

Monkey Business

Keith Chen, Assistant Professor of Economics at the Yale School of Management, chats with the YER about Yale, prison sentencing, and his latest work with monkeys

INTERVIEW BY COREY LOMAS

How did you end up at Yale?

I started at Stanford University as an undergraduate, focusing on mathematics and philosophy. I wasn't originally a student of economics, but applied very broadly to different graduate schools. I asked myself where I'd be happiest - where I'd find the most vibrant intellectual community - and I decided to do a Ph.D. in economics at Harvard. There I gradually moved away from the theoretical side of economics and now I sort of straddle the line between theoretical and behavioral economics. I would classify myself as half a behavioral economist and half a game theorist.

What has been your experience working at Yale?

This is my second year here. I love New Haven, and the group of economists at the business school here is absolutely fantastic. Academic economists are primarily employed at either business schools or economics departments. Applied economists tend to find themselves in economics departments because they need economics graduate students to help them with their work, whereas economic theorists on aver-

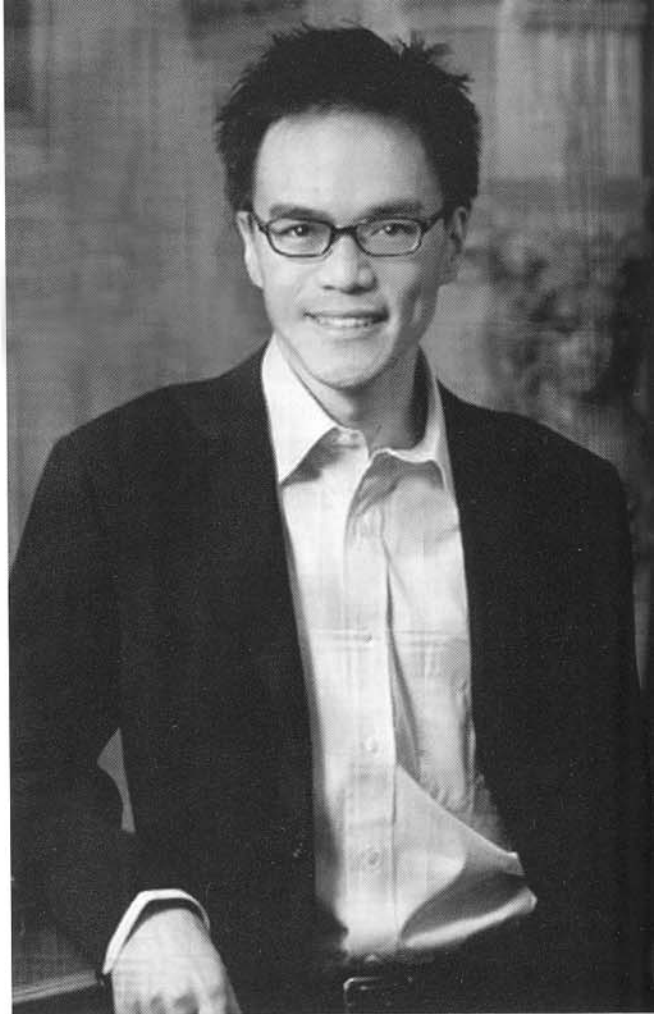
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age are a little more willing to go to business schools. The production of our work doesn't require as much economic grad student input. I really like Yale because we have a very strong economics group, both here at SOM and down the street in the economics department. I also think the environment among the economists at the Yale School of Management is incredibly collegial. They are a really nice and incredibly smart group of people.

How does your research combine behavioral and theoretical economics?

I have done some theoretical work in game theory but I've also been working on two applied projects that are potentially interesting in the short term. First, I do a lot of work with prisoners. There have been numerous studies both by criminologists and increasingly by economists on deterrent effects. For example, when you impose the death penalty, does that decrease the number of murders that are committed in a state? The results are very mixed. However, much less work seems to be on the effects of prison on inmates after they are released from prison. Consider this: every year we release more than 500,000 people from incarceration into society. We lock up more of our adult population than any society in history by a large order of magnitude, and that means that a larger portion of our society has spent time in prison. When you think of that as a share of overall crime committed, especially by social cost, this

is a huge part of what is weighing down on our society. You can see two potential problems. First, I think politicians have bad incentives. To seem tough on crime, they generally lock more people up, and for longer. This is horrible because it creates more hardened criminals and only temporarily suppresses crime. It is very difficult to win a policy argument when you can't separate two different effects. But suppose we took two identical people. One of them we did



not lock up in prison, the other we did. Now when we release that first guy, how does he behave and look differently?

Of course we can't actually do this; it's unethical. But I try to develop statistical techniques to find out what would happen. I do what's called a regression discontinuity design. I arranged it so that I can see how it is that people are sent to different levels of severity in the prison system. What happens is that when you are sent to the federal prison system, you get a "badness score" from a very objective point system based on past offenses. Your score is compared to a series of cut offs and those cutoffs determine where you'll go to prison. If you get x , you go to minimum security prison, but as soon as you get $x+1$, you go to medium security prison and so on.

I figure that the guys who scored x and the guys who scored $x+1$ probably look pretty similar going into prison. We can also see how different they are by looking at the differences between x 's and $x-1$'s. If one commits violent assault after he's released and the other doesn't, then that suggests that the

way they were incarcerated had a huge effect on their behavior. Because we have taken into account deterrent effects but not worsening effects, we may be incarcerating people far too much, in far too harsh conditions, and for far too long, from the perspective of social efficiency.

I understand you also work with monkeys?

Yes. In a recent series of experiments I conducted with some coauthors in the psychology department, we introduced a fiat currency to a monkey colony. We have research assistants spend time with the monkeys and every now and then accidentally drop a small metal token, which has no inherent value to them whatsoever. Monkey runs up, smells the token, bites the token, and then the assistant stands with his hand open. If the monkey puts it back in the assistant's hand, he makes an exaggerated "Why thank you!" and rewards the monkey with a grape. We repeat this, and eventu-

ally the monkeys value the tokens, even in the absence of humans, and will use them in multiple kinds of trades.

How does the behavior of a monkey apply to human decision-making?

I can conduct a lot of the standard revealed preference stuff that we do normally on humans on monkeys, such as price elasticities and behavioral biases. I want to find

people save too little. This behavior could be due to underlying behavioral biases like self-control problems, but if we see that similar mechanisms underlie the decisions that monkeys make, then it's less likely that cultural factors caused them in humans. My tentative results suggest that many of the behavioral biases we demonstrate seem to be evolutionarily ancient. This suggests that they're going to be more resistant to

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out which aspects of our behavior are innate and which are cultural. The monkeys might reveal what aspects of our behavior are over 40 million years old. From a policy standpoint, we think about how to correct irrational behavior, for example, when

treatment and hence may require more paternalistic and invasive policy treatments (this, of course, would make us less willing to correct any particular bias.)

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