Thomas Schelling, the co-recipient of the 2005 Nobel Memorial Prize in Economics Sciences, died yesterday at the age of 95. While not as famous as other Nobel-winning economists (such as Friedman, Stiglitz or Sen), Schelling was a cult figure within behavioural economics and international relations.

Schelling made a number of fundamental contributions to the field using game theory – the analysis of the strategic interactions between people, firms or nations. His ideas explain some of the decisions we make every day, influenced the cold war and can still be found in modern behavioural economics.

But Schelling stood apart from other leading game theorists by developing ideas not based on high-level mathematics but on conceptual thinking and (often colourful) examples that could be easily applied in real situations.

Focal points

Schelling's first concept to enter everyday use was " focal points ". It's the idea that people are uncannily good at coordinating tacitly with each other, even when they are unable to communicate.

For example, let's play the game 'Name a Mountain, Any Mountain'. This is where you and I both name a mountain with the idea being to give the same answer. Now repeat this exercise for a flower, a place to meet in London, or one side of a Dollar coin. You can see my answers here
.

Chances are we got four out of four, despite not being able to communicate and there being countless alternatives. Any of the alternatives would have worked as long as I pick the same as you. So you are outguessing what I guess you are guessing that I am guessing and so on.

Schelling explained our remarkable ability to cut through this problem by using "focal points" – alternatives that are "salient" by being conspicuous, culturally or psychologically obvious. We all

instinctively know which are focal and converge on them.

People play these coordination games daily, such as when choosing a messaging app or bar to congregate at. For economists these are examples of network goods, where consumption gives more value the more people consume the same good. In history, the outcomes of coordination games determined which language, measurement standard, social conventions or traffic rules spread and which died.

The madman theory

Schelling's second key insight made him famous inside Cold War policy circles in the USA. He suggested that in conflict situations it makes rational sense to escalate the stakes to get the other to back down.

Schelling saw nuclear proliferation between the USA and Soviet Union as a game of chicken - two cars drive towards each other and one driver wins by not swerving out of the way of the oncoming opponent. The longer you wait the more the other believes you won't yield.

In Dr Strangelove’s words , "deterrence is the art of producing in the mind of the enemy the fear to attack".

The catch is that such brinkmanship has to be credible and so needs to be backed up with random acts of madness or long-term commitment to not backing down. Chillingly, Cold War US foreign policy doctrines were based on theories like this.

Luckily for us the predicted car crash did not eventuate . Hollywood picked up Schelling’s ideas in Dr Strangelove, a surreal comedy almost too close to home for those who lived through the Cold War. Many states adopted non-negotiation policies towards terrorists and businesses used the madman theory as a cut-price business tactic .

Emergence and experimentation

Schelling's two other main contributions were as unnoticed outside academia as they were influential within. In 1978 he pioneered the idea of micromotives and macrobehaviour – the actions of countless interacting individuals translate into big, global effects that amount to more than their sum. This concept has since become known as "emergence" and fuelled an industry of computer simulations to predict social events like epidemics, bank runs, and man-made climate change (here Schelling was an affirmer).

The need for computers lies in "non-linear dynamics" - each individual's actions affect each other, and so phenomena like tipping points, positive feedback, and path dependency arise that are hard to predict with conventional social science theorising.

Schelling's other key insight into economic thought now reads like social science prophecy. In a little-known passage of The Strategy of Conflict, Schelling complains that the dominance of abstract, mathematical analysis has blinded game theory to the all-important context in which real people make decisions. He suggests economists should use experiments "to yield widely applicable insight".

It took another 40 years for behavioural economics to become an established discipline with experiments as the main tool.

Bringing reality back

The twin ideas of emergence and experimentation influence public life to this day. To change society or avert global crises, one sticking point is the individual. Rather than making costly and hard-to-agree-and-implement, top-down changes to institutions, social change follows from the bottom up when the information and actions of enough individuals are "nudged".

If an anthill results from the few basic rules ants follow, then the shape of the hill can be changed by changing those rules. Behavioural insights units now exist at the level of federal and state governments across Australia, as well as in the

UK
and the
USA
, and in many
universities
.

Schelling will be sorely missed as a champion of bringing reality back into economics while sticking to its characteristic analytic rigour. This is the project of behavioural economics, the study of how people make economic decisions as if their psychology mattered. While Schelling mused that its “success is not assured”, subsequent generations of economists will do their best to live up to the promise Schelling saw before most others in the profession.

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Read more http://theconversation.com/thomas-schelling-the-legacy-of-a-master-strategist-70394