IN THE DISTRICT COURT
AT WELLINGTON

I TE KŌTI-Ā-ROHE
KI TE WHANGANUI-A-TARA

[2021] NZACC 18 **ACR 350/18**

UNDER	THE ACCIDENT COMPENSATION ACT 2001
IN THE MATTER OF	AN APPEAL UNDER SECTION 149 OF THE ACT
BETWEEN	J HARONGA Appellant
AND	ACCIDENT COMPENSATION CORPORATION Respondent

Hearing: 11 November 2020
Heard at: Nelson/Whakatū

Evidence Completed: 13 January 2021

Appearances: S Macann for the appellant
J Sumner for the respondent

Judgment: 18 January 2021

RESERVED JUDGMENT OF JUDGE DENESE HENARE
[Work Related Gradual Process Injury – s 30 Accident Compensation Act 2001]

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[1] The appellant, Joseph Haronga worked in the meat processing industry for more than four decades.

[2] In 2016 Mr Haronga received cover for a lumbar strain or sprain which involved a significant wrench, as he bent forward to catch a falling lamb carcass. He experienced pain over the lumbar spine in the lumbar thoracic region with radicular

pain to his lower limbs. At the time of the accident, Mr Haronga worked for Fresh Meats as a butcher, which is mainly involved in export lamb.

[3] A medical case review by an orthopaedic surgeon subsequently confirmed central spinal stenosis as well as lateral spinal stenosis at multi-levels of the lumbar spine.[1] Mr Haronga filed a claim for cover for spinal stenosis as a work-related gradual process injury.

[4] The Corporation first declined cover on the basis:

- There was no work task or factor in his work environment identified as having caused his condition; and
- The work he did in his work environment was not recognised as placing workers at significantly greater risk of developing his medical condition.

[5] This decision was quashed at review with the Reviewer directing the Corporation to undertake further investigation. Reports were obtained including a Work Site Assessment by Jane Pierce in September 2017; and an assessment from Dr Ruttenberg in October 2017.

[6] The Corporation then issued a second decision dated 15 November 2017 declining the claim on the same basis as the first decision.

Issue

[7] There is no dispute Mr Haronga has suffered a personal injury of spinal stenosis. The issue is whether the spinal stenosis is a work-related gradual process injury.

[8] Mr Haronga must establish under section 30 of the Accident Compensation Act 2001 (the Act), a gradual process injury caused in the circumstances described in subsection (2).

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[1] Spinal stenosis is defined as narrowing of the vertebral canal, nerve root canals, or intervertebral foramina of the lumbar spine caused by encroachment of bone upon the space; symptoms are

[9] The circumstances are:

[i] He performed an employment task as a meat process worker that has a particular property or characteristic;

[ii] The particular property or characteristic causes or contributes to the cause of the personal injury (spinal stenosis); and

[iii] The particular property or characteristic is not found to any material extent in his non-employment activities; and

[iv] The risk of suffering the personal injury (spinal stenosis) is significantly greater for persons who perform the employment task than for persons who do not perform it.

[10] Mr Macann and Mr Sumner provided a statement of agreed facts and a statement of position of the parties which are reproduced.

Agreed Facts

[11] Mr Haronga is a 63 year old man who has worked as a meat process worker, specifically as a pelter, gutter, and legger, in the meat processing industry for 44 years.

[12] Mr Haronga has a number of claims with the Corporation for lumbar strains and sprains, suffered since 1984. The most recent accident occurred on 14 March 2016.

[13] On 15 March 2016, Dr Greg Beacham, General Practitioner ("GP"), lodged a claim with the Corporation on behalf of Mr Haronga for a lumbar sprain.

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caused by compression of the cauda equina and include pain, paresthesias and neurogenic claudation: Dorlands Medical Dictionary 32nd Ed.

[14] By way of an x-ray scan report dated 20 April 2016, Dr Eileen McGlynn, Radiologist, opined that Mr Haronga had hypertrophic degenerative changes with degenerative disc disease.

[15] On 23 May 2016, Mr lain Kelman, Orthopaedic Surgeon, undertook a medical case review. He recommended an MRI and opined:

> An accident event occurred on l4-3-2016. He had multiple previous back injuries in the past. X-rays have demonstrated hypertrophic degenerative disease. It is likely that this accident event rendered a lumbar spine symptomatic in that he is close to developing clinical spinal stenosis. This accident event has bought this condition on.
>
> …
>
> His current condition demonstrates clinical spinal stenosis ... incapacity is only in part as a result of the accident of l4-03-2016 in that it rendered a developing spinal stenosis symptomatic.

[16] By way of an MRI scan report dated 1 June 2016, Dr McGlynn noted:

> Multilevel endplate hypertrophic degenerative change and degenerative disc disease with facet joint arthrosis, giving rise to mild to moderate L2-3 and moderate to severe L3-4 spinal stenosis. Multilevel lateral recess impingement most pronounced as the L2-3 and L3-4 levels as described above.

[17] On 13 June 2016, in receipt of Dr McGlynn's MRI scan report, Mr Kelman opined in a supplementary report:

> The findings of the MRI scan confirm that there is significant central spinal stenosis as well as lateral spinal stenosis at multi-levels.
>
> It is evident therefore that this condition is largely degenerative and not related to any specific personal injury by accident. Such an accident may however have aggravated the condition but not caused it.

[18] On 21 June 2016, Dr Peter Stormer, Branch Medical Adviser ("BMA"), concluded:

> Mr Kelman has confirmed that Mr Haronga's multilevel lumbar pathology is not attributable to injury. This does not alter Mr Haronga's cover for a lumbar sprain on 14/3/16, but any continuing and current incapacity is now due to the underlying degenerative condition rather than to injury on 14/3/16.

[19] On 7 September 2016, Dr Beacham lodged a WRGP claim with the Corporation on behalf of Mr Haronga. Dr Beacham lodged the claim for a lumbar sprain, attributed to:

> Worked in nmeat (sic) industry as a pelter, a gutter, a legger for 44 yrs. 9 documented lumbar sprains to thye (sic) lumbar spine since 1984.

[20] On 12 September 2016, Dr John Monigatti, Occupational Physician and Lead Occupational Health Advisor, provided a report to the Corporation. He opined that Mr Haronga had a degenerative condition, rendered symptomatic by the accident in March 2016, but the accident was not causative to injury.

[21] On 21 September 2016, Mr Haronga completed a client cover questionnaire, describing his history of work tasks as including "legging, pelting, gutting, sticking, stunning, brisketing".

[22] On 22 September 2016, the Corporation completed a gradual process claim summary in order to determine whether cover should be granted for a WRGP injury under section 30 of the Act.

[23] On 22 September 2016, the Corporation wrote to Mr Haronga advising him that his claim had been declined.

[24] On 17 October 2016, the Corporation received an application to review the 22 September 2016 decision.

[25] Dr Chris Walls, Occupational Physician, upon reviewing Mr Haronga's file, provided a report dated 21 December 2016. Dr Walls opined:

> … it would be most likely in my opinion that Mr Haronga 's current condition is a combination of a Gradual Process Injury(+/- previous episodes of specific personal injury by accidents that were described as "back strain") and a Personal Injury by Accident (March 2016) that have caused his spinal stenosis condition to decompensate clinically.

[26] Dr Walls provided a further opinion on 13 February 2017, which included the following:

> … in my opinion, although there is reasonable evidence supporting the development of "spinal arthritis" following a lifetime's exposure at work to the Low Back Disorder risk factors in Mr Haronga's case his condition is probably best described as the outcome of significant lumbar disc pathology arising as a consequence of specific incidents at his work as a meat process worker.

[27] On 22 February 2017, in receipt of Dr Walls' further opinion, Dr Monigatti opined in a supplementary report:

> ... The more straightforward explanation, requiring no assumptions, is the one favoured by Mr Kelman - that Mr Haronga 's stenosis is the consequence of ageing in an inherently predisposed individual. That is the one to be preferred.

[28] Dr Walls provided a further opinion on 16 May 2017, which included the following:

> a. I accept the clouded nature of the epidemiological evidence.
>
> b. Nevertheless I am on the opinion (sic) that on balance the epidemiological evidence that I have detailed in my first report supports that a sufficient exposure to Mr Haronga 's work as a meat process worker that contains know risk factors leads to a significant excess of this injury (lumbar disc injury and secondary lumbar spondylosis) above the community rate of this condition.
>
> c. As far as I can determine there is no evidence that the environment (for example lowered air temperature) has any effect on the development of this injury.

[29] On 31 May 2017, Mr Paul Wilson, Review Officer, issued a decision for Review 4955091. He considered the expert medical evidence on file was not persuasive, noting evidential concerns of the existing reports of Drs Beacham, Walls and Monigatti. Accordingly, he quashed the Corporation's decision of 22 September 2016 and issued directions.

[30] On 21 September 2017, Ms Jane Pierce, Ergonomic Physiotherapist, completed a standalone workplace assessment report, which addressed the physical demands of Mr Haronga's work and the features of his workplace environment.

[31] Mr Haronga was then referred for a medical assessment with Dr David Ruttenberg, Occupational Medical Specialist.

[32] On 11 October 2017, Dr Ruttenberg completed a comprehensive medical assessment report, which provided the evidential basis on which the Corporation concluded that Mr Haronga did not satisfy the criteria set out in s 30 of the Act.

[33] On 15 November 2017, the Corporation completed a gradual process claim summary, which considered Ms Pierce's workplace assessment report and Dr Ruttenberg's medical assessment report.

[34] On the same date, the Corporation issued the Decision.

[35] On 5 January 2018, the Corporation received an application to review the Decision. The application stated that Mr Haronga did not agree with Dr Ruttenberg's report and the Decision.

[36] On 30 April 2018, Dr Walls provided a further opinion for Mr Haronga. He considered the workplace assessment of Ms Pierce and disagreed with Dr Ruttenberg's conclusions. He opined:

> My proposal is that Mr Haronga suffered disc injuries, these resolved but with pathological alterations to the mechanics of the lumbar spine, these post injury changes coupled with ongoing exposure to recognised low back hazards (and increasing age) accelerated the "degenerative" changes and led to Mr Haronga's spinal stenosis and current scanning appearance.
>
> Mr Haronga has a post traumatic osteoarthritis of the lumbar spine.
>
> Thus his condition is a mixture of the effects of Personal Injury by Accident (the discreet (sic) events) and a Gradual Process Injury.
>
> I remain of the opinion that Mr Haronga's low back condition has been substantially or significantly contributed to by his many years of heavy work activities in the meat processing industry.

[37] On 25 May 2018, Mr Wilson issued the Review Decision for Review 5695091, following a detailed analysis of the medical evidence. Mr Wilson dismissed the review application and found:

> I accept [Dr Ruttenberg's] evidence and based upon it, I am satisfied Mr Haronga 's spinal stenosis is not a work related gradual process condition.

[38] On 15 November 2018, a notice of appeal of the Review Decision was filed with the District Court.

[39] On 27 February 2020, Dr Walls provided a further opinion, having met with Mr Haronga on 17 February 2020 to undertake a medical examination. He concluded:

> In summary:
>
> I remain convinced that Mr Haronga has suffered a significant contribution (far more than trivial) from his work activities to his low back disorder.
>
> …
>
> These low back injuries more common in his industry (meat processing) as a consequence of the work tasks, a factor recognised by ACC and the industry itself.

[40] On 12 June 2020, Dr Beacham provided a further opinion for Mr Haronga, which included the following:

> SUMMARY
>
> There is no doubt in my mind, after a long experience in the freezing industry in New Zealand, having worked in the freezing industry for several seasons as an undergraduate, that Joseph Horonga has a very good cause for work related gradual process, as well as acute recurrent injury to the lumbar spine. He satisfies, in my view, the 3 part TST (sic).
>
> It is to me as a clinician, difficult to separate work related gradual process and repeated acute injuries to the lumbar spine. In my view repeated acute injuries as well as constant work for a lifetime on produce the same pathological end result. In my view both work related gradual process and acute injuries are indeed probably cumulative in producing the end pathological result such as, is seen in Joseph's lumbar spine.

Submissions of the parties

[41] Mr Macann's submissions for Mr Haronga are reproduced as follows:

[i] The Corporation's decision and review decision are incorrect and should be overturned at appeal.

[ii] This is a work-related gradual process injury as determined under the Act.

[iii] Mr Haronga's back events were so gradually incremental that they could not be distinguished one from the other.

[iv] Mr Haronga's work environment must be seen in the context of his work tasks since the early 1970s where working conditions in the meat industry were of a heavy labouring nature with a heightened risk of injury.

[v] Dr Walls and Dr Beacham are both very familiar with the meat industry environment, and their opinions should be preferred to the generalist opinion of Dr Ruttenberg.

[42] Mr Sumner's submissions for the Corporation are reproduced as follows:

[i] The Corporation's decision and the review decision are correct and should be upheld at appeal;

[ii] On the balance of probabilities, the appellant has not satisfied the criteria of section 30 of the Act, required to gain cover for a work related gradual process injury, specifically Mr Haronga has not established that:

(a) He performed employment tasks as a meat process worker that had a particular property or characteristic; and

(b) The particular property or characteristics of those employment tasks caused or contributed to the cause of the personal injury identified (spinal stenosis); and

(c) The risk of suffering spinal stenosis is significantly greater for persons who perform these employment tasks than for persons who do not perform it; and

[iii] The evidence of Dr Ruttenberg should be preferred as it provides a cogent and balanced review of available medical evidence and the epidemiological literature highlighted by both parties.

[43] Mr Sumner submitted s 30(2)(b)(ii) of the Act is not contested as no non-employment activities with a particular property or characteristic has been identified which are said to cause or contribute to the cause of spinal stenosis.

Issue One: Whether the work task caused or contributed to the cause of Mr Haronga's personal injury

[44] The question arising from s 30(2)(b)(i) is whether the spinal stenosis is a work related gradual process injury that can be said to have been caused by Mr Haronga's work tasks as a meat process worker since 1984.

[45] The experts considered a causal link existed between the work tasks and back symptoms, but they disagreed the work tasks and spinal stenosis were causally linked. Under the legislation, it is only necessary to show the work tasks contributed to the cause of the personal injury.

[46] The difficulty generally arising in this type of case is assessing the relationship of the effects of the work tasks on the underlying pathology, having regard to the medical studies and research. I agree with Mr Sumner's submission that the approach taken by the court is not to resolve any differences between studies but to consider how the specialists had applied their own experience and history across the issue and reached appropriate conclusions.

[47] Mr Sumner submitted there are two difficulties in the case for Mr Haronga. The first is insufficient evidence, other than mere assertion from Dr Walls, whether the multi level spinal stenosis is post-traumatic given the lack of medical reasoning to causally link the covered sprain injuries to multi level spinal stenosis. The second difficulty then concerns whether the work tasks are a plausible cause of the spinal stenosis where peer reviewed occupational medical literature might show an association between the work tasks and back pain but that does not mean the individuals in the studies had discal change or particularly spinal stenosis.

[48] I agree with Mr Sumner the contest of opinion in the case is primarily between Dr Ruttenberg and Dr Walls.

[49] Mr Kelman noted the schedule of claimant injury recorded Mr Haronga was granted cover for ten episodes of lumbar sprain and strain injuries as a result of his work. Dr Ruttenberg said the extent of incapacity regarding these injuries was unclear. Dr Walls noted the history he took from Mr Haronga that following each episode Mr Haronga performed restricted duties and stoically worked on.

[50] Mr Kelman referred to the MRI findings of spinal stenosis, and noted:

> Multilevel endplate hypertrophic degenerative change and degenerative disc disease with facet joint arthrosis, giving rise to mild to moderate L2/3 and moderate to severe L3/4 spinal stenosis.

[51] Mr Kelman commented the pathology is largely degenerative and not related to any specific personal injury by accident, but he did not have any details about the historical accidents and injuries. He stated the March 2016 accident may have aggravated the condition but not caused it. Mr Kelman did not give explanation for this view.

[52] Dr Monigatti agreed with Mr Kelman's conclusions. Dr Monigatti opined the spinal stenosis arose in conjunction with age associated degeneration of lumbar discs and facet joints. Dr Monigatti commented that degenerative lumbar spinal disease occurs regardless of occupation, and heavy work tasks bring the degenerative condition to the worker's attention sooner by provoking symptoms. Dr Monigatti opined this process is likely to have occurred in Mr Haronga's case.

[53] Dr Ruttenberg considered the changes seen in the pathology are "not unexpected in a man of this age". Noting the multi-level disc pathology in the lumbar spine, Dr Ruttenberg acknowledged that a discal injury may have been suffered in the past, however he thought it was beyond the realms of statistical probability that any single event affected or impacted on every disc causing bony changes.

[54] Dr Walls opined it was likely the back injuries for which Mr Haronga received cover for a lumbar sprain caused disc injury and the spinal stenosis was contributed to by disc injury. Dr Walls noted the MRI findings showed mild to severe spinal stenosis. He said the force entailed in the mechanism of injury in the March 2016

accident in which Mr Haronga received cover for lumbar sprain, can cause a disc injury. Dr Walls explained the imaging showed diffuse disc bulge with extruded disc material. He noted too the disc bulge at L5-S1 preceded the March 2016 accident. He opined the disc extrusion would lead to disc space narrowing, in turn leading to degenerative changes causing spinal stenosis. In his final opinion Dr Walls reiterated Mr Haronga acquired spinal stenosis because of the secondary bony changes brought about by multi-level disc disease, which he described as post-traumatic osteoarthritis.

[55] What is to be made of these different opinions? I take into account Mr Kelman did not have any information about the historical injuries, other than Mr Haronga received cover for sprains. Dr Ruttenberg acknowledged discal injuries may have occurred but that could not have been the case in respect to every covered injury. Dr Ruttenberg opined Dr Walls view of the pathology was conjecture. However, Dr Walls's view is supported by the pathology in part following the 2016 accident in which cover was granted for a sprain injury notwithstanding the evidence of disc bulge.

[56] Noting the strengths and weaknesses in each opinion, I am prepared to accept Dr Walls' account of causal contribution of the covered injuries to spinal stenosis because he considered more fully the history of work provided by Mr Haronga and provided a plausible explanation how the covered injuries altered the mechanics of the back leading to bony changes described as degenerative.

[57] I now turn to consider the work tasks performed by Mr Haronga.

[58] There is no dispute Mr Haronga engaged in physically demanding work with tasks involving heavy lifting, forceful and repetitive movements with constrained or awkward postures. In his client questionnaire, Mr Haronga stated his work entailed pelting, gutting, brisketing and flaying as his usual work tasks. He recorded he performed "about 500 lifts" per day of sheep meat and carcass with weights lifted of 20kg to 30kg.

[59] Ms Pierce noted in the worksite assessment report that Mr Haronga performed evisceration, processing one carcass every three minutes. Mr Haronga gave evidence

at review this description was incorrect and he processed three carcasses every minute, not one every three minutes. At review too, Mr Haronga explained the range of postures involved in his tasks entailed repetitive bending (to pull sheep stomachs from the carcass), lifting, twisting, pushing and pulling.

[60] Dr Walls provided the most comprehensive history of the work undertaken by Mr Haronga. In his 2020 report, Dr Walls described the process of "pelt pulling". He said the pelts were not removed mechanically, another process worker would start the depleting and then the next worker would strip the carcass by pulling forcibly downwards on the pelt. He recorded Mr Haronga undertook these tasks once or twice a week for nine hours at a time. He noted that:

> At Progressive Meats he would work five hours, there would be 22 carcasses, he would open the carcasses, hang up on the chain though this was relatively easy as the carcasses were lifted by a pulley. The second person would remove the pelt and eviscerate the carcass before doing further butchering.
>
> At Tekapo he would work "up and down" the line in various roles, he describes the line as going at a very fast pace and being built incorrectly so that the butchers had to adopt a difficult or awkward stance. Joseph Haronga describes having to stand twisted and being cramped for space, the butchers were standing closely together so that if he spread himself around he would start taking up another butcher's space and this would lead to problems …
>
> He describes everything as being heavy because of the faulty design of the line. The carcasses had to be lifted from one line to another, this would mean changing from suspending the carcass by the front legs to the back legs. The change would often be fumbled and Joseph describes that he would have to lean forward and catch the carcass to stop it falling onto the ground (and stopping the line). This would happen once or twice a day depending on who was on the other side of the chain and he would have to catch the carcass with one hand and pull it up onto the line.

[61] Dr Walls went on to describe the work tasks as part of Mr Haronga's work as a butcher:

> He describes everything as being "heavy", because of the faulty design of the line the carcasses had to be lifted from one line to another, this would mean changing from suspending the carcass by the front legs to the back legs. The change would often be fumbled and Joseph describes that he would have to lean forward and catch the carcass to stop it falling onto the ground (and stop the line). This would happen once or twice a day depending on who was on the other side of the chain and he would have to catch the carcass with on hand and pull it up on to the line.

[62] There is no dispute establishing a link between the work tasks and lumbar pain, the question is whether there is a causal link between the work tasks and the underlying pathology.

[63] Dr Ruttenberg noted no randomised controlled trials, prospective cohort studies or case controlled studies that identified risk factors, occupational or otherwise as associated with spinal stenosis. In particular he noted no peer reviewed literature that suggests those who work as meat workers have an increased relative risk and incidence of developing lumbar degenerative disease, bony facet joint changes and resultant spinal stenosis.

[64] Dr Walls acknowledged the types of issues relevant to the present case, particularly disc degeneration had been considered by the United States National Institute for Occupational Safety and Health (NIOSH) noting in particular the accepted risk factors are:

- There is strong evidence for a positive association between work related lifting and forceful movements and low back disorder.
- There is strong evidence for a positive association between whole body vibration and forceful movements and low back disorder.
- There is evidence for a positive association between heavy physical work and low back disorder.
- There is evidence for a positive association between work related postures and low back disorder.

[65] Dr Walls then drew on the conclusions in other international research in Germany, the United Kingdom and Nigeria noting causal connection between occupational tasks in meat processing work and low back disorders taking into account criteria of strength, consistency, specificity, temporality, coherence and analogy.

[66] Research published in New Zealand regarding musculoskeletal disorders arising from work tasks in the NZ Meat Industry data by Tappin[2] was particularly noted by Dr Walls:

> Tappin published NZ Meat Industry data (ACC claims and industry survelliance data from 2002 to 2004) in 2008, this is essentially a descriptive study and acknowledges the need for more specific analysis.
>
> **As in Mr Haronga's case Maori and some geographical areas were over-represented in my opinion reflecting the predominant location of meat processing plants near areas of supply and transport hubs.**
>
> The anatomical distribution of injuries in this dataset was described as "The most common body parts injured were wrist/hand (31.3%), back/spine (24%), shoulder (16%), arm/elbow (14.4%) and lower limb (11.1%). These percentages are closely aligned with those of the ACC data and reflect the high risk tasks for MDS identified below" and further describes "most of the injuries occurred in the slaughter and bonding departments (74% for sheep and 84% for beef) which is consistent with the numbers of staff usually employed in these two areas".
>
> The most common activity at the onset of pain was lifting …
>
> The diagnostic description (very loose and general) is of 'Most MSD 981%) were categorised in the database as "soft tissue" or "sudden onset" MSD injuries, while the remaining 19% were "gradual onset" injuries. A total of 53.7% of cases were injuries to the upper limb, 27.8% to the upper/lower back and 10% to the lower limb, with a large proportion of MDS located at the hand/wrist (23%) and shoulder (16.5%). **For actual diagnosis, <u>lumbar spine-related MSD were easily the major injury type (21.5%)</u>** followed by wrist sprains other than carpal tunnel injuries (9.3%), carpal tunnel syndrome (6.8%), sprains and tendonitis of the upper arm (9.2%), shoulder MSD including rotator cuff syndrome (9.1%), various shoulder sprains, tendonitis and tendon ruptures and elbow sprains, tennis elbow and epicondylitis (7.5%).
>
> Essentially all this article does is validate Mr Haronga's descriptions of the occupational events associated with the onset of pain and identify "lumbar spine-related MSDs as a factor of this industry, the stated incidence in this industry being in excess of the community rates.
>
> [Emphasis added]

[67] Having considered Dr Walls' 2020 report carefully, a number of points emerge. First, the NIOSH study provides evidence for a causal contribution between the type of heavy work undertaken by Mr Haronga and lumbar spine injury. Secondly, Dr Walls referred to other research including New Zealand studies noting

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[2] Tappin DC et al An analysis of sprain and strain injury data for the New Zealand meat processing industry from national an injury surveillance databases Ergonomics 51; 11 November 2008, 1721-1734.

the over representation of Maori and some geographical areas in meat processing plants and higher incidence of musculoskeletal disorders in consequence.

[68] Overall, in my opinion, the evidence favours a probability that Mr Haronga suffered a work related gradual process deterioration of his lumbar spine that was not wholly caused by age related deterioration but contributed to by his work tasks. The 2016 injury was likely to have been the final straw precipitating the ongoing pain from pathology brought about by injuries and work related gradual process. I accept Dr Walls' opinion that the damage overall was unlikely to have been wholly caused by ageing or disease.

[69] I find there is sufficient evidence to support a causal contribution between the types of heavy physical work tasks undertaken by Mr Haronga and his lumbar spine pathology.

[70] The requirements of s 30(2)(b) of the Act are therefore satisfied.

Issue Two: Whether Mr Haronga's work tasks led to significantly greater risk of personal injury?

[71] The second issue can be addressed relatively briefly. As noted above the question to be determined, pursuant to s 30(2)(c), is whether the risk of suffering the personal injury:

> … is significantly greater for persons who perform the employment tasks than for persons who do not perform it.

[72] The relevant test is set out by Young J in *Knox v ARCIC*[3] in which His Honour provided:

> The risk to a person carrying out the relevant task in the relevant work environment of developing the injury concerned was classified as 'X'. The risk to persons not performing that task in that environment of suffering from that personal injury was classified as 'Y'. If 'X' were determined to be significantly greater than 'Y', section 7(1)(c) of the 1992 Act was satisfied, whereas if not, the claim for cover must fail.

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3 *Knox v Accident Rehabilitation Compensation Insurance Corporation* [2000] NZAR 609 (HC)

[73] The meaning of the expression 'significantly greater risk' was discussed by Judge Ongley in *Turner v ACC*[4]:

> *A further point of law on which counsel were not in agreement is the meaning of "significantly" in the expression "significantly greater risk" in s33(3)(c).* [the corresponding provision in the Accident Insurance Act 1998]. *The word is open to two different interpretations. In this jurisdiction, the approach to construction of the statute should be generous rather than niggardly: see* ACC v Mitchell [1992] 2 NZLR 436 at 438, *Harrild v Director of Proceedings* [2003] 3 NZLR 289 at 296 and Campbell and Handley v ACC *(CA 138/03 29 March 2004).*
>
> *[60]* ***Once causation is established and attributed to work tasks or work environment, it would seem to be an unfair barrier to obtaining cover for a work related gradual process injury if the risk factor had to be markedly or substantially greater than the risk occurring in the general population.*** *The degree of heightened risk would also be difficult to define in order to achieve consistency between claims. The alternative approach to construction, as Mr Beck submitted, is to regard "significantly" to mean more than marginally, or a statistically significant increased risk. That is a construction more in line with the purpose of the legislation to provide for a fair and sustainable scheme for managing personal injury.*
>
> *[61] The Oxford English Dictionary contains a short definition of "significantly" as a quasi-adverb meaning "in a significant manner; so as to convey some meaning; expressively, meaningly". The OED contains a definition for "significant" in relation to statistics as "of an observed or calculated result, such as the difference between the means of two samples: having a low probability of occurrence if the null hypothesis is true; statistically significant, significant at some conventionally chosen level, freq. five per cent." Section 33(2)(c) necessarily involves statistical comparisons and it is reasonable to consider that "significantly" was used in a statistical sense.*
>
> *[62]* ***There is less reason to suppose that the legislature wished to indicate a requirement for a much greater or substantially greater risk.*** *A likely purpose for using the expression would have been that the risk should not be measured by balancing general probabilities, but there should be a proper evidential basis to reach a comparison that is significant or measurable. If the answer to the risk question were that the nature of the work tasks suggests that there is probably a greater risk to persons doing those tasks, that would not be enough.* ***But if there is expert opinion either that an aspect of the tasks poses a special risk, or that epidemiological studies show that there is a palpably greater risk for the occupational group measured against the general population excluding persons doing that task, then the test would be satisfied without requiring proof that the difference is major or substantial. In my view that is the meaning ascertainable from the text of the statute in the light of its purpose.***
>
> [Emphasis added]

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4 *Turner v Accident Compensation Corporation* [2007] NZACC 229

[74] The assessment of the significantly greater risk test is to be undertaken by expert opinion. Dr Ruttenberg stated:

- It is well recognised that the most common cause of these changes is age related and relate to simple wear and tear process. Age related degenerative changes in the spine are not uncommon, and in order to establish that an individual is at significantly greater risk of those changes, when compared to persons who have not performed the same work, there must be factors in that persons work history to elevate them above the background level of risk;
- There are no factors which have placed the appellant at a significantly elevated risk of spinal stenosis; and
- Suffering spinal stenosis was not significantly greater for a person who performed meat process workers' tasks than for a person who does not. The appellant's radiological findings would be found in a similar aged non-working population group and would not be unexpected in those who do no work in his employment.

[75] Dr Walls answered the greater risk question in his May 2017 report that on the basis of the NIOSH report together with published research he co-authored,[5] supports that a sufficient exposure to Mr Haronga's work as a meat process worker "that contains known risk factors leads to a significant excess of this injury (lumbar disc injury and secondary lumbar spondylosis) above the community rate of this condition."

[76] Weighing the two viewpoints before me and taking into account the approach in *Turner*, I conclude there is insufficient evidence before the Court to support the requirement in s 30(2)(c) that the risk of suffering the personal injury was significantly greater for Mr Haronga.

Result

[77] I conclude on balance, there is sufficient evidence that Mr Haronga meets the elements of s 30 to establish his personal injury is caused by work related gradual process. The Corporation has acknowledged Mr Haronga suffered a personal injury not found in his non-employment activities.

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5 Wigley RD, Walls CB, Brougham D, Dixon P. What does degeneration mean? The use and abuse of an ambiguous word. NZMed J 27 May 2011, Vol 124 No 1335

[78] The three-part test under the legislation having been met, Mr Haronga is entitled to cover for a work related gradual process injury, being the changes to the discs of his lower spine.

[79] Accordingly, the appeal is allowed, the review decision is quashed and the Corporation's decision dated 15 November 2017 is set aside.

[80] Mr Haronga is entitled to reasonable costs and disbursements which I am confident the parties will be able to agree.

Judge Denese Henare
District Court Judge

Solicitors: Ford, Sumner, Wellington for the respondent