.A. said for this court:

> If no evidence is adduced by either side as to these additional factors [additional to future investment and price inflation rates], the court may safely apply Rule 267a [the predecessor of rule 53.09], but it should not deviate from the rule without evidence one way or the other.

(Emphasis added.) We interpret this statement as saying that the rule should not be departed from unless there is evidence one way or the other on the factors other than future investment and price inflation rates.

41 In McDermid v. The Queen in right of Ontario (1985), 53 O.R. (2d) 495, 5 C.P.C. (2d) 299 (H.C.J.), Rosenberg J. took a different view. At pp. 500-1 he said:

> In projecting the future, there is no such thing as certainty. We calculate awards based on life expectancies. However, individual plaintiffs will live for shorter or longer periods than the actuarial tables predict. These calculations leave the individual plaintiff at risk. Similarly, the use of any discount rate as projected will involve a risk by the plaintiff that the discount rate will actually be lower and a risk by the defendant that the discount rate will actually be higher. These risks are inherent in any such decision by the court. In fairness to the parties, we must use the best projection that can be made. On the evidence the best present projection that can be made of the discount rate for the next eight years is 11%, less 41/2% or 6.5%. If the projection were being made for the next four years, the average inflation rate would be reduced to 4.2% and the return available to 10.25%, so that the discount rate would be slightly above 6%. I have, accordingly, determined that it would be just to the plaintiff and defendant when dealing with a period of five years or less, to use 6% as a discount rate and where the period is five years or more but less than nine years, to use 61/2%. The question remains, however, whether I have discretion to depart from the 21/2% rate provided in the rule. Mr. Monteith argues that the rule was intended to avoid chaos, that if the rule is not strictly applied in every case, there will be economists testifying for both sides in every damage case relating to future sums of money. This is not so. If the discount rate used in this case were to be other than 21/2%, it would be only in the circumstances peculiar to this case, that is,

> where the future payments being considered are over a comparatively short period of time, when the discount rate can be predicted with reasonable accuracy and where the discount rate so predicted is dramatically different than the discount rate of 21/2% provided for in the rule.

Rule 2.03 of the Rules of Civil Procedure provides:

"COURT MAY DISPENSE WITH COMPLIANCE

> 2.03 The court may, only where and as necessary in the interest of justice, dispense with compliance with any rule at any time."

> While it is probable that the rule was intended to allow the court to excuse compliance by the parties with the procedural requirements of the rules under appropriate circumstances, the unambiguous wording of the rule allows the court the discretion to disregard a rule in the interest of justice. Accordingly, I will apply to the calculations to be made in this case the discount rates of 6% or 61/2% depending on the term being considered.

42 We were informed by counsel during the argument before us that in many cases the parties, in reliance upon this decision, have called economic and actuarial evidence respecting estimated future investment and price inflation rates to arrive at a discount rate different from 21/2%. Even where the future period is a long one, parties have submitted that, at least for the first part of the period, a rate other than 21/2% should be used.

43 This latter approach, however, was not followed by O'Leary J. in Crew v. Nicholson (Ont. H.C.J.), February 20, 1987 [now reported 1 M.V.R. (2d) 284]. He said [at p. 305]:

> In determining the amount of an award to compensate for future pecuniary damages I feel bound by rule 53.09 to use a discount rate of 21/2 percent. I decline, with respect, to follow the decision of Rosenberg J. in McDermid v. Ontario (1985), 53 O.R. (2d) 495, 5 C.P.C. (2d) 299 (Ont. H.C.). For the Court to adopt a discount rate other than 21/2 percent is to invite a return to the same kind of speculation that existed before r. 53.09 and its predecessor were introduced. The drafters of the Rule knew it would not always accurately reflect the real return on capital over certain periods. It will always be possible to show that for a period in the past, the 21/2 percent rate has not been accurate, and so to predict that it is unlikely to be accurate for some period in the future. That kind of speculation and uncertainty the Rule was designed to eliminate.

(Three of the defendants appealed from O'Leary J.'s judgment to this court but their appeal did not include a challenge to the decision respecting the appropriate discount rate. The appeal was

dismissed on March 6, 1989 [since reported 68 O.R. (2d) 232, 58 D.L.R. (4th) 111, 32 O.A.C. 39].)

44 We agree with these reasons and we note that the Ontario Law Reform Commission in its Report on Compensation for Personal Injuries and Death (1987) at p. 225 has also agreed with them. The Commission noted that:

> If applied, McDermid v. The Queen would seriously undermine the cost and efficiency advantages attendant upon prescribing a discount rate.

45 It is not necessary to consider, in any general way, the nature and scope of rule 2.03, to which resort was had in McDermid. We think that it is sufficient to say that it should not be used to frustrate the fundamental purpose of rule 53.09. In this regard, the "justice" consideration of rule 2.03, as indicated in Crew v. Nicholson, supra, must be taken to have been known to the drafters of rule 53.09, whose purpose was to provide for a generalized form of justice in all cases where future pecuniary damages are to be determined.

46 We conclude that the trial judge was correct in using a discount rate of 21/2%.

4. The gross-up for income taxes: the long-term rate of inflation

47 As indicated earlier in these reasons, the trial judge found the following present values with respect to future costs:

> Prosthetic devices $ 953,867 Housekeeping help 161,274 Management expenses 75,000
>
> TOTA L $1,190,141

48 The trial judge was required to "gross up" the amount of $1,190,141 to provide for the income taxes that would be paid on the income portion of payments from the fund so that the fund would accomplish its purpose and not be eroded by the income tax payments. He said with respect to the calculation [at pp. 54-55]:

> In order to calculate the amounts of money that will be required to be invested to produce the after tax money for prosthetic devices, housekeeping help and management expenses and be all gone at the end of Antonella's expected life, it is necessary to use a figure for future inflation.
>
> Dr. Pesando agreed that the market's forecast of future inflation is as good as any. Eleven percent was the yield from long-term Canada Bonds and from this

> should be deducted the long-term real rate of return on money. Dr. Pesando testified that in his opinion the real rate of interest for the next decade would be higher than the 21/2 percent mandated by r. 53.09. I am not persuaded that the chances of this being so are sufficient to depart from the 21/2 percent provided by the Rule.
>
> I find that the figure which should be used for future inflation is eight and one-half percent and, using that figure and the other figures found [totalling 1,190,141], it will require $1,615,000 to provide for the income taxes which the plaintiff Antonella Giannone will have to pay.

49 The appellant attacks the trial judge's decision to use 81/2% as the estimated rate of future inflation. The appellant submits that the appropriate rate to use for future inflation is 5% and that the trial judge's conclusion is based upon a misinterpretation of the evidence.

50 To deal with this point, it is necessary to examine the course of the trial and portions of the evidence.

51 During the course of the cross-examination of A.F. Cooper, an actuary called by the respondents, counsel for the appellant asked questions relating to Mr. Cooper's opinion with respect to long-term interest rates. Mr. Cooper replied that, since he was not an economist, he did not think that he could give expert evidence with respect to future inflation. The following then took place:

> HIS LORDSHIP: Mr. Sommers [counsel for the plaintiffs], will you be calling an economist?
>
> MR. SOMMERS: I wasn't proposing to, my lord. However, I will have some evidence as to the average and weighted average over the last various extended periods.
>
> HIS LORDSHIP: Will you be calling an economist, Mr. Doherty [counsel for the defendant]?
>
> MR. DOHERTY: Yes.
>
> HIS LORDSHIP: It is becoming increasingly the custom to do so, Mr. Sommers.

MR. DOHERTY: I will leave that then, sir. We have had our chat about future inflation and future interest rates.

HIS LORDSHIP: The reason I asked Mr. Sommers if he were going to call one is all of this could really be saved for the economist.

MR. SOMMERS: My lord, perhaps I could say something to your lordship.

I have served my friend with a report of an economist which actually proposes a long term inflation rate of 81/2 percent. I thought that 5 percent rate was an eminently more reasonable one based on the historical experience to date. If my friend is suggesting that the rate lower than 5 percent ought to be used, then I will undertake to call an economist.

HIS LORDSHIP: I am not asking for any understanding. I was only asking for your intention in view of the fact that I thought, in view, particularly in view of Mr. Cooper's protestations with respect to his expertise being an actuary rather than an economist, we can save some time if we are going to get to the economists. If my experience to date is any indication of what will happen in the future, the economists just take the two routes today, one is the rate of inflation that the market is forecasting and the other is to give you the history of what it has been in the past and you have the two routes and you can argue before me as to which one I should take on this particular occasion.

52 The next witness the respondents called was Howard Rosen, an accountant with experience in the assessment of damages for personal injury. An opinion letter which he had written dated October 7, 1985, was made an exhibit at the trial. In this letter, Mr. Rosen used a long-term inflation rate of 5% and a long-term interest rate of 7.625% in the calculation of the gross-up. In his evidence he said:

> You also asked me to comment on the long-term inflation rate. In our office we have calculated the long-term inflation rate using two methodologies. The first was by reference to a report prepared, I believe for the Supreme Court of Ontario with respect to new rule 53.09. Annexed to that study is a table of inflation rates for the past, I believe 40 years. We took a simple average of that table and came to a long-term inflation rate of approximately 4.6 percent. We have also on other assignments calculated a moving average, which is a statistical technique used to isolate unusual variances in any one year and the three year moving average for the past 40 years calculated to approximately 6.1 percent.

Q. Sorry, the -- the three year moving average for the past 40 years?

A. Forty years, yes. For the same period. So simple average was 4.6 and moving average was 6.1. Based on these two rates we felt that 5 percent was a reasonable number for the long- term inflation rate, and applying rule 53.09, the long- term interest rate is calculated at 7.625 percent and I believe Mr. Cooper explained previously why it is 7.625 and not simply 7.5. The mathematics of percentages dictates that you multiply the numbers and not simply add or subtract them. It is more accurate.

53 In the course of the case for the appellant, the appellant called Dr. Pesando to give evidence on various matters but not with respect to his opinion on long-term inflation rates. As indicated in the preceding part of these reasons, Dr. Pesando did give evidence on what he considered to be the appropriate discount rate for the determination of the present value of future costs. While he was being cross-examined on this subject the following took place:

HIS LORDSHIP: May I just interrupt at this point, to ask Doctor Pesando, at this point. In view of your comment about how smart marketers are, I am sure that you are aware that a number of the economists have testified and you may have to, that the best forecast of inflation is what the market is forecasting at the present time. And given in a nominal rate, the long term Canada Bonds are 11 percent and the current rate of inflation is approximately 4 percent, the market is forecasting inflation [sic -- real interest rates] of 7 percent.

THE WITNESS: I think in this case the market is, if I use your figures, if the market --

HIS LORDSHIP: Firstly, do you disagree with my figures?

THE WITNESS: No --

HIS LORDSHIP: You gave the 11 percent.

THE WITNESS: Four percent inflation is right. I think the difference is the phraseology. If you have 4 percent inflation and 11 percent nominal interest rates, then you have roughly 7 percent real interest rates.

HIS LORDSHIP: Or what is described by some economists, giving smartness

of the market, as the best forecast of the future rate of inflation.

THE WITNESS: Well, in order for -- the standard argument, one which I put before the courts in the mid '70s was that if you know what the real interest rate is, let's assume 21/2 percent, and if the market interest rate were 11, then we could step back and say, well the market is telling us that the long term inflation forecast is 11 percent minus 21/2, and I think if you know nothing other than the historical data, and you are persuaded that historical data are relevant for this point in time, so you are happy with the 21/2 interest rate, I would say that is a perfectly reasonable way to get inflation forecast.

HIS LORDSHIP: I made a mistake in there using the 4 percent and 11 percent. Of course I ought to have been using the 21/2 percent and the 11 percent, which would mean that at the present time, the market forecasting 81/2 percent of inflation.

THE WITNESS: Exactly.

HIS LORDSHIP: You are saying if you accept 21/2 percent as the probable future real rate, or the present --

THE WITNESS: The present real rate.

In other words, if we were convinced that that 21/2 percent real interest rate is exactly what investors were requiring today, then we could do exactly what the courts have been doing for the last seven or eight years, which is to say, fine, if we are convinced that 21/2 percent number is essentially where we are today, if we have a 11 percent nominal, then we get your number of 81/2. Having made the argument in the mid '70s, about why it is so important to understand the difference between real and nominal interest rate, I stood up on behalf of the lawyers for the plaintiff and argued 21/2 percent interest rate, and I thought the court was confusing nominal and real interest rates. Today in front of you in 1985, I have put one qualification and that is that I don't think 21/2 percent real rate that we see in the long run is the right rate to begin the exercise with today.

HIS LORDSHIP: If it were the correct rate, would you agree that the market is

forecasting 81/2 percent inflation?

THE WITNESS: Yes, I would.

HIS LORDSHIP: Would you also agree that that is as good a forecast of future inflation as can be made?

THE WITNESS: Again, conditional upon that first statement, yes. Yes, I would agree.

54 Part of this exchange had reference to the following portion of what Dr. Pesando said in his evidence-in-chief:

Q. In terms of interest rates on investments like long term Canada bonds, to what point into the future would you feel reasonable based on your expertise in giving us a prediction as to how those rates will run?

A. Referring to nominal interest rates in the market place?

Q. Yes, first. Thank you.

A. I don't have great confidence going very far into the future at all. I did some formal work at Harvard that was published about two years ago which at the bottom line conveyed the message that the best forecast of the future level of long term interest rates is in essence their level today, that there is very little evidence that economists can improve upon that have simple benchmarks.

Q. What is their level today?

A. At present, long term Government of Canada savings bonds that would be trading at par would be yielding 11 percent.

Q. This is nominal.

A. Yes, the interest rate that you see quoted in the Globe & Mail.

55 It is upon the evidence that Dr. Pesando gave during his cross-examination that the trial judge

based his conclusion that Dr. Pesando "agreed that the market's forecast of future inflation is as good as any". However, it can be seen from the quoted excerpt that Dr. Pesando gave a qualified answer. It was not his opinion that 81/2% was the rate of future inflation. This would only be correct if one accepted that the real rate of interest of 21/2% should be used as the figure to be subtracted from the long-term nominal interest rate of 11%. Dr. Pesando did not accept this figure. As previously indicated he thought that the real rate of interest should be higher -- 3% to 31/2% over the long term.

56 To determine whether the trial judge's award with respect to gross-up is reasonably based on the evidence and, if it is not, the extent of the deviation, it is necessary to consider what role is played in the calculation by the assumed rate of long- term inflation. In this regard, the parties have furnished to us information in the form of a letter prepared by Mr. Rosen, the respondents' accountant witness.

57 The information furnished by Mr. Rosen is that the assumed rate of long-term inflation is used directly in three parts of the calculation. The following are all indexed by the assumed long-term annual rate of inflation: (1) all expected future expenses; (2) the annual income loss; and (3) the tax brackets and tax deductions.

> Mr. Rosen adds the following explanatory comment:
>
> It is essential to index these amounts since they are being compared to an annual income based on the long-term rate of interest. It is the net of the income and expenses which gives rise to the taxable income in the future which in turn gives rise to the need for grossing-up.
>
> Although the loss of future income is not subject to gross-up, it must form part of the equation initially to determine what the impact of taxes will be upon the plaintiff in the future. At the end of the calculation, the loss of income portion of the award is then factored out of the equation.

58 The assumed long-term rate of inflation may also be used in determining what long-term nominal rate of interest (i.e., investment rate) to use. In this respect, in the present case, the award is based upon adding (through a particular mathematical formula which must be used when percentages are added or subtracted) 81/2% and 21/2% to arrive at the 11.213% nominal interest rate.

59 To recapitulate, in part, it will be recalled that the trial judge arrived at his assumed long-term rate of inflation by deducting 21/2% from 11%. Nothing more appears on the face of reasons but one of the calculations that was then done on the basis of the 81/2% assumed rate of inflation resulted in the use of a long-term nominal interest rate of 11.213%.

60 Subject, possibly, to the discrepancy of 0.213%, we cannot say that the trial judge was wrong in using 11.213% as his long-term nominal interest rate. This was based on evidence given by Dr. Pesando who did not have any quarrel with basing an opinion with respect to long-term nominal interest rates on the market's forecast with respect to long-term government bonds. His qualification related to the appropriate real rate of interest to deduct from the nominal rate of interest to arrive at a figure for the long-term inflation rate. He would have deducted 3% to 31/2% from the nominal interest rate.

61 Where does this leave us? It leaves us, we think, with the use of a long-term nominal rate of interest of 11.213% that is reasonably (apart, possibly, from the .213% discrepancy) based on the evidence. In this regard, although the trial took an unusual turn during the course of the appellant's evidence, we cannot say that the trial judge was bound to accept the rate of 7.625% referred to in Mr. Rosen's evidence and reject the 11% referred to in Dr. Pesando's evidence.

62 The unusual feature of this issue, of course, is that the respondents appeared to be prepared to accept the rate of 7.625% until Dr. Pesando testified. It may be noted that Mr. Rosen is not an economist and, also, that there is no rule that a plaintiff cannot take the benefit of evidence adduced in the course of the defendant's case. Further, while a trial judge should, as a general rule, refrain from developing points or issues not raised by the parties, in this case Dr. Pesando did give evidence-in-chief to the effect that the best forecast of the future level of long-term interest rates was their level today. He implicitly confirmed this while he was questioned by the trial judge during his cross-examination.

63 Accepting, for the moment, that we cannot properly interfere with the use of an 11% or 11.213% long-term nominal rate of interest, what is the position with respect to the use of the 81/2% rate of long-term inflation in the other parts of the calculation? As we have already said, it is not supported by Dr. Pesando's evidence. Dr. Pesando would have deducted 3% to 31/2% from the 11% with the result that his long-term inflation rate would have been between 7% and 8%.

64 As previous decisions have indicated the calculation of an accurate amount for gross-up is far being an exact science. There is not much to be gained by pursuing further the question whether 21/2, 3 or 31/2% should be deducted from the 11%. It would appear that a higher figure for the long term inflation rate may be of benefit to the appellant with respect to two of the calculations -- the future expenditures and the tax brackets and tax deductions.

65 In the light of the foregoing and taking into account that, in any event, a substantial reduction has to be made to the figure resulting from this initial mathematical calculation (on the basis of the considerations dealt with in the next part of these reasons) we think that justice will be done at this stage of the calculation if a long-term nominal interest rate of 11% and a long-term inflation rate of 8% is used. Using these rates the initial amount of the gross-up on the sum of $901,970 (which is the total of the amounts awarded for the management fee, the future prosthetic costs, and the future housekeeping costs) would be $797,000.

5. Other considerations respecting gross-up

66 The appellant submits that the trial judge erred in basing his award upon a fund comprising long-term government bonds and in not giving effect to evidence given on behalf of the appellant relating to the tax benefits of a mixed portfolio (i.e., one including corporate shares) and of various forms of tax avoidance schemes. There was conflicting evidence on these issues and, while it would have been more helpful to the parties and to us if the trial judge in his reasons had dealt more extensively than he did with the considerations that affected his judgment on this, and on other issues, we cannot say that his conclusions are wrong or are not reasonably based on the evidence.

67 There was strong evidence given on behalf of the respondents that Antonella could not afford the risks of a mixed portfolio and that the liquidity (i.e., cash flow) benefits and comparatively less risk of government bonds would be enhanced by including in the portfolio a collection of government bonds of varying lengths of maturity so that the flow of funds could be matched with the expenditures required to be made.

68 There was also evidence with respect to the risk involved in the various tax avoidance schemes suggested on behalf of the appellant. In this regard, one of the tax experts called on behalf of the respondents testified that it was unrealistic to discuss tax planning over a 50- or 60-year period. There was no assurance that the present tax-saving schemes would be available over that period of time. He testified that it was "almost nonsense" to speak about tax planning over a 50- or 60-year period of time, and that it was equal "nonsense" to speak of tax liabilities for the same period. The trial judge accepted the evidence of this witness with respect to tax planning. We think that as a matter of consistency and good sense he should also have paid some regard to his evidence respecting future tax liabilities. In this latter regard we refer to what this court said in McErlean v. Sarel (1987), 61 O.R. (2d) 396 at pp. 435-36, 42 D.L.R. (4th) 577, 42 C.C.L.T. 78 (C.A.):

> In Lewis v. Todd et al., supra, at pp. 267-8 D.L.R., pp. 708-9 S.C.R., Dickson J. said:
>
> "[T]he award of damages is not simply an exercise in mathematics which a Judge indulges in, leading to a "correct" global figure. The evidence of actuaries and economists is of value in arriving at a fair and just result. That evidence is of increasing importance as the niggardly approach sometimes noted in the past is abandoned, and greater amounts are awarded, in my view properly, in cases of severe personal injury or death. If the Courts are to apply basic principles of the law of damages and seek to achieve a reasonable approximation to pecuniary restitutio in integrum expert assistance is vital. But the trial Judge, who is required to make the decision, must be accorded a large measure of freedom in dealing with the evidence presented by the experts. If the figures lead to an award which in all the circumstances seems to the Judge to be inordinately high it is his

> duty, as I conceive it, to adjust those figures downward; and in like manner to adjust them upward if they lead to what seems to be an unusually low award."
>
> This reflects a recognition that, despite the superficial appearance of accuracy and precision in the calculation of damages when actuarial and economic evidence is used, there is, underlying the process, great scope for error. With respect to the future impact of income taxation the variables and uncertainties include: future investment rates; future inflation rates; the components of the fund which comprise the award -- interest income, dividends and capital gains, all of which receive different tax treatment; future tax rates; future allowable exemptions and deductions in the computation of taxable income; and the amount of the plaintiff's income from other sources.
>
> In the present case, the trial judge accepted all of the respondent's expert evidence and, more significantly, its ultimate results, uncritically. In so doing, we think, he erred. We appreciate that the explanation for this may well be that he did not receive the assistance from the appellant to which he was entitled. If he had considered the result of the gross-up calculation, which was substantially larger than the basic award for the cost of future care itself (in fact 153% of it), he might well have been compelled to conclude that it was inordinately high. He gave no consideration to the factors to which we have already referred relating to the uncertain and speculative nature of future tax liability, including the possibility of legislative changes that might afford more substantial, if not complete, relief to persons in the position of the respondent.
>
> If the trial judge had addressed the matter of his residual discretion and adjusted the award accordingly, it may be that there would have been no basis which would justify our interference with the result. Since he did not address the matter and since we are of the opinion that the award for gross up is inordinately high, it is our duty to make the adjustment. Exercising our best judgment, we would have reduced the award for gross up by one-half, i.e., to $1,568,162.

69 We think that these considerations are equally applicable to the present case. Exercising our best judgment, we reduce the amount for gross-up by 35%, $278,950, with the result that the award for this item in the damages would be $518,050.

70 In leaving this issue we mention that in Nielsen v. Kaufmann (1986), 54 O.R. (2d) 188 at p. 206, 26 D.L.R. (4th) 21, 36 C.C.L.T. 1 (C.A.), and in McErlean v. Sarel, supra, at pp. 436-37, this court noted the necessity for legislative reform with respect to the award of an amount for gross-up.

We will not repeat what was said in those decisions but would note that the Ontario Law Reform Commission in its Report on Compensation for Personal Injuries and Death (1987) at pp. 139-47 has made detailed recommendations for the reform of the law on this subject.

Summary

71 Giving effect to the variations set forth in these reasons, the total award is now:

> Antonella Giannone Non-pecuniary general damages $ 125,000.00 Future loss of income and Canada Pension Plan benefits 342,532.00 Future prosthetic costs of the Utah Arm 773,604.00 Future housekeeping costs 67,366.00 Management expenses 61,000.00 Gross-up to cover income taxes on sum awarded 518,050.00
>
> Mario Giannone Special damages 26,056.36
>
> TOTAL AWARD (Exclusive of prejudgment interest) $1,913,608.36

72 In the result, the appeal is allowed, in part, and the total award of $3,298,729.36 is varied to $1,913,608.36 with prejudgment interest calculated on the same basis as in the trial judgment. The parties have asked to speak to the matter of costs on the release of these reasons. They may do so now.

Appealed allowed in part.