



# FIONA HOBAN

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## Belief really is key to change

They say if you're told something often enough you'll eventually believe it. Which would suggest that it's important to be aware of the kind of stuff we're told.

If you were told often enough that you're no good at anything, you'll eventually believe it. And if you believe it, then that is how you will behave. In essence, you will present yourself to the people that you meet, to the work that you do, to the places that you go to, as someone who is no good at anything.

Of course, people tend to treat you in the same way as you present yourself to them. So it's quite likely that people (and life in general) will treat you as if you are no good at anything. This reinforces the original belief and life becomes a self-fulfilling prophecy.

We often make the mistake of treating a belief as if it's a fact; like it's 100% true and accurate. We can be reluctant to acknowledge that certain beliefs are just that – beliefs.

No matter how strongly we hold a particular belief, it can always be changed; it can be modified, revised and even rejected. But changing a belief can be hard to do and is usually strongly resisted.

It is incredible to think that when Copernicus (below) wrote down his discovery that the earth goes around the sun in the early 1500s, it was violently opposed by the Christian churches for some 300 years!

When enough concrete evidence is produced to contradict what we believe to be true, the belief can (slowly for some) be overturned. Mind you, for some of us, no matter what evidence is produced our deeply embedded belief cannot be uprooted.

Anthony De Mello in his book *Awareness*, tells a funny story about a grandson who visits his grandfather after a lapse of some years.

"Michael, you've changed!" she exclaims. "You used to be taller, and slimmer for that matter. And your hair – you seemed to be fair!" Her grandson replies: "Grandma, I'm not Michael, I'm Peter". "Gosh" she says, "you've even changed your name!"

Our belief systems – what we believe to be true about ourselves, other people and the world around us can often be quite rigid and limiting. It's a great practice to experiment with relaxing our rigidly held beliefs.

Rather than stating things as "fact", state them as opinions that allow for flexibility using phrases such as "I could be wrong but ...", "It's my belief, and I suppose it is only a belief, that ...", "The way I see it at the moment is ..."

These phrases remind us that we do not own the absolute truth. They also open us up to considering other people's beliefs that may be contrary to our own.

This, in my humble opinion, is a very good thing indeed.



"There is no single magic bullet that's responsible for health in the long-stay situation. What we found was that people in the community had a diverse diet and a diverse, healthy microbiota. People in long-stay residential care had a much less diverse diet and a less diverse microbiota."

"Humans developed gut microbiota over tens of thousands of years of co-evolution, that helped them to scavenge nutrients from anything that was going. That microbiota also learned to talk to the body and help the immune system to not develop auto immune disease like Crohn's disease.

"Fast forward to the present and we're eating pizza and swilling down sugary fizzy drinks all week, and then eating big Sunday dinners. Then we get old and go to hospital or into residential care and we have things like tea and toast or semolina pudding. And maybe not much else.

### DIABETES EXPLOSION

"Human gut bacteria were not developed to survive on a highly processed Western diet – look at the explosion of diabetes and autoimmune diseases, even in developing countries now.

"In old age, on a diet of tea and toast, what's left of the gut microbiota can't make all the necessary molecules it's supposed to be providing the human body with on a restricted diet like that.

"The moral of the story (of this research so far) is that you need lots of different healthy food ingredients in your diet to stay well. There is no new message on the nutrition side – we already knew that's important.

"What we didn't realise is that a lot of it (the food we eat) works because it programmes bacteria in your gut to do what's required for you to stay well."

At the two extremes of life – babyhood and old age – the gut bacteria are in chaos, the UCC scientist explains.

"You are born with no bacteria at all and you acquire them from your environment in the first couple of weeks and months and it stabilises after a year.

"For most of your life your gut bacteria are pretty much all the same unless you get IBS or Crohn's disease or ulcerative colitis, and other diseases are being added to this list.

"Then when you get older, your gut bacteria starts to go off the radar, to get wobbly again. We thought we'd examine what's going on there because there were some suggestions that changes in gut bacteria were related to frailty and inflammation. Those were our two main starting hypotheses.

"The first of these, frailty, most people instinctively understand, but which is actually a complex mix of reduced body functions like metabolism, muscle function, and cognitive function. There were plausible links with gut bacteria to reduced function of all of these in older people.

"The second, inflammation, basically means how well your immune system is working.

"Your immune system is only supposed to be turned on when it's required, but in older people you get this chronic inflammation which means that these 'guardian cells' are always attacking things – shooting at shadows really.

"This means that when a real pathogen comes along, like winter flu or E.coli, your immune system doesn't work as effectively.

"This is one reason why older persons are less well able to fight off infections. There is good evidence that inflammation, for example in conditions like Crohn's disease, is affected by changes in gut bacterial populations, so it's logical to try to control inflammation in older people by studying their gut bacteria too." **CL**

Project coordinator  
Dr Paul O'Toole.



### GUT BACTERIA AND OBESITY

How does gut bacteria cause obesity?

There are two theories, says Dr Paul O'Toole.

"One is that you get a shift in the bacteria population and you have

more bacteria that are good at extracting calories from your diet.

"The second is that the bacteria reprogramme your metabolism so that more calories are converted

into fat cells. So even if you're exercising and eating the right amount, you are apparently stuck with these bacteria which are good at doing this – and you don't lose a lot of weight."