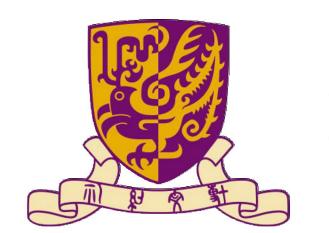
# 近墨者黑經濟學



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# Roland Fryer: The Economics of "Acting White"

Roland Fryer is the 2015 John Bates Clark Medalist. His current research focuses on education reform, social interactions, and police use of force. One of his most famous research is "Acting white" which investigate the insidious myth about black kids and achievement.



## **About Roland Fryer**



#### Early Life

Fryer was surrounded by friends involved in criminal and crack dealing. To make a living, Fryer counterfeit a birth certificate to work at McDonald's. He also sold fake pouches and drug illegally. 8 of his closest friends and family either sent to prison or died young.

#### **Economist**

He first came across the study of economics in the university. The professor also found Fryer's talent in statistic and persuaded him to give up sport and concentrate in his study. After he finished the degree, he joined the fellowships with the National Science Foundation and the National Bureau of Economic Research. Fryer was then earned his Ph.D. at Penn State University.

#### Born in 1997

Fryer was born in 1977 in America. He was growing up in a dysfunctional family that his mother left him when he was four and he has lived with his abusive father who drank heavily and convicted to rape.

#### Football Player

Fryer effort in sport was the turning point of his life. His extraordinary performance in football earned him an athletic scholarship that took him from a "bad high school" to the University of Texas.

#### Professor in Harvard

Roland Fryer is an Economics Professor at Harvard University and faculty director of the Education Innovation Laboratory. Fryer works on education, inequality, and race. His research combines economic theories, empirical evidences, and randomized experiments to help design more effective government policies.

### Model of Acting White

The Two-audience signaling model involves 3 players: The individuals, peer group and employers.

The individuals (non-white students) have different types: high/low commitment level to the peer group and high/low abilities. The type is individuals' private information (Asymmetric info). They maximize their own utility by choosing an education level. Where their utility function are given by:

#### Utility = Acceptance\*Social happiness + Wage - Education cost

Utility represent the satisfaction of their life.

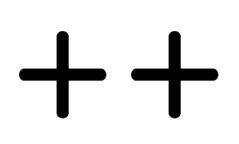
Acceptance depends on the peer group, either "accept" (acceptance = 1) or "reject" (=0).

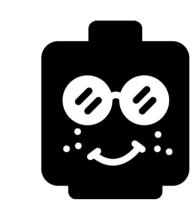
Social happiness is a constant for each individual. Wage depends on the employers, it is a continuous variable.

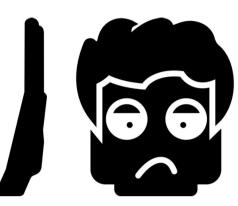
**Education cost** is a function of the education level (+ve) and the individuals' ability (-ve).

The peer group (Audience) maximizes the gain, they gain in the certain pattern:









Rejecting a High/Low type

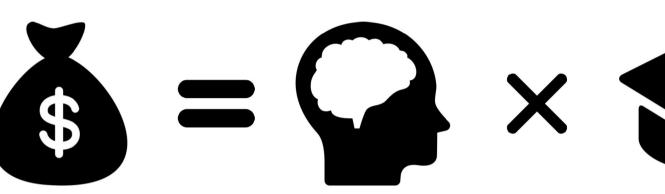
**Accepting** a **High** commitment type

**Accepting** a **Low** type

However, the group doesn't know the individuals' type. They take the **Expected type** (which depends on

the individuals' education level). Higher education signaling a higher probability of low committing peer.

The employers (Audience) are in a competitive market. Hence the Wage equals to labor's marginal product (MPL). While the MPL depends on the **Ability** and the **Education level** of the individuals.

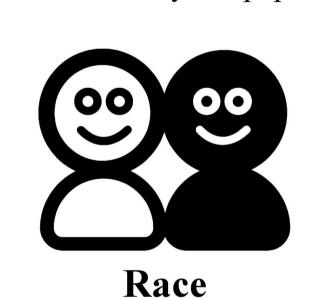


Since the ability is private information, the employers take the Expected ability (which depends on the individuals' education level). Higher education signaling a higher probability of high ability worker.

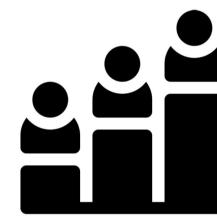
The equilibrium is individual choose a lower education level compared to classic signaling model.

## Data Analysis of Acting White

**Data** used in the Fryer's paper:

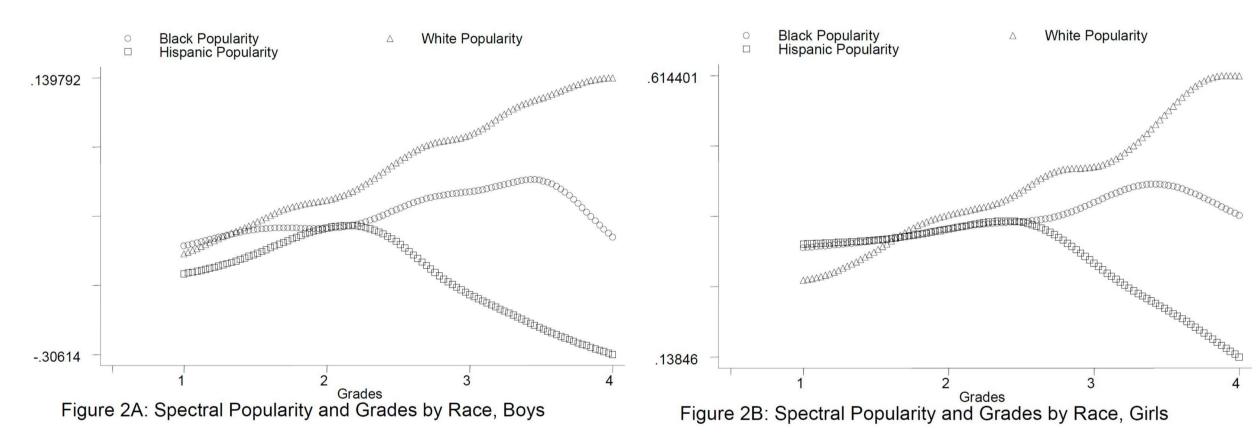






**Achievement (Grades)** 

**Social Status** 



**Regression Model** used by Fryer are as follow: (fixed-effects dummies does not show below)

#### social status = $\alpha$ + $\beta$ \*achievement + $\theta$ \*race\*achievement + error

 $\beta$  explaining the general relationship of the achievement and social status regardless of race.  $\theta$ measuring the extra effect of the achievement on the social status when the race is "non-white". The regression runs with school, grade and race fixed effect.

The results of the regression synchronized with the model.  $\theta$  is significantly **negative**, that is for the "non-white" students, higher achievement has a lower social status when comparing to "white".

Black	0.148** (0.031)
Hispanic	0.164** (0.031)
Grades	0.135** (0.007)
Black*grades	-0.103** (0.012)
Hispanic*grades	-0.171** (0.011)
Observation	~80,000
R-squared	~0.1

<sup>\*\*</sup> Significant at 95% confidence level.

## Solutions of Acting White

In the paper, Fryer provided various solutions to solve the "acting white" problem, such as:

- 1. Labour market improvement (i.e. more individuals willing to bear the cost of being rejected)
- 2. Remove individuals from the community (e.g. A Better Chance / Job Corps / military school)

You could find more details of the solutions from Fryer's paper.



