

By Dr Tan Poh Kiang, Editorial Board Member

# Thin-slicing

## – The Power of Thinking Without Thinking



Credit: Mr Malcolm Gladwell

In the past month, I met two men born in 1962, the Year of the Tiger, that got me thinking deeply. The first was during an unusual house-call from someone in the neighbourhood where I practise. The second was during a birthday party of my 6-year-old daughter's classmate.

### SLICES OF LIFE

I normally try to ascertain as much information about the patient and the purpose of the house-call before I pack my bag to leave the clinic. The caller on the phone explained that it had something to do with getting a doctor to certify that this patient was unable to leave the house to withdraw his Progress Package (a pre-General Elections monetary hand-out from the government). She said, "When you see him, you will know why."

When I arrived at the gate of the two-room HDB flat, a chubby man dressed in sloppy shorts and T-shirts charged at me as would a guard dog, uttering gibberish phrases to indicate that I was a stranger to him. I was a little taken aback.

Then a soothing voice in Teochew beckoned him to retreat and was followed by the warm welcoming smile of his elderly mother.

"I am sorry if he had frightened you," she apologised.

After politely declining a drink, I began my investigation by searching through her file of medical records and listening to her sad story.

Mr Tham was born to a couple who already had two daughters. In those days when a son was valued more than a daughter, it was obviously a joyous occasion. Then he developed a fever and jaundice in the first few weeks of life. The family was poor and had lived in a kampong on the outskirts of the island. Getting to a hospital was tedious. The infant's paternal grandfather did not think it was such a serious illness that warranted the long journey from their kampong to Tekka where Kandang Kerbau Hospital was. It was not long after the child had recovered from the acute episode that the family realised he was developmentally abnormal. He was brought to consult the paediatrician but the family was told the tragic news that he had suffered kernicterus and would grow up with permanent mental disability.

"I should have followed my own instinct and insisted on bringing him to the doctor when he had first fallen ill. But his grandfather was the patriarch and had the final say in everything in those days," she related with tears.

I noted that he had been through 11 years of special education at Margaret Drive and he was exempted from national service. With more than ample evidence on hand, I promised the mother I would prepare a letter to seek permission for her to withdraw his \$800 entitlement of the Progress Package.

This encounter contrasted with the host of the party that I had brought my daughter to a fortnight earlier. Mr Fong, who is also



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born in the year of the Tiger, is the father of the birthday boy who attended the same kindergarten as my child. He was trim and his muscular torso was bulging through the snug white T-shirt he had worn with jeans. Though simply dressed, his suave demeanour was immediately charming as he showed me around his beautiful home off Holland Road. We had just met, but he was not reserved to share with me how he was lucky as a “late bloomer” to have excelled in his studies in the Polytechnic. Having been granted a PSC scholarship, he pursued his studies to a PhD. He entered the finance world and through a series of brilliant investments became a young multi-millionaire.

It might be simplistic but I became obsessed with the thought that the difference between the two lives might be traced to a bad decision about 44 years ago when a mother heeded the advice of her father-in-law against her own instinct and decided not to bring her infant for medical care.

### IN THE BLINK OF AN EYE

Many who have read Malcolm Gladwell's *Blink* (Little, Brown and Company, 2005) would agree with me that it is indeed a fascinating book that once commenced is difficult to put down. It was my wife's psychology professor who introduced me to this international bestseller about dealing with rapid recognition or snap judgment.

Malcolm Gladwell explains on his website at <http://www.gladwell.com/blink/index.html>, “It's a book about rapid cognition, about the kind of thinking that happens in a blink of an eye. When you meet someone for the first time, or walk into a house you are thinking of buying, or read the first few sentences of a book, your mind takes about two seconds to jump to a series of conclusions. Well, *Blink* is a book about those two seconds, because I think those instant conclusions that we reach are really powerful and really important and, occasionally, really good.”

There are numerous brilliant examples given by Gladwell to illustrate his theory that often, good decisions are made with less data rather than with more. The one that is particularly relevant and intriguing is on Cook County Hospital, West Harrison Street,

Chicago. Yes, you might even recognise it as the inspiration of the award-winning television series, *E.R.*

As a public hospital, Cook County was overwhelmed with more patients than it was equipped to handle. It was estimated that 250,000 came through the Emergency Department (ED) every year! Of the numerous problems Cook County Hospital faced, dealing with patients presenting with chest pain represented one of the most resource-intensive challenges. About 30 patients come through the ED everyday suspecting they are suffering a heart attack.

And these 30 consumed more than their share of beds, doctors and nurses, and they stayed around longer than other patients. Compounding the resource problem was the fact that the treatment protocol, albeit long and elaborate, was inconclusive and inaccurate.

About the year 1996, the Chairman of Cook County Department of Medicine, Brendan Reilly decided to administer a radical experiment. Largely out of desperation, Reilly turned to the research of a cardiologist, Lee Goldman. Goldman began his theoretical development in the 1970s in Harvard Medical School where he collaborated with a group of mathematicians on predicting the likelihood of a heart attack. His algorithm narrowed down to three risk factors that could assist the interpretation of the ECG findings viz. (a) Does the patient have unstable angina? (b) Is there fluid in the patient's lungs? (c) Is the systolic blood pressure below 100? He then developed a decision tree that recommended if the patient got admitted to coronary care unit (CCU), intermediate care or short-stay unit.

Reilly presented Goldman's work to his medical staff and conducted a “bake-off”. For the first few months, the staff would use their own judgment in evaluating chest pain, the way they always had. Then they would use the algorithm, and the diagnosis and the outcome of every patient treated under the two systems would be compared. By now, you would have guessed it - Goldman's reductionist method won convincingly. It was 70% better than the traditional method at recognising the patients who were not actually having a heart attack. As for those serious patients, the doctors managed to guess accurately between 75% and 89% of the time while the algorithm guessed accurately



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for more than 95% of the time! Now, if you walk into the Cook County ED, you will see a copy of the heart attack decision tree posted on the wall.

### **WHEN HASTE DOES NOT MAKE WASTE**

How can decisions that are made rapidly be of any use? Is it not wiser if we consider all the available and relevant information before we make up our minds? Malcom Gladwell agrees, “Certainly that’s what we’ve always been told. We live in a society dedicated to the idea that we’re always better off gathering as much information and spending as much time as possible in deliberation. As children, this lesson is drummed into us again and again:

haste makes waste, look before you leap, stop and think. But I don’t think this is true. There are lots of situations – particularly at times of high pressure and stress - when haste does not make waste, when our snap judgments and first impressions offer a much better means of making sense of the world.”

It appears that when the brain is trained to recognise recurring patterns, it actually performs better when the less important data are taken away. That is what thin-slicing is about. If only on that fateful day 44 years ago, a mother who looked at her newborn child realised that fever and jaundice in infancy were reasons enough to defy her father-in-law, that snap judgment would have led Mr Tham down an entirely different path. ■