Effort Outshines Natural Talent When Sharing Knowledge: "Strivers" Perceived as More Effective than "Naturals"

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Abstract: In **services where knowledge is transferred** (e.g. teaching, training, mentoring), instructors whose mastery in the domain is believed to be the product of effort **("strivers")** will be **perceived as more effective than** instructors whose mastery is believed to be the product of natural talent **("naturals").** We suggest that implicit beliefs about effort and about the superior mastery of naturals might lead learners to perceive strivers as more effective, clear, and motivating instructors. We find **consistent results across five studies** in both traditional teaching environments and organizational settings, using a **multi-method approach** that included both archival data from the largest publicly available teaching evaluation database and experiments. Quantitative and qualitative analyses suggest that the higher overall ratings and preference for strivers as instructors may be **mediated by perceptions** about their superior **clarity and ability to motivate.**

Background

- The research to date shows that **people evaluate naturals as superior than strivers**, even in domains like entrepreneurship, where effort is believed to be more relevant than natural talent for success (7, 8).
- At the same time, people also **value hard work**. In some contexts, people give **higher ratings** and are willing to pay more for a service when they **perceive higher than lower effort** (2, 6).
- We suggest that implicit beliefs about effort and about the superior expertise of naturals (7, 8) might lead people to **evaluate strivers as clearer, more motivating and more effective instructors than naturals**. Research suggests that experts and people who learnt more intuitively have more difficulties transferring knowledge to learners, as they are more prone to skip steps and less capable of detecting where novices struggle (1, 3, 5). Furthermore, experts might also be less capable of empathizing with novices (9) and of motivating them (4).

Study 1- Field Study: Student Evaluations

Methods

Sample	Methods	DVs :	Controls:
• Reviews from student evaluations (June 2001-April 2019) • Selected subsample of 30 top-ranked schools in the US (366,160 observations) • Independent coders classify the reviews as referring to "naturals" or "strivers" • Final sample of 7,498 observations: 6,183 naturals, 752 strivers	• Multilinear Regression (OLS) • Propensity Score Matching (PSM) for robustness checks	• Clarity • Helpfulness • Overall Rating • Willingness to take the course again	• Perceived difficulty of the course • Interest in the course • Grades • School fixed effects

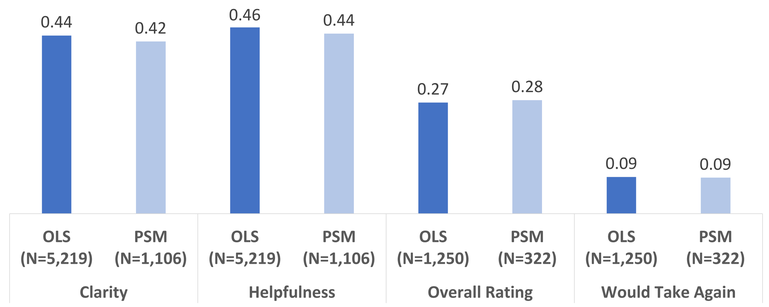
Results

Multilinear Regression

	Clarity		Helpfulness		Overall Rating		Would take again	
	Full Sample	*Reporting grades*	*Full Sample*	*Reporting grades*	*Full Sample*	*Reporting grades*	*Full Sample*	*Reporting grades*
Striver	**0.438*** **	**0.413*** **	**0.458*** **	**0.305*** **	**0.273*** **	**0.281*** **	**0.090*** **	**0.112*** **
	(0.0354)	(0.0973)	(0.0345)	(0.0964)	(0.0723)	(0.0819)	(0.0249)	(0.0256)
Difficulty	-0.225***	-0.120***	-0.217***	-0.096**	-0.253***	-0.063	-0.095***	-.0454***
	(0.0142)	(0.0423)	(0.0138)	(0.0392)	(0.0330)	(0.0411)	(0.0120)	(0.0149)
Interest	0.153***	0.232***	0.133***	0.172***				
	(0.0113)	(0.0398)	(0.0110)	(0.0392)				
Grades		0.306***		0.285***		0.660***		0.211***
		(0.0989)		(0.0957)		(0.142)		(0.0443)
Constant	4.080***	0.486	4.136***	1.975***	5.737***	2.331***	1.290***	0.224
	(0.168)	(0.469)	(0.160)	(0.464)	(0.147)	(0.646)	(0.0514)	(0.204)
School FE?	Y	Y	Y	Y	Y	Y	Y	Y
Observations	*5,219*	*545*	*5,219*	*545*	*1,250*	*724*	*1,250*	*724*

*Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1*

Robustness checks: OLS vs. PSM



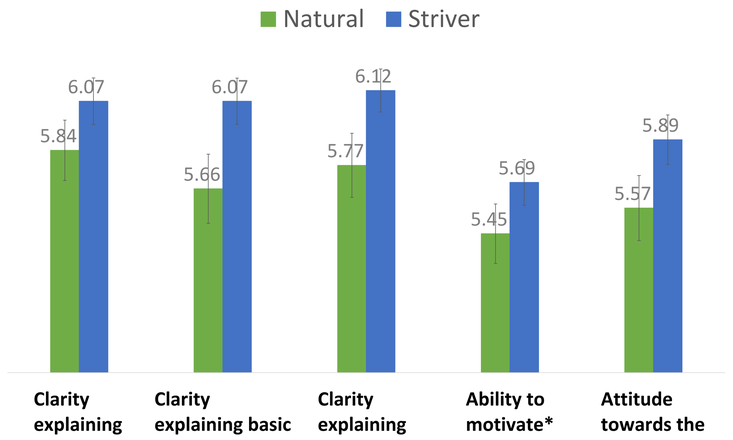
Study 2-Online Experiments: Traditional Teaching Environment

Methods

Study	Sample	Methods & Experimental Design	DVs (1-7 Likert scale):
2a. Baseline	N=171 52.05% female Age: M=34.38, SD=12.33	• Randomized experiments (Mturk) • Conditions: "Natural", "Striver" • Between-subjects design • Setting: recruitment of Stats professor • Participants rate the profile of a short-listed candidate	• General performance • Clarity • Effectiveness addressing questions • Probability teach unique skills • Ability to motivate • Attitude towards the instructor
2b. Adding Identical Information About Teaching Credentials	N=181 54.14% female Age: M=31.32, SD=9.84		
2c. Showing Participants Identical Sample Video Lesson	N=155 52.26% female Age: M=32.30, SD=9.65		

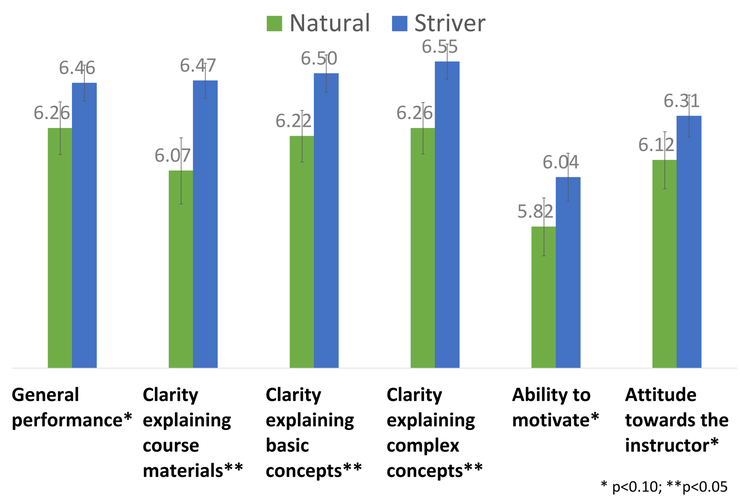
Results

2a. Baseline



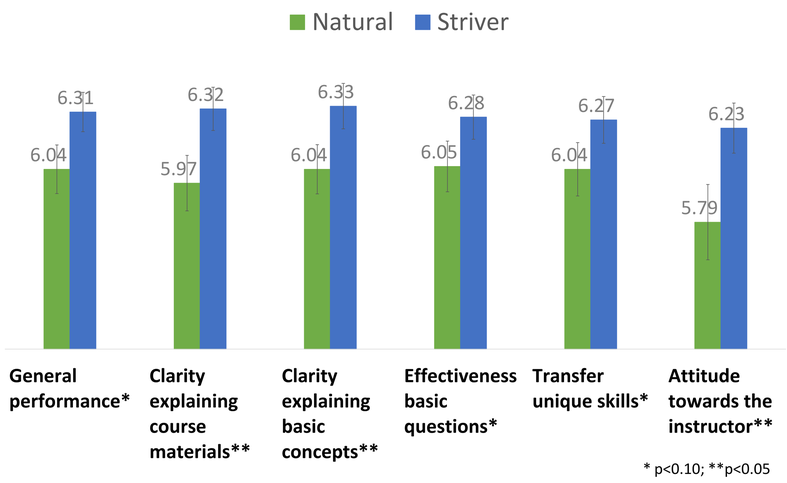
* p<0.10; **p<0.05

2b. Adding Identical Information About Teaching Credentials



* p<0.10; **p<0.05

2c. Showing Participants Identical Sample Video Lesson

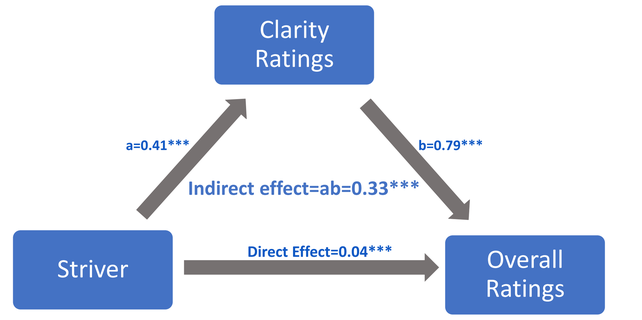


* p<0.10; **p<0.05

Mediation Analysis

Step 1: Independent coders identified clarity and motivation as common themes driving the preferences for the striver.

Step 2: Quantitative mediation analyses (5,000 bootstrap samples) supports **clarity as a mediator:**



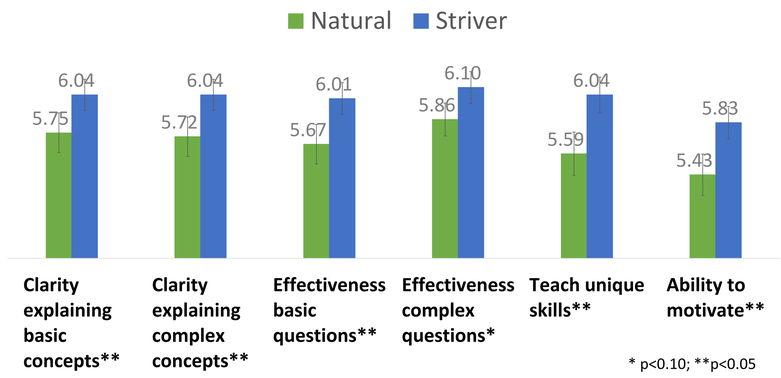
***p<0.001; **p<0.05

Study 3-Online Experiment: Corporate Training

Methods

Sample	Methods & Experimental Design	DVs (1-7 Likert scale):
Senior managers & executives: • N=140 • 52.05% female • Age: M=37.78, SD=9.86	• Randomized experiment (**Qualtrics Panels**) • Setting: recruitment Macroeconomic Modelling and Forecasting professor for corporate training at investment banking firm • Conditions: "Natural", "Striver" • Between-subjects	• General performance • Clarity • Effectiveness addressing questions • Probability teach unique skills • Ability to motivate • Attitude towards the instructor

Results



* p<0.10; **p<0.05

Discussion

Contributions:

1. Shedding light on how the perceived source of achievement impacts evaluations, providing the first empirical case of when strivers are valued more favorably than naturals.
2. Further understanding why effort might be rewarded in the evaluation of products and services.

Implications for decision-making: beyond encouraging and praising hard work, teachers, trainers, coaches and mentors might want to make more transparent to their trainees, mentees and coachees how hard they had to work to acquire their mastery.

Next steps: understanding preferences for hard work or natural talent in services where the quality of the personal interaction is highly valued.

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