

A young child with dark hair and glasses is sitting in a grey armchair, reading a book. The child is wearing a brown long-sleeved shirt and blue jeans. The background is a dark grey wall with a decorative molding. The lighting is dramatic, highlighting the child's face and the book. The overall mood is quiet and focused.

WHO'S BRAINY NOW?

DONNA CHISHOLM IS *NORTH & SOUTH*'S EDITOR-AT-LARGE.
PHOTOGRAPHY BY JANE USSHER AND ADRIAN MALLOCH.



+ Science

You're a middle-class Pakeha parent. Your kids are bright and you encourage them to study. Then the Asian students in their class leave them struggling in their wake. **Are they really smarter? And if so, why?**

Donna Chisholm talks to world-renowned Dunedin researcher Jim Flynn, who has made a career studying IQ and what shapes it.

Otago University intelligence guru and emeritus professor Jim Flynn relates two telling stories to explain Asian academic prowess.

The first is about the black doctor, the Jewish doctor and the Chinese doctor in a posh Washington DC suburb. The black doctor's kid opens his schoolbooks and his father says, "Let's go shoot some baskets behind the garage." The Jewish doctor screams at his kid until he studies. The Chinese kid sits down and opens his books without being asked.

The second is about the Irish boy and the Chinese boy who qualify for an elite university in a distant city. If the Irish lad's fiancée wants him to stay home, he may do so. The Chinese youth gets a new fiancée.

The legacy of that cultural heritage, says Flynn, means that in today's classrooms a Chinese kid can concede seven IQ points to a European kid and still match him for school grades and achievement scores.

And the gap does not close in adulthood. "If you look at the occupational profile of

GETTY





The Chinese had a tremendous work ethic – the Irish had cheap potato whisky and an alcohol problem. So when they came to America, even if they were of equal intelligence, who was going to get ahead?

Chinese and white Americans, you'd swear the Chinese were 20 IQ points brighter. They capitalise on their human capital. If you look at Chinese kids with an IQ of 93 or above, 80 per cent are in professional, managerial or technical professions. If you look at white kids with an IQ of 100 or above, only 60 per cent are. If a white kid gets a good scholarship he may go off into a commune and live on beeswax; a Chinese kid won't."

Although Asians make up just under 10 per cent of the New Zealand population, they account for around 30 per cent of the annual intake at Auckland Medical School.

The usual explanation for their scholastic success is hard work, hard work and more hard work. But it's not that simple. Asians have historically outperformed their IQs, dragging up the IQ of the next generation. Today, based on American data, Chinese children are on average about three points higher in IQ because they are overwhelmingly from professional homes – but the educational overachievement came first.

Flynn, descended from an Irish-American father who, with his brothers, went into factory work before the age of 14, compares and contrasts the history of Chinese and Irish Americans. At the time of the great famine, Irish farms were about one-sixth the size of Chinese farms – to stay alive all the Irish could do was put the land in potatoes because they could live on them and little else. "They didn't even learn how to farm."

The Chinese had a tremendous work ethic – the Irish had cheap potato whisky and an alcohol problem. So when they came to America, even if they were of equal intelligence, who was going to get ahead? An abstemious, hard-working, experienced farmer or an Irish peasant who knew so little that if he encountered a pound note he'd take it to a pawn shop? "There's no mystery in Chinese Americans – you don't have to look at their genes or innate intelligence, you just have to look at the historical conditions that produced the two groups."

JANE USHER

And yet the same tradition which emphasises authority, hard work and learning means many Asians "have a hard time thinking outside the square".

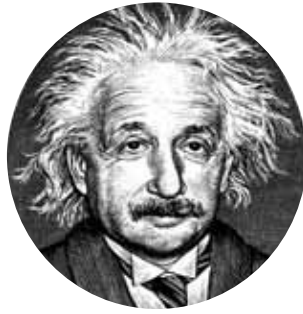
"That's not true of many Asian scientists who make wonderful original contributions, but they are much more common on the second level than on the absolute top level, and that's in a sense because they're over-performing; they're exploiting their intellects to the maximum. They're not really people who are going to bring a sea change."

Asians typically excel at music and maths because they are playing to their sociological strengths. "When they came to [Western cultures] they were handicapped linguistically while musical notation and maths are international languages so it was natural for them to go in those directions." By the third generation, though, more Asian New Zealanders are being drawn to poetry and literature.

Jewish people, says Flynn, are probably over-represented among the great minds of the 20th century (think Freud, Einstein, Kafka), partly because of the enormous, unrelenting pressure towards cognitive achievement in classical Jewish culture.

"A poor Jew who came to New York and could hardly speak English would take a subscription to the *New York Times* just to have it around the house for his kids. If a Jewish kid made a football team his parents would go crazy and say, 'Are you going to get brain damage? How are you going to get into medical school?' An Irish father would be over the moon."

While Asian students have reaped the academic benefits of their distinctive subculture and work ethic, Flynn, now 76 and a grandfather, says the efforts of some parents to "hothouse" pre-schoolers, by teaching them to read at three or four, are "stupid" and "madness".



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Certainly he and his wife never did it with their two kids – and their son is now a professor of pure maths at New College Oxford, their daughter a clinical psychologist in Auckland.

“If you’re an academic family you can teach a child to read at four with great effort, when the child would learn quite easily at five or six. So what’s the point of driving the kid crazy when 18 months later they’ll learn it easily? What are you trying to prove except that your child is very bright? They’d make up the ground when they went to school anyway, and if they’re bright they’ll surge ahead of the other kids by the time they’re six or seven.”

An academic home, he says, is one in which a child hears parents using a vocabulary of 2500 words instead of the 650 they might be

exposed to in an under-privileged home. It’s a home likely to be dominated by adult conversations, as opposed to child-dominated conversations in a one-parent family with several children. In a lower socio-economic home, a mother might show a child a book, and when the child says “horse” she’ll say, “Yes, that’s a horse”.

“In an academic home, she’ll say, ‘What noise does a horse make?’ The kid will pick up many advantages without you sitting down and teaching him to read before he goes to school.”

Likewise, says Flynn, there’s no advantage to a parent knowing a child’s IQ. It might tell you by the age of 12 whether he could do a PhD at Harvard, “but what use is that to a 12-year-old?”

Despite decades as the country’s pre-

eminent intelligence researcher, Flynn doesn’t even know his own IQ – although as a teen, his entry tests to the University of Chicago put him in the academic elite and, at 17, he became one of only four students out of 600 to earn his first degree in just one year.

Though an IQ test can be useful when a child is underperforming – and emotional and other problems are eliminated – it’s unlikely classrooms are littered with potential stars whom the system is failing. Very high IQ, in other words, will usually out, assuming a child isn’t “a psychopath, born in a hovel in India, brain damaged in a car smash, or derailed by emotional problems”.

A child with an IQ in the top two per cent, say 130 and above, is likely to find they’re superior at some subject and enjoy it because of that. If they’re in the top 10 per cent (120 and above) they’ll probably find a subject they do better than most.

“That doesn’t mean a child with an IQ of 100 may not be extremely ambitious and motivated and also succeed [at a high level]. But they probably need good luck, such as a teacher who encourages them, or to get in with a set of people who are conceptually alive because peer group expectation is a strong influence. Someone of only slightly above average intelligence in such a group automatically tries to achieve the group norm and they often do.”

High school advisers frequently see teenagers who haven’t capitalised on their potential, says Flynn, but a child who simply knuckles down and studies hard may not achieve as much as one who changes their peer group to a more disciplined and challenging bunch of scholars. But, he warns, “very few teenagers can be expected to introduce such a social revolution in their lives”.

Epsom Girls Grammar School, Auckland.





JANE USHER

At 76, Professor Flynn keeps his body as active as his mind. A competitive age-group athlete, he trains three times a week.

So how much of IQ is nature, and how much nurture? Conventional models, says Flynn, take 75 per cent as the heritability of adult IQ, but he argues that the direct effect of genes on IQ accounts for less than 40 per cent of the variance. The importance of what a child gleans almost osmotically from his environment was reinforced by a mid-1980s study by American psychologist Elsie Moore, who compared the academic performances of two groups – adopted black children brought up in well-to-do homes by white and black mothers.

When tested at ages seven to 10, the white-adopted black children had a mean IQ 13.5 points higher than the children adopted by black lawyers and teachers.

While numbers were small, Flynn says

the results suggested that the black parents “simply do not surround their children with the same kind of cognitive environment that the white middle class establishes”. Moore also observed the mothers’ interaction with their children while they helped them try to master a mental problem. “Although both sets of mothers had the same number of years of education, there was a sharp contrast. White mothers tended to smile, joke, give positive encouragement and applaud effort. Black mothers tended to frown, scowl, criticise and express displeasure.”

IQ testing, says Flynn, provides a window on social trends that might otherwise be overlooked. During study at New York’s Sage Foundation last year, for example, he compared vocabulary gains since the 1950s for American children and adults and found the

children had made minimal gains of about four points while the adults had gained 17. “So today, when you’re raising your child, there’s a much bigger gap between your vocabulary and his.”

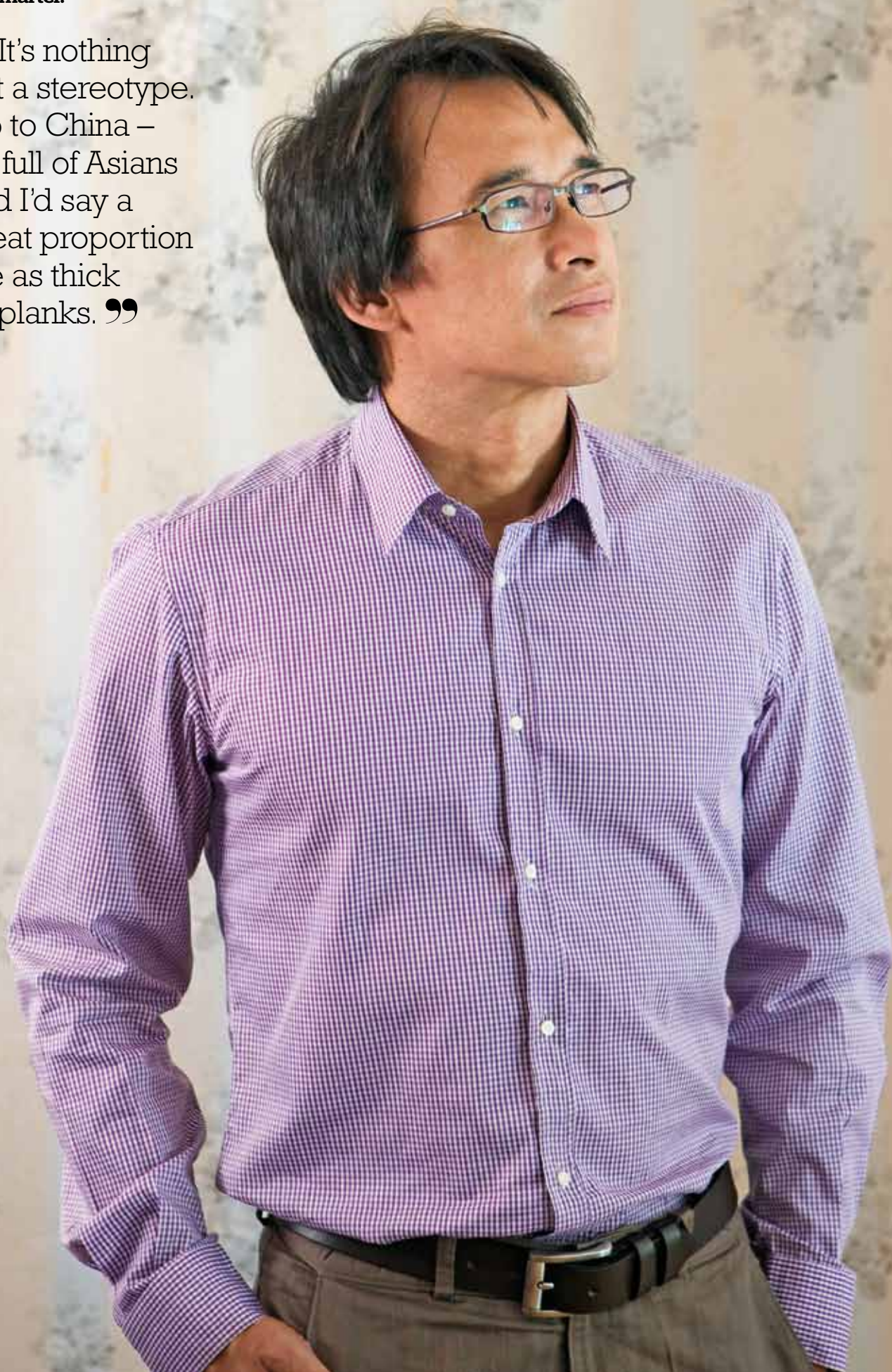
Other data showed the passive vocabulary of adults and children (the words they understood) had not diverged, although the active vocabulary (the words they could actually use) had.

“So our teens can still understand us as well as they did 50 years ago, but they can’t mimic our vocabulary nearly as well. Something in the teenage subculture is setting up a barrier to communication. We all know that since the 1950s, teens have developed their own slang, almost their own dialect.”

The gap isn’t a permanent tragedy, says Flynn, given that a quarter of it closes if the

Raybon Kan doesn't buy the idea that Asians are smarter.

“ It's nothing but a stereotype. Go to China – it's full of Asians and I'd say a great proportion are as thick as planks. ”



IQ KAN

Asians in New Zealand aren't smarter, says Auckland comedian Raybon Kan - they just have more drive.



here in the first place. "It comes from the feeling that they are totally screwed – where the hell are we, everything's in another language, we have a lot of catching up to do. It's like New Zealand's brain drain but in reverse – the people who wind up living here have already had to sit an exam. They've had to demonstrate the know-how to find somewhere better to live, somehow get on a plane with no money, arrive here without the language, and get by.

"The sample who make it here are plainly more driven than the average bear. Just like Kiwis who go abroad."

Counter-intuitively, kids whose first language isn't English also have an advantage. "You've had to learn a language and that's gonna add muscle to your brain."

While Kan was born in New Zealand, his parents came from China with three children and no English. They ran a grocery store and he says they were too busy with the shop to force him to do his homework. "They had no idea how anything worked here. I could actually lie to them, frequently telling them I'd been sent home from school that day, to watch TV."

While he remembers excelling at spelling ("to this day, when I write, I disable the spellcheck"), science left him cold.

In School Certificate, he scored 97 per cent in maths and French – an obsession was to score 100. "Nobody in our class got 100 in School C maths and when the results came out, we were all ringing each other trying to figure out which question we possibly got wrong.

"We were astonished. I considered going for a recount. This is what we were like. We were such nerds, it was hilarious."

At lunchtimes, the kids would have races to see who could solve the Rubik's Cube fastest – he'd cheated by learning how from a book.

University brought his first taste of failure. "I think I got the top mark in first-year philosophy, which came down to being good at arguing. Then I failed my second year in philosophy, when I did Introduction to Logic. Not even Logic. Introduction to Logic. I never went back to philosophy."

He doesn't buy the idea that Asians are smarter. "It's nothing but a stereotype. Go to China – it's full of Asians and I'd say a great proportion are as thick as planks. Probably a good billion. Many of them don't even speak English."

child goes to university and the rest disappears when he's in the workforce.

This work follows data released last year which showed a slight IQ regression among British 14- to 15-year-olds – material at odds with the "Flynn effect", the phenomenon of successive IQ gains over generations he identified and measured in the early 1980s.

"That's interesting sociologically because you think teenage subculture may be biting in Britain in a way that's counterproductive. The kids are fine until they hit that subculture and then they're actually not as good at problem-solving as they were a generation ago."

In Scandinavia, too, IQ tests given to military entrants at 18 are showing a levelling off or even a slight drop. Flynn concedes the gains he identified must diminish over time as the forces that have driven them since 1900, such as more formal education, reach saturation point. Compared with our ancestors, we are all now seeing the world through the scientific spectacles that allow us to apply logic to the abstract.

"If you asked a kid in 1900 what dogs and rabbits have in common, they'd say you use dogs to hunt rabbits. Today we say they're both mammals. We've been exposed to a way of thinking that says you understand the world by classifying it. Our ancestors lived in a world that you understood by splitting – the important thing was to know the difference in things. To know that of six kinds of dog, which one was good for hunting, which was a guard dog and which was a bird dog. A kid today, asked what apples and bananas have in common, would say they're both fruit. A kid in 1900 might say you have to climb a tree to get bananas and apples usually fall out of trees."

Flynn is convinced that even today's top students are disadvantaged by reading good literature less often than they did 30 years ago. "I take them to the pub and say, 'Who's your favourite novelist?' and most of them give airport trash. They're not reading Huxley, they're not reading Faulkner, they're not reading Jane Austen. Partly it's a more visual age. We didn't walk around with music plugged into our ears all day; we didn't watch TV and listen to iPods all evening; we didn't surf the net."

A Depression-era baby, Flynn was born in 1934. His father had gone to work in a bed-spring factory at 13 – the destiny of all five brothers in the family – but then became an actor in a travelling family troupe performing in Missouri.

Comedian Raybon Kan cemented the "brainy Asian" stereotype when he outsmarted a studio audience in 2003 on television's intelligence show *Test the Nation*, scoring an IQ of 128. "I remember that because it meant I didn't qualify for Mensa. Didn't want to join anyway. Do I sound bitter?"

But, he says, having stage experience which enabled him to master gameshow nerves probably helped his score. "Not being freaked out by the studio and cameras, you buy time. Any question with words or arithmetic, I could see quite quickly – and that gives you confidence – but anything with a drawing or a shape, I'd have to do in little steps, often mumbling to myself."

He says knowing certain tricks to IQ tests can add 15 points to your score. "So that would suggest IQ isn't something innate or genetic or permanent."

The superiority of Asian – particularly Chinese – students in the classroom may stem from the drive that brought immigrants

Though he had little formal education, Flynn's father became a self-taught journalist and rose quickly to become managing editor of the *New York Herald*, but he lost his job in the Depression. "He had a huge vocabulary," Flynn recalls. "He could do the *New York Times* crossword in ink."

Flynn and his brother had natural academic talent, winning school maths prizes (his brother Joseph, 87, is an internationally renowned chemist), and regularly topping their classes. His father, though proud of his sons' achievements, felt threatened by them, says Flynn. "He was afraid we would despise him for his lack of education. He used to brag about our achievements but you never wanted to tell him he was wrong about anything and say we knew because we learned it at university."

Raised a devout Catholic, Flynn abandoned his faith at the age of 11 when he won an encyclopaedia in a prize at school, learned about evolution and decided the notion that God created the world probably wasn't true. "I was just in time because they wanted to send me to a special high school for priests when I was 12."

To prepare for my interviews with Jim Flynn, I completed a series of online IQ tests which gave widely varying results. In one, I scored 79, just this side of moron ("borderline intellectual functioning"); in another 128 ("very superior intelligence").

I asked the man who'd never taken an IQ test what this could possibly mean. The tests I did worst in were dominated by the interpretation of patterns and mirror images. "That's the one area in which women do have a hard time." Typically, he says, women outscore men on the verbal questions, are the equal of them in most other sections but are very bad on rotating images in space.

"It may be that for thousands of years men had to plot territorially to hunt and women didn't. Or is it something in our upbringing of women that just makes them uninterested, I don't know. It doesn't even seem to correlate with mathematics very much. Jewish Americans also have that type of deficit and they do pretty well in American society."

Intriguingly, he's also compiled data that shows while women were once behind men in IQ testing, results from six nations on one intelligence test of abstract reasoning show they now mostly equal or slightly exceed men.

Flynn concludes that changes in the female subculture are improving its IQ. "Middle-

If there's one thing I've never done in my life it's to rank people by their intelligence. You interact with people as people. I mean, who would be sitting around thinking, 'I wonder what their IQ is?'"

class women often used to drop out of university when they got a good husband."

A moral philosopher, Flynn describes the IQ debate as a constant and unwelcome companion in his life, "like living with an uncongenial spouse from an arranged marriage".

"I didn't ever want to get into psychology. My specialty is how you defend humane ideals, and how you can use logic to refute anti-humane people like Nietzsche. It's important to know how to use logic and evidence to refute racists – that was what got me into the race and IQ debate." Today, he says, he gets an "enormous" international hearing for anything he does in the field of intelligence, but "I have to work to get a hearing in political and moral philosophy".

Flynn's seminal 1980 work, *Race, IQ and Jensen*, rebutted the arguments of Californian psychologist Arthur Jensen, who said that, based on IQ tests, whites might be genetically smarter than blacks. Thirty years later, the fight rages on, though Flynn's argument that class, not race, can determine IQ has won widespread acceptance.

"Once you're considered sort of the champion of the notion there's genetic equality for races, it's hard to dip out because the people on the other side keep writing books, then you've got to reply. Then they reply to your reply and you get trapped."

It was Flynn's trenchant opposition to racism that brought him to New Zealand, after he was fired from two university teaching jobs, in Kentucky and Illinois, in the early 1960s. In Kentucky, he says, the university vice-chancellor's political aspirations made it unpalatable for him to have Flynn – the

"too friendly to blacks" chair of the Congress of Racial Equality – on his staff. In Illinois, he says he was "fired for being a socialist" after giving a speech for socialised medicine. With wife Emily, whom he met on an anti-racism picket line in Washington DC, Flynn came to Canterbury University in 1963 before heading to Otago in 1967 to take the foundation chair in political studies.

His mental and physical firepower shows no sign of abating. A competitive age-group athlete, he trains three times a week and jogs six miles (9.6km) on Saturdays. He can cover a half-mile in close to three and a half minutes and beat out-of-shape 30-year-olds.

Though IQ declines with age, he says he's much more prolific than he used to be, "but I'm mining ideas I've had throughout my life". He will keep working, he says, "until I lose my curiosity".

He's keen to further investigate a finding he made last year that an older person with an IQ of 130 will maintain vocabulary better but lose analytical skills more sharply compared to someone with an IQ of 100.

"Is it brain physiology or is it environment? Is it that the part of the brain that deals with analysis begins to decay in a way that no amount of exercise can impede, and therefore we're all going down to zero – which means people high up have further to fall? Or is it that when people with analytical minds retire, the contrast between retirement and work is greater for them than the average person who is thinking in retirement at pretty much the same level they always did?"

Ironically, for someone whose life work has revolved around IQ, Flynn regards it as both supremely important yet in many ways, irrelevant. Having rejected an approach from Mensa, he shares British philosopher Karl Popper's attitude to the group: "I think it's silly. It's an ego trip. Popper said he had many intellectual failings but he'd never been stupid enough to want to belong to a group whose sole satisfaction was how intelligent they are."

The most important tests people take are the ones that measure academic achievement, rather than IQ. If you know your IQ, he says, don't let it limit you; keep trying those algebra problems, for example, until you reach your limit – don't not try them because your IQ suggests they're beyond you.

"If there's one thing I've never done in my life it's to rank people by their intelligence. You interact with people as people. I mean, who would be sitting around thinking, 'I wonder what their IQ is?' It seems to me a disease like joining Mensa." +

