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Presidential Address 2006

Females are in fashion

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INTRODUCTION

It is with some trepidation that I explore this topic with you. Please bear with me and don't throw your barbs until the end, when I would imagine there will be at least some of you that I have not offended in one way or another. I don't seek to upset or embarrass any particular person, but I simply want you to think about what I have to say. Some of the references I use are not the kind of reference you could track down easily, but let us just say that was a protocol brought into science by men, set it to one side and see where a more inclusive style of language might lead us. Some of the stuff is so bleeding obvious it doesn't need a reference, but if you want to be really testy about it, just get on the web and type in any of the key words, names or phrases and do your own digging. An important truth that was revealed to me by coincidence rather than research was the following quote from Kant:

"We do not see things as they are, but as we are."

This address contains the facts as I see them. This is a topic which I have spent many years thinking about, and have talked it over with a number of small audiences. In a document I wrote in 1997 I claimed that:

"Feminine input

This is vital for our progress. Wool has been declining for a long time now, maybe the male domination is the reason. Whether it is or not, we need really gutsy face-to-face honest opinion of women in our intended areas of work. Our current information is all filtered by male ears and eyes."

Nine years later the situation has not improved.

Back then, in the *Journal of Animal Science*, Susan Harlander (1996) noted that it is difficult for women to reach senior positions, as if there were a "Glass Ceiling", impervious to the fairer sex. The *Economist* (1997) reported that women need to be twice as good as men to succeed at science! Carol Kemelgor, a co-author of *Athena Unbound*, a study of the paucity of women in science, believes that the negative attitude of girls towards science that starts at school persists at degree level, with disastrous results. "Women tend to lose confidence in their ability to do science, no matter how well

they are doing," she claims. She also suggested that without a network of female peers to support them, women found it hard to keep afloat in male-dominated science laboratories. 'The Leaky Pipeline' (Pell, 1996) is a term used to describe this phenomenon where women leave science at childhood, adolescence, undergraduate, post graduate and this continues if and when they finally do get into a career. Could these forces affect the New Zealand Society of Animal Production?

An article that was originally reported in the *Times* and was relayed in the *Royal Society Newsletter* here in New Zealand caught my attention. Baroness Susan Greenfield, from the UK, said that the barriers preventing women from pursuing careers in science, engineering and technology left a "criminal waste of talent". She said that more should be done to encourage women to study science and to ensure that those who did qualify remained in the sector. More recently I found a website where Susan Greenfield says "One of the problems is that women have always had more complex lives, so are more interested in weighing things up. Science is taught in a fact-oriented way, and boys are happier going for facts and getting something right or wrong. If only schools showed what you could do with the facts, girls would be more interested." It seems there is a great wailing and gnashing of teeth every time we look at the statistics and women are missing out. I counter this argument with the fact that men outnumber women in prison by about 100 to 1, but do we suggest there should be equality in all walks of life?

Cavendish (2006) must have shredded women's hearts with the headline "Women losing battle to have it all." She was writing about Betty Friedan who wrote *The Feminine Mystique* in 1963, which apparently changed the way women saw themselves. Cavendish (2006) says that wealthy women are actually opting out of work to have the freedom to spend time with their children and that has left other women who are not wealthy enough to leave work feeling like they are not doing their job properly, and meanwhile not looking after their marriage or their kids properly. Women are more likely to be working now than they were in 1963, but they are also more likely to be divorced,

unmarried or single mothers. She also reported that women are returning to work soon after having children so that their C.V. does not deteriorate. When I read this article I kind of had the feeling it was saying “Thanks very much Betty!”

The basic differences

In 2006, I have someone to stand behind and he can take the flak. His name is Peter Lawrence and he wrote an article “Men, Women, and Ghosts in Science” (Lawrence, 2006). He had a devil of a time trying to get his article published because the big journals did not want the controversy that this antithesis of political correctness might bring upon them. I learned this from the March 2006 Newsletter of the Association for Women in the Sciences in New Zealand, which was slipped into my hand by an anonymous supporter. Where Lawrence and the Editors of respected journals were hesitant about publishing such information, I am too stupid to pay heed to such caution as members of the Society may well know. I would urge you to read the article, because it is much more reasoned and unbiased than what I am about to tell you. Lawrence (2006) draws on the work of Simon Baron-Cohen (2003) which speaks of the essential difference between men and women and the extreme male brain. He suggests that we should seek diversity in the top research jobs, with a mix of skills from men and women. He believes this would lead to more contented workplaces where the male influence would stimulate competitiveness and the female influence would stimulate supportiveness. He notes that it would provide role models for young women scientists and suggests that aggressiveness of the candidates who do reach top positions in current systems, whether men or women, is counter-productive.

There is a big difference between men and women, but we don't yet understand it. Undoubtedly, we look different. Far more men, and many more scientists and engineers have male-like brains. Without doubt we think differently! You think “Duh!” but wait, what I am talking about are the things that are only recently being discovered. These are things that evolved in us over millennia. There is American research which says most of the stress research has been conducted on men. When men become stressed, their testosterone concentrations elevate and this prepares them for the fight or flight response. These researchers suggested that when women get stressed, a completely different response occurs and oxytocin is released, which leads them to gather the women and children together and head for safety. They extended this argument to suggest that humans evolved this kind of behaviour as

either prey or in response to intra-species conflict. Basically there was always enough men around to create a few new children so the women let them bear the sharp end of the attack, as often as not they started it.

Enough about prey, what about humans as the predator? I have only met three women who openly said to me they just wanted to kill something. One went duck shooting once, another went and shot a deer and the other one bought a big rifle after her husband left her for another woman! I know too many men that go out and shoot stuff on a regular basis to start listing them. Our Newsletter manager Aaron Meikle sends me photographs of dead things all the time, and a previous McMeekan award winner said he learned a lot about deer when he used to hunt them, and they are just two members of this Society who are by no means alone. As part of living and growing up on grazing properties in Australia, I personally shot too many kangaroos, emus, rabbits, and dingoes in the process of protecting my livelihood. I shot enough sheep, cattle and horses out of mercy before I turned thirty, to last me a lifetime. I have not picked up a rifle in years, although there are some fruit and walnut eating possums around our place that have raised my testosterone levels to the point I would have if there was one handy.

Men seem to dominate discussions, interrupt at meetings and treat conversation as a competition. Questions need answers if you are a man, but are just a way of interacting for women. I once went to a women's network meeting at Lincoln, just for the hell of it. It was about women in science and the place was packed with about 60 people. There were only four men at the meeting including myself. The other three men did 75% of asking the questions for the whole audience, while I deliberately sat and observed the women, who sat there patiently and listened to it all. Men seem to dominate in new areas of communication too. West *et al.* (1997) reviewed what they called “gender inequality in cyberspace”. They were very distressed that 85 to 90 % of internet users are boys and men, and that males have developed the rules for electronic communication. One wonders how much of that time was spent searching for recipes and how much was spent looking for pornography.

Apparently there is a ‘man-drought’ in New Zealand! Personally, I don't think we have a shortage of women in NZSAP. There is an inequity in distribution between the crusty old silverbacks and pretty young things. In the management committee this year we had Catherine Morrow as Treasurer, Penny Back as Secretary, and Tricia Johnson acting as both Publications Manager and Conference Convenor. Catherine in particular has

previously held the presidency and associated pre- and post-presidency positions, Newsletter Manager and has helped out with all manner of other things. Perhaps, I set her up a little, but Catherine sent me her impressive CV and photographs of her other achievements and yet still she writes herself off in her own hand in an email to me dated August 31 2005:

“I can think of other women in Science more worthy - Jenny Jago is a good example (she has 3 young kids and is full time doing good science, winner of innovation award *etc. etc.*). Anyway, attached is a photo you are welcome to use (James 11 mth, Caroline 3), I hand-reared a fawn after a difficult pull and the hind rejected it. The only problem with your story is that I haven't done any "good science" since returning to NZ, nothing to be proud of anyway so at the moment I'm a bit of a "has-been" in the actual science field with nothing much added to my CV in the last 5 years and few new publications. That's the sad honest truth. Some of that is because ... my priorities have shifted to the kids and farm and also because it is pretty hard to do decent science part-time when there is so much administrative rubbish to deal with.” Try not to get too depressed about it, Catherine!

Catherine has also been a winner of the Young Members Award and the Innovation Award from this Society, and was nominated for the prestigious Zonta award in her short career. There are claims about that suggest that without a network of female peers to support them, women find it hard to keep afloat in male-dominated science laboratories and without role models they perish (Glenn, 1996). You don't need to look to Marie Curie, Jane Goodall or Rachel Carson. Ladies, indeed some of you gentleman, you could not find a better role model than Catherine. I know I have followed in her footsteps through the Newsletter Manager and on to President of the Society but there is no way you would get me to be Treasurer. In her Presidential Address (Morrow, 2004), Catherine reviewed the Societies activities and concluded with a statement about how the Society was in good financial health with a large membership and that it was fit to mentor future animal production scientists despite the economic and political pressures on research. That is her sense of community spirit, and concern for the future because she is a woman.

Fantastic quotes that encapsulate this thinking are from legendary scientist Jane Goodall:

“Only if we understand can we care.
Only if we care will we help.
Only if we help shall they be saved”

And lesser known male philosopher Peter Scobie (my brother who works for Parks and Wildlife in New South Wales):

“The best three inventions man has ever made are tractors, chainsaws and ready-mixed concrete”

And another of his favourite mottos affronts the feminine concern:

“If it moves, shoot it! If it doesn't move, chop it down and concrete over it”

You have probably heard of sexual dimorphism, but not sexual “di-thought-ism” or sexual “di-behave-ism”. We look different, we think differently and we act and react differently. In my humble male opinion these things are sex-linked genetic traits.

Gender bias – the facts (as I see them!)

Is there truth to this male bias? I was born in 1963, the year the book *The Feminine Mystique* was published, although I was unaware of it for my entire life until now. Let me look back through the only good reference I have, which is my own experience. My rural primary school career started with a massive class of three boys, three girls and finished with three boys (two original and one exchanged for a new one) and one girl. Okay, so it started out even and finished inequitably, but don't believe what you hear about rural Australia, those girls left the district and went to school somewhere else because farming times were tough and they did not leave school because they were going to have a baby. The four of us went off to High School and were joined by a number of others to total 13 girls and 8 guys (good odds for a teenager). Come the end of High School, just the two of us original boys, ten girls and the very original young lady from primary school had gone off to a boarding school for intelligent kids and came top of the whole State examination system in two subjects in her final year. Three of my class went to University, me who just made it into Agricultural Science with the lowest entry mark for University entrants and two sheilas who went into Law (“Sheilas” is an Australian slang term for women. I use it not in a demeaning manner but to make a point that that is where my life experience was at). First year Agricultural Science had slightly less favourable gender ratios, which suited a smooth talking bloke with a flash car. I had neither and remained in a partner-free state amongst 14 sheilas and 18 blokes/yobbos/call-them-what-you-will (“Blokes” is the masculine form of “Sheilas” and that is indeed the role that my male peers aspired to and more often than not fulfilled). Somewhere about here the girls became women and quite clearly the boys matured into idiots.

When we finally graduated, I say finally graduated, there were 9 blokes and 7 women. This is where I really started to shine and came top of two topics at the end of the course. Top marks in one of these subjects was a huge achievement as I got a better mark than the other student in Entomology who was female. I hasten to add that I was dating her at the time, possibly as a consequence of the shortage of males rather than my natural charm and good looks. The other class - well there were only five of us in Animal Science. Three of us went on to PhD level, one woman and two males that I hesitantly call men. Three completed PhDs in the same ratio at different times and in different countries, and the slower of the three was banished to New Zealand and never allowed to return to Australia. All of this evidence is presented in un-replicated treatment group sizes far too small to remove the effects of genotype or environment, but it is the unfortunate series of events that brought me here to stand in front of you. Just another male President of the New Zealand Society of Animal Production in a long line of male presidents, that has to my knowledge been broken only twice by the fairer gender. An honest self appraisal was outnumbered by smarter and harder working female candidates at every significant time point in my career until now, and once again bridesmaid to Catherine Morrow.

Righto, let's take a look at one of the biggest agricultural research outfits in the country, probably because I work for it and I can get the statistics, but I urge you to look around Dexcel and Canesis for comparative figures. This is the end of the conduit where the ideas for the future come rushing forth and piling up at the benches of our research institutions. Recent information that I got from AgResearch head office is in Table 1, 1208 people in the company, 572 females OR 47.35%. We are not ageist either, as there are 14 people over 70 employed by the company, 3 of them female and since women are notorious for lying about their age that is about 50:50. Granted like all databases, they are probably biased by data entry as there was one person with an age of minus 13, and two females and 6 males under 6 years of age BUT within this faulty database there are still inequalities. Let me start with Human Resources 15:1 females to males. Who is to complain about that? If you have a problem you don't want to go cry on a man's shoulder, it is just not right and plain uncomfortable. At the Ruakura Abattoir the ratio is 1:23, and if you want someone to kill and cut up a beast, my guess is that by and large, though not exclusively, the task will be unattractive to females and just plain icky. On the AgResearch farms the ratio is 23:74. Females are proven to be better at rearing calves, but boys like

Table 1: The gender count in selected groups of AgResearch as at April 2006.

Group	Female	Male
Abattoir	1	23
Information Technology Services	7	27
Farm	23	74
Other	10	23
Bioinformatics, Mathematics & Statistics	8	17
Land & Environmental Management	20	39
Dairy Science	22	34
Forage Improvement	29	44
Metabolism & Microbial Genomics	17	23
Management, Strategy, Legal	8	10
Biocontrol and Biosecurity	38	47
Growth & Development	25	30
Commercial Services	13	15
Agricultural Systems	30	34
Meat Quality & Safety	14	14
Rumen, Nutrition & Welfare	22	19
Animal Health	41	32
Forage Biotechnology	46	33
Reproductive Technologies	30	19
National Resources & Facilities	48	30
Reproductive Biology	26	15
Animal Genomics	35	19
Finance	17	8
Corporate Affairs	12	5
Human Resources	15	1
Library	15	1
AgResearch Total	572	636

driving tractors - the bigger the better. The group of which I am a lowly member is Growth and Development, and has a much better female to male ratio 25:30, but when you get down to the business end of the people who work on wool and skin and fibre type stuff, then you will see most of them line up at tomorrow's contract on wool. Actually the people who do quite a lot of the work in our little group are four female Research Associates, but the pillocks who wander around and take credit for it - are 9 men, 6 of them male scientists. Indeed Johanna Abbott from Lincoln University is the lovely but lonely petunia in a very ugly onion patch presenting a paper in the contract on wool.

Women in Agriculture

Let me trawl through a number of newspaper articles that have caught my eye since I decided to broach this topic with you. Recognising that women have taken a greater role in decision making and running the farm, Savage (2006a) reported that Landcorp - yes the Landcorp of the Landcorp Lecture fame - has a woman running their biggest deer farm. *Straight Furrow* ran a series of articles called "Heartland Women" in March of this year (Brown, 2006a; 2006b; Savage 2006b; 2006c; Smale 2006a; 2006b; Straight Furrow 2006a; 2006b; 2006c) and almost all the articles were about women who had won an award from "Rural Women New Zealand", and all of them had some caring and community spirit to them. There is no such thing as "Rural Men New Zealand", it is called "Federated Farmers" and the president Charlie Pederson says there is no point wasting resources on duplicating effort so Rural Women New Zealand will take the lead on education, health, social and land issues (Straight Furrow 2006b). So essentially they will gather the women and children ready to flee as evolution taught them. Federated Farmers will help farmers in the business of farming, which lately seems to have been resisting microchips in dogs and fart taxes and generally banging heads with opposing forces when their testosterone levels rise.

Then there is a whole heap of women's field days all over the country, where women get to learn about farming (Riddick, 2002). Most of the time, the attendees learn about farming or farm issues from other women. In fact I think it would be fair to say that our own Annette Litherland had a bit to do with setting that up with the help of the Sustainable Farming Fund (Sweetnam, 2002). AND who better to give Sustainable Farming money to than women. Men, like my brother, are not really that interested in sustainability, they focus on development and when it goes bung and

washes out to sea, women come along and plant some trees to stop it.

The pendulum swings

I was once a member of the panel who selected Summer Scholars for the Lincoln campus and I commented to the chair, Jacqueline Rowarth, that she must be pleased to see so many young women doing so well at University and being more competitive at receiving scholarships than males. However, it was quickly pointed out to me that that was simplistic male thinking and the reason there were so many women was that the young men all went off to get better paid jobs during their summer break. The fact that these jobs involved lifting heavy things or driving big machinery was apparently not relevant either. Jack, as we who know her lovingly call her, was exasperated by the lack of women in Agricultural science and reported (Rowarth, 1998) that while more than 50% of all University graduates were women, less than 30% of graduates from Agricultural courses were women and they ended up with worse pay than men! This is old data now and one wonders where it has evolved to. Female vets now outnumber males by three to one at graduation (Scott, 2006) and apparently that is the reason there is a shortage of vets in rural areas. Female vets leave the veterinary profession earlier than males. If they want to have a family they leave the practice or they come back part time and that apparently leads to inefficiencies because ... well, reading between the lines, they let their family get in the way of their jobs! Worse yet, males see the profession as financially un-rewarding so they choose not to do it and that has opened the doors for women.

I have been to a place that put me way out of my comfort zone. This was in meetings at the University of Otago. It was during my period of renaissance when I got to be an external supervisor to some of the loveliest scientists I have ever worked with. Raechel Laing is the Professor of the Clothing and Textiles Department, and I had the privilege of working with Stella Lange and Shani Gore. Stella did a PhD, and went on to complete an AgResearch Post Doctoral Fellowship and Shani completed a Masters. Shani went on to work as a Research Fellow on a big project in wool using Merino investment, but had the good sense to find a different supervisor. I was thrown into a setting of all women at Otago University, better looking and smarter than me. As I established earlier, being outnumbered was pretty familiar territory, but the thing that had changed was that despite the outnumbering I was accustomed to people listening to me and paying attention to me and not arguing with me. At Otago University, this age old

tradition went bung. There was no testosterone advantage, and the women did not simply gather the children and flee, they stood their ground to do battle with me. Maybe a more manly man would have held his ground but not this shrinking violet! That is where I learned about the “Ball burst technique”, an eye watering name for a test that simply tests whether a piece of leather could be fashioned into the toe of a shoe or not, and is recorded in the British Standards. I got my revenge by making Stella go to the Deer Slaughter Plant with us to record the ear tag numbers as the dead deer came out of the bottom of the “knocking box” to have their throats cut and be skinned and disembowelled by a room full of rough looking men. Out of that interaction though, we ended up with three journal publications that I am very proud to be a co-author on, and they were actually in very boring physics about how stitching puckers, how thick and thin bits of leather can support their own weight before drooping and how much pressure leathers can take before they snap! Added to those publications there is this hitherto unpublished account of the sociological scarring of yours truly. I was talking on the telephone to Debra Carr from Otago recently and she said "About 5% of our students are male and we love to have them because they are generally more into the maths and physics." This shows yet again how women like balance and community.

What about wool?

I have given you the statistics for AgResearch, but there are other organisations involved in wool research and development. I have some friends at the former Wool Research Organisation of New Zealand which is now called Canesis, and is basically charged with looking after the wool industries needs and roughly speaking beyond the farm gate. A quick survey of the phone list, with some debate over names that could be male or female, around 40% of the staff there are women. A quick look at an Annual Report tells you that one of every four Research leaders is female, but as you come to Senior management there is 1 woman and 9 men. That woman looks after Human Resources! Perhaps the glass ceiling does exist?

Down on the floor of the shearing shed we can find Mavis Mullins, part of the backbone of the Paewai-Mullins shearing business. She is also a board member for a couple of companies, including Landcorp, but started Wools of Aotearoa due to her belief in wool. Mavis gets a buzz out of taking on youths with a few rough edges and watching them grow and learn a work ethic that sets them up for life (Smale, 2006b). There are women shearers too, and Emily Woodward is just

one whose story was told by Brown (2006c), and lo and behold, there she is raising money for a charity by shearing. Wool handlers on the other hand are most often females. In my own personal bias I think that is about the balance there should be. Shearing is hard physical work requiring focus, wool handling is hard work but it takes skill and attention to detail and requires multi-tasking. Debate it with me if you will, it is my opinion that one suits men the other suits women and as a team it works well.

The fashion designers that are male and not gay, come up with things like Swanndri or Swazi that you might wear when you shoot a duck or a deer. Women are basically responsible for the romantic stuff. Indeed, Trelise Cooper, took her husband’s name when they got married because “I’m old-fashioned” and “It’s become my name [Cooper] and also, my brand” (Murray 2005). Cheryl Eldridge at Stansborough Fibres breeds her own sheep called ‘Stansborough Greys’, and turns their fibre into fabrics that clothed the “Lord of the Rings” cast and filled the real wardrobe part of the “Lion, the Witch and the Wardrobe” in “The Chronicles of Narnia”. Fear not that the Gotland Pelt was introduced to New Zealand because it had a good pelt for making double-face leathers for Russian hats and coats. Let us not worry that the wool was incredibly variable in pigmentation, length, strength, medullation, too coarse and lustrous to spin into a yarn and was just plain the wrong place to start from. Cheryl just went about and did it aided by her family, who coincidentally and fortuitously included engineering husband Barry. Peri Drysdale turned a backroom cottage industry of a handful of at-home hand-knitters, through a conglomerate of untrustworthy knitting machines that worked 23/7 and needed fixing late at night for the other hour, and on into a million dollar label like *Untouched World*. Strikingly similar in this case, Peri was also capably supported by engineering husband Alec. Peri is deeply interested in making products that people want from an *Untouched World*, but she has trouble sourcing the fibre to do it with because the whole world of wool from her knitting machine back behind the farm gate is filled with Tool Time Tim Taylor clones who just want bigger, faster, better and more money!

The future for wool

I went to a meeting about the Wool Industry Network on April 10th 2006 in Christchurch. This is being set up to cure the ills of the wool industry – once and for all. Let me see there was me and about forty other fat balding jokers there and just three women. Apparently, sports jackets are back

in fashion, because I was wearing one and most of the rest of the jokers, with a couple of older oldies wearing two piece suits. Only three were women. I can name them. Peri Drysdale whose name comes up a lot, Claire Mulcock who is the R & D manager for Merino Incorporated and Gretchen Kane a marketing manager for Merino New Zealand. Only three were women! I spoke with Gretchen, because the other two get sick of me. Without my usual coercion, Gretchen offered, that women do all the purchasing of carpets, upholstery, interior textiles and apparel. Wool and leather go into garments, upholstery, carpets or curtains. In my experience women buy all the big ticket items, and then they get final say on which tie goes with which jacket on us men. That is the way it is. That is the way it has been for a long time. Basically, this mythical beast we call "the consumer" is a lady. Women make most of the decisions and spend most of the money on these items. Men went out to hunt, that is why men are on the boards of meat companies and the Meat part of Meat and Wool New Zealand. Women stayed safely back at the cave and spun yarns out of dingo feathers or something and tanned skins of antelope and prepared antipasto. Elizabeth MacArthur bred the Australian Merino while hubby was off in the UK gallivanting around pretending he knew all about it. Real New Zealand Men bred Romneys for fat lambs, and that is the simple reason why you wouldn't wear Romney wool next to your skin. If women had bred Romneys they would probably have wool like Stansborough Greys!

From National Geographic I learned that the designs on the front of Irish fishermen's jerseys were used to identify the bodies of drowning victims. This was in days of yore when men would sail out in un-seaworthy vessels many moons before marine forecasts, wearing a jumper knitted by their wife with a special kind of pattern down the front that was unique to their village or family. When they did something stupid and Mother Nature claimed them to remove them from the Darwinian gene pool, then at least their wife could recognise them when the jumper washed up on the Celtic coast with that pattern she knitted long before forensic science came along.

Females are into fashion, but it seems they are not represented in great numbers in the research that applies to fashion. My contention is that the rudder of this ship of fools should be wrestled off the men who seem intent on hitting the sand and washing up dead in a nice woolly cable-knit sweater. A woman should take the helm and sail us into different waters capably assisted in a relationship with an engineer, though it is not necessary they should be wed. If they tell us not to

wear that tie with that jacket, men do it. If they tell us to make some wool fabric that is more "boofy" and "fluffs up around the frills" then men try to create it. For a start, if we men don't they are just going to nag us or say they told us so when it all goes bung, and anyway there must be some boring principal of physics that some male git can get off on and change the structure and function of a fabric to give it "boofiness." It will probably involve fibre diameter, bulk, yarn twist and a jolly good dose of maths, and it will probably end up with a more scientific name like "anti-gravity factor gamma".

Post Script

There have been some changes that need a mention to put things in perspective for publication of this article in 2007.

For those who were not there, I asked the crowd to sort themselves into male and female and then two subsets again over and under 45 years of age. There were no female NZSAP members over 45 present and only two distinguished guests stood in that subset. There were many males over 45. There were a few less females than males in the under 45 category. Perhaps gradually, when all our well respected (male) peers have retired, there will be a more equitable balance leading the institutions that compose the Animal Production Society, and more harmonious research institutions like the University of Otago example will evolve.

Immediately after the presentation I was spoken to, in private, by several people.

I received criticism from a confidential source who thought it was very "blokeish." I plead guilty Your Honour! That is the best I can do, and it gives context to the problem.

Simone Hoskin thought that the gender bias was worse in Agricultural and Veterinary Sciences at Massey University than the data I presented for AgResearch, while Jane Lacy-Hulbert thought there was better female representation in Dexcel.

Both Jane Kaye (Dexcel) and Ric Sherlock (Massey University) asked "What was the point of your talk?" A fair question, so in this written version I will answer that. I used to think I knew all the answers, and typically like Tool Time Tim Taylor, how to fix things. I have given parts of the presentation to groups of females involved in science on previous occasions. In brief, let us just say those audiences agreed with the data, but not my suggestions for the future, after their gender fought so hard to get where they are. So I deliberately left the topic hanging. I am a neo-New Zealand man from an Australian culture. You don't need me to provide a solution because it would be wrong beyond reality. I reviewed the problem and

posed the hypothesis. It seems quite clear to me that there are plenty of women graduates and there have been for the whole of my career. I see two paths that women can go by. They can continue to struggle under a system made by men for men until 2050 when Peter Lawrence says the gender balance will come right, or they can design a system by women for women and speed that up a bit.

Canesis was purchased by AgResearch in January 2007 and the staff have become integrated together, with little change to the gender balance.

Sadly Johanna Abbott moved on from Lincoln University and wool. Thus, the leaky pipeline still haemorrhages talent. I met the candidate to take over her crown of lonely petunia at the conference, Erica van Reenen from Massey University who is doing a PhD on Merino wool. I received another email from Catherine dated January 1st 2007 where she has also moved on: "I just wanted to let you know that today is my last day with AgResearch, Ruakura ... I made the difficult decision to resign from Ruakura for a number of reasons, mostly family oriented." She has moved on to new pastures but is still in research because she adds: "I am doing more of the Zoo and Conservation based reproductive work that I have been involved in over the past years (rhino, tapir, tiger, cheetah reproductive monitoring) which I really enjoy, very simple science which can have a real impact on management of animals in captivity." Maybe women, like Catherine, will always be drawn to family and research on saving and preserving things while men, like me - or better men, will forge on with the science of developing bigger, faster and more destructive things. I tend to agree with Peter Lawrence and Susan Greenfield, if we keep running a system designed by men for men; we will maintain the selection in favour of men.

Most importantly, my wish came true and the Wool Industry Network appointed a female chair, one Sue Sheldon (Williams 2006). Women do networking so much the better.

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