

The Quarterback and the Situation: Evidence for the Fundamental Attribution Error in Evaluations of Quarterback Success

Isaac Spear

Advisors: Angela Duckworth and Danny Southwick
University of Pennsylvania

Research Questions

Do NFL scouts commit the fundamental attribution error in quarterback evaluation?

What are the consequences of the fundamental attribution error in real-world decision-making?

Introduction and Current Investigation

We conducted two studies to examine whether NFL talent evaluators (scouts) commit the fundamental attribution error in their evaluations of NFL quarterback performance.

- In **Study 1**, we examined how influential NFL scouts, coaches, personnel managers, and analysts believe individual ability factors are on quarterback performance relative to situational influences.
- In **Study 2**, we predicted quarterback performance using both individual ability factors and situational influences.

What is the fundamental attribution error?

- The tendency to overestimate the impact of individual factors and underestimate the impact of situational influences when attributing the causes of others' behavior (Ross, 1977).
- People tend to attribute others' behavior to enduring individual characteristics even when they know those others have been situationally influenced (see Gilbert & Jones, 1986; Jones & Harris, 1967).

Overarching Hypothesis

Scouts will overestimate the relative influence of individual ability factors on quarterback performance while situational influences will be more predictive of quarterback performance, thereby providing evidence for the fundamental attribution error.

Study 1: Methods

Sample: Participants: 28 NFL front office employees (78.6% were scouts, 10.7% were coaches, 7.1% were football analysts, and 3.6% were personnel managers).

Procedure: Scouts nominated factors they think account for the differences in performance between quarterbacks in the NFL, rated how influential each factor is on quarterback performance, indicated the degree to which each factor is individual or situational, and attributed a percentage of quarterback performance to individual ability and situational influences.

Study 1: Measures (Survey Questions)

Question 1:

As you know, it can be difficult to predict performance in the NFL. Some quarterbacks have had excellent statistics throughout their careers while other quarterbacks have had much less impressive numbers.

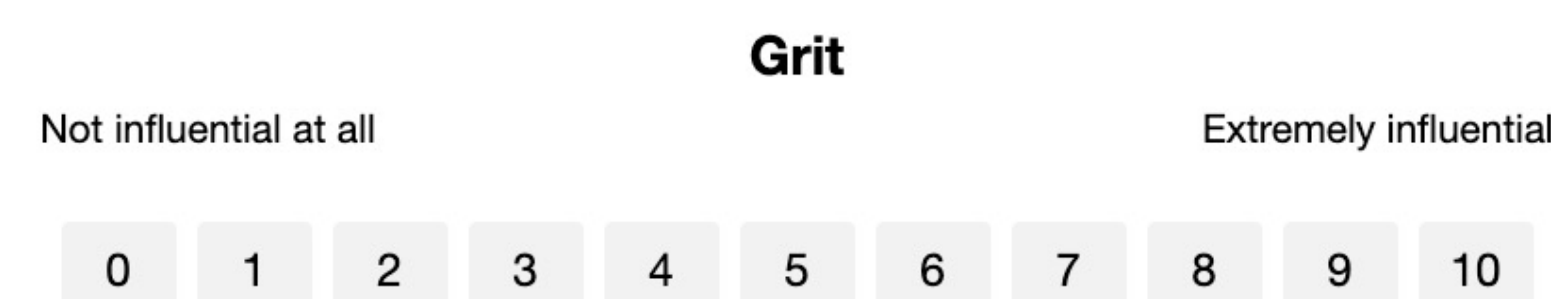
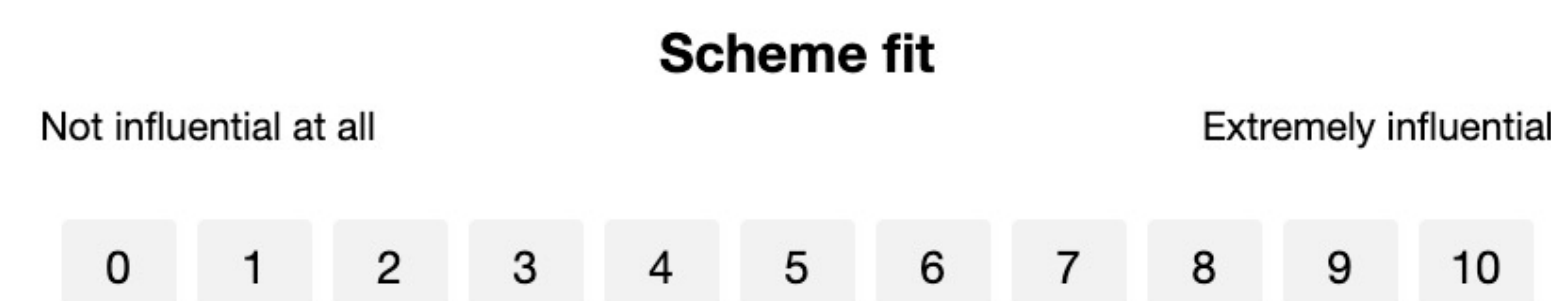
What do you think accounts for these differences in performance?

Please list at least 5 and up to 10 factors.

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

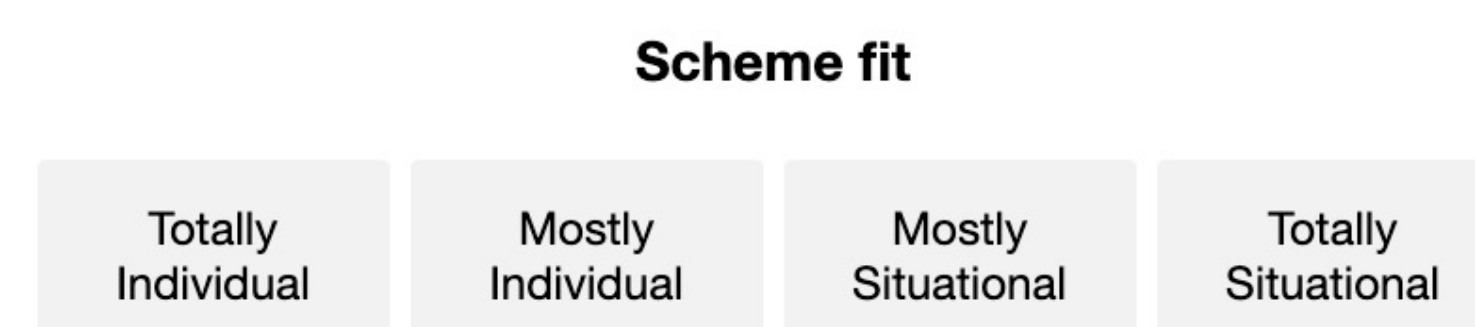
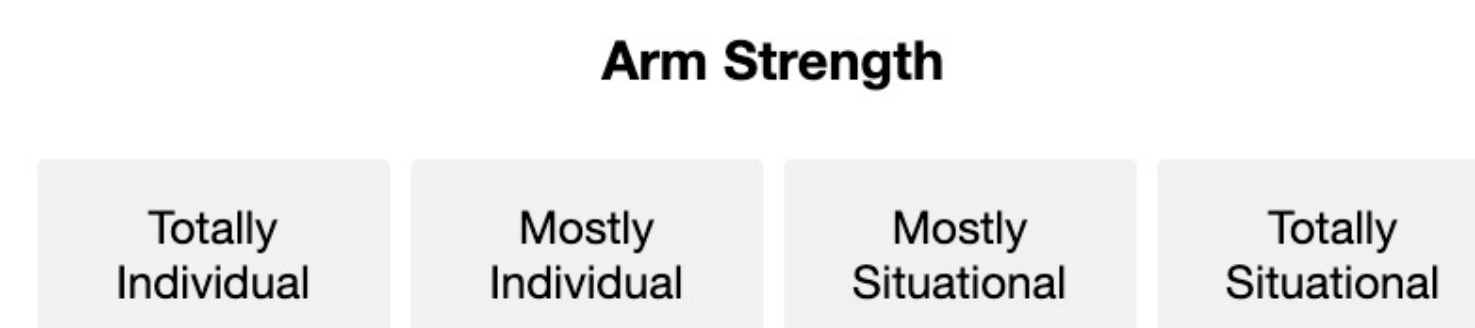
Question 2:

How influential are each of these factors on a quarterback's performance in the NFL?



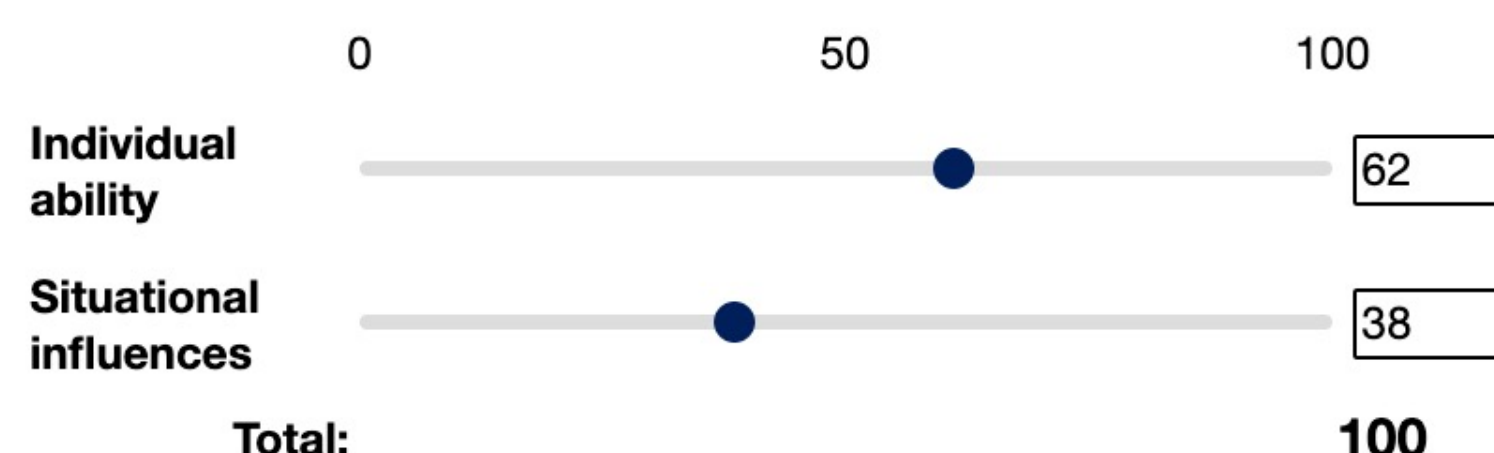
Question 3:

To what extent is each factor due to a quarterback's individual ability versus situational influences?



Question 4:

In your opinion, to what extent is quarterback performance determined by individual ability versus situational influences (**Total must equal 100**)?

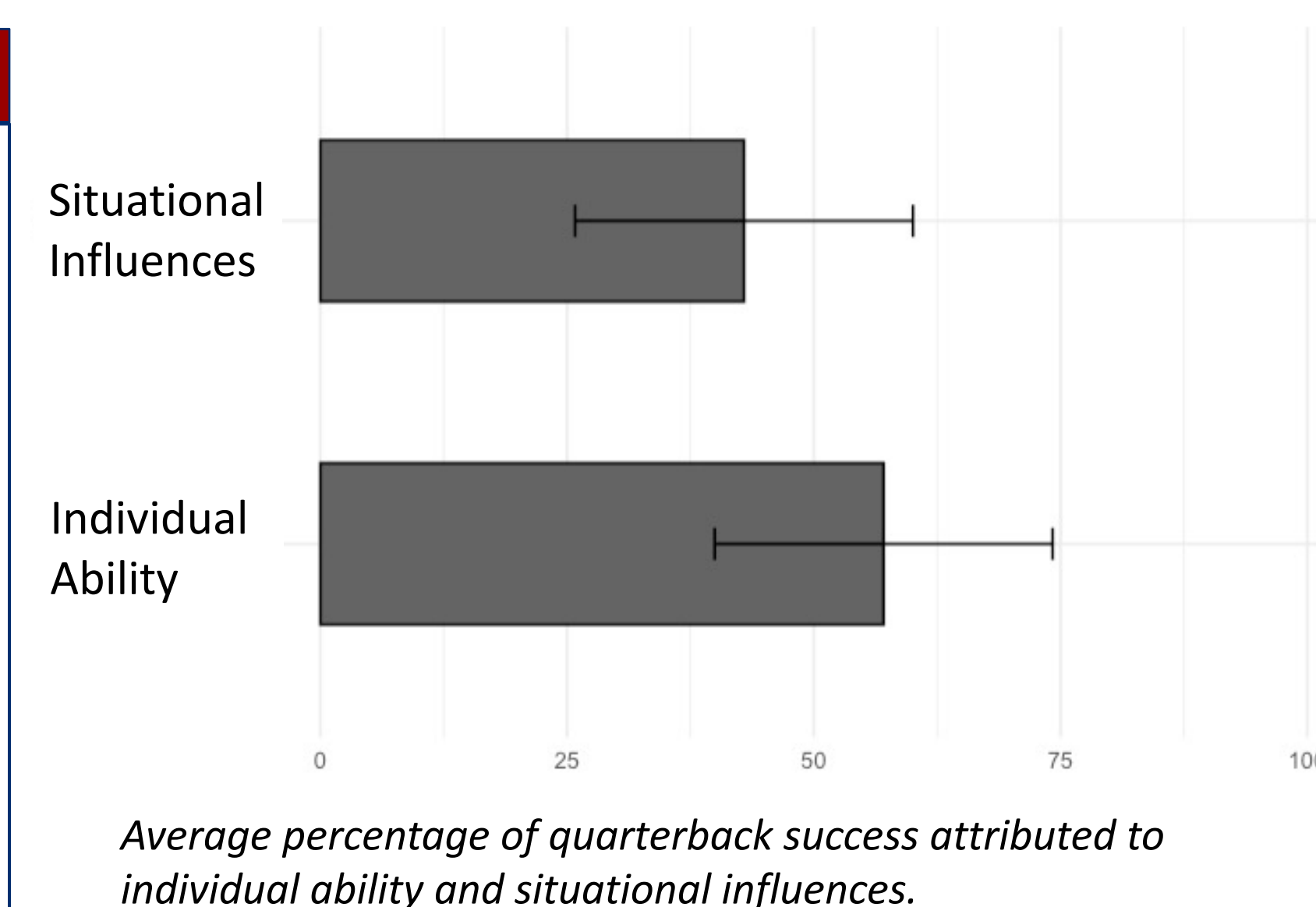


Study 1: Results

NFL scouts on average nominated 6 individual factors compared to only 2 situational factors.

The more a factor was indicated to be individual, the more influential it was rated ($r = -0.26, p < .001$).

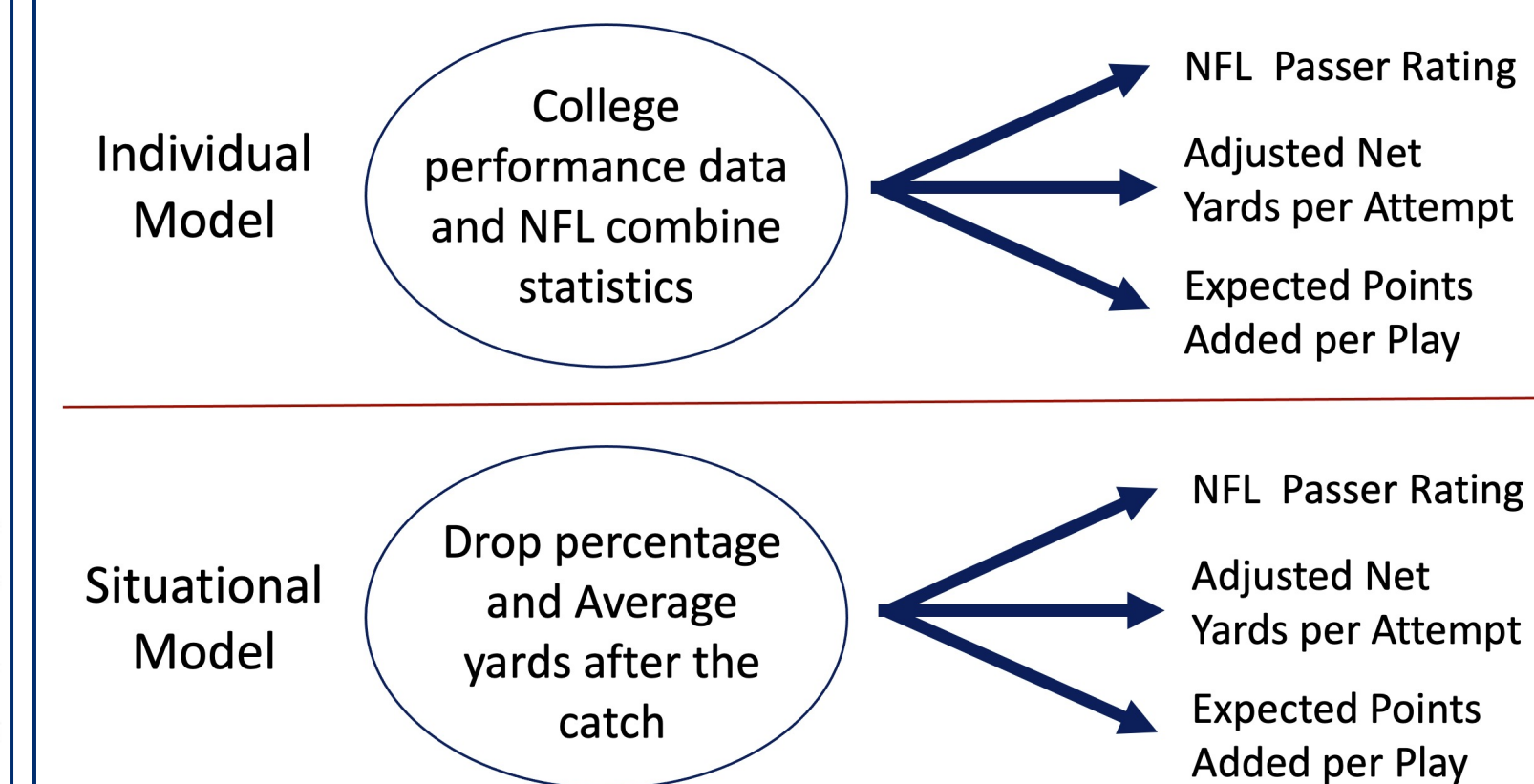
Scouts attributed 57% of quarterback's performance to individual ability and 43% to situational influences.



Study 2: Methods

Sample: 66 quarterbacks who were drafted into the NFL between 2006-2017 and attempted at least 200 pass attempts in their first four seasons in the NFL.

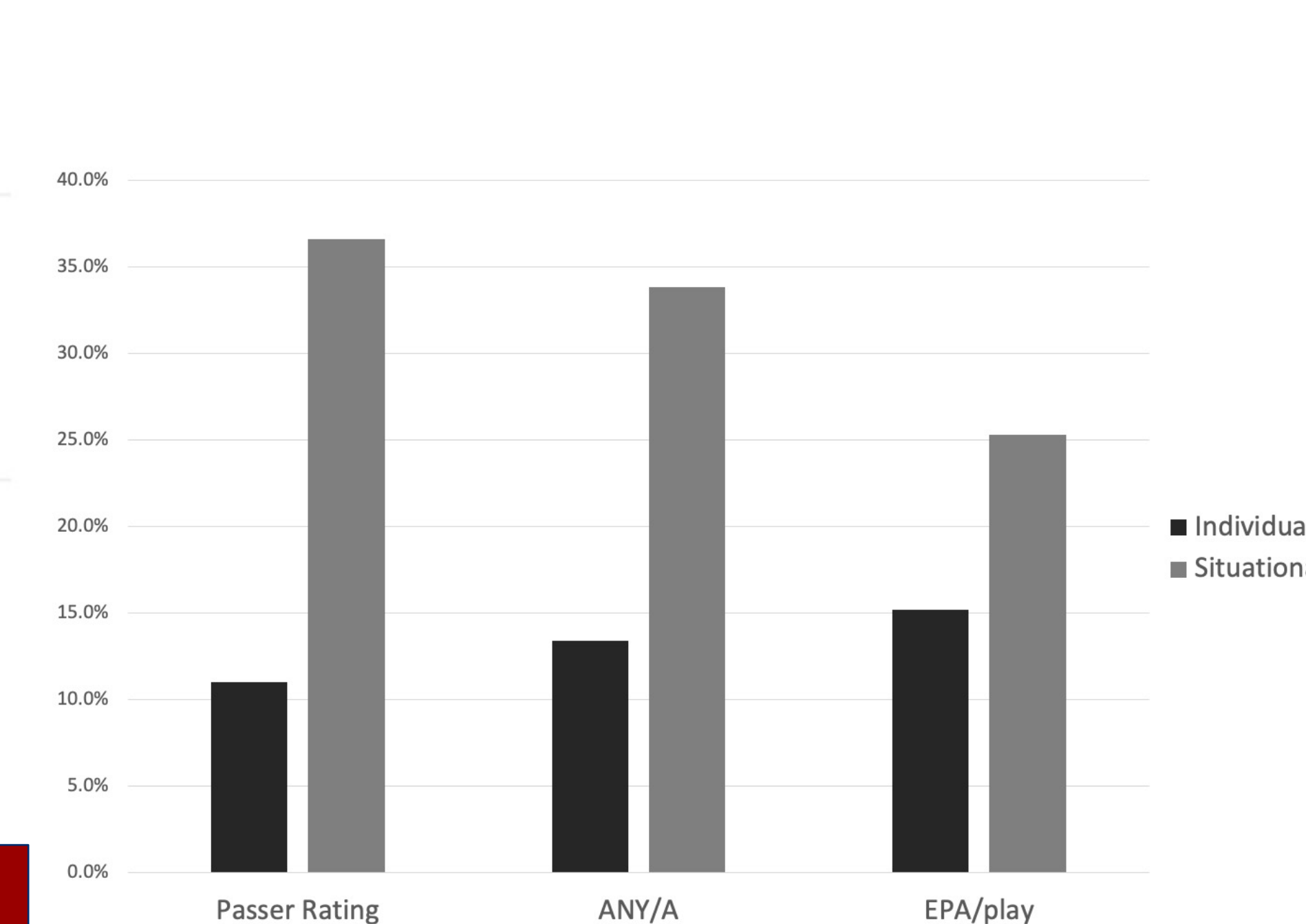
Prediction Models:



Study 2: Results

The best individual predictor model used a quarterback's touchdown passes from his last college season and explained **11%** of the variance in passer rating, **13.4%** of the variance in ANY/A, and **15.2%** of the variance in EPA/play.

The situational model explained **36.6%** of the variance in passer rating, **33.8%** of the variance in ANY/A, and **25.3%** of the variance in EPA/play.



Discussion and Conclusion

Collectively, these studies suggest that NFL scouts commit the fundamental attribution error.

In Study 1, scouts attributed quarterback performance more to individual ability relative to situational influences.

In Study 2, situational influences were better predictors of quarterback performance than individual ability factors.

Limitations

- The current investigation does not establish a link between the overweighting of individual ability factors and scouts' relatively poor track record in drafting high-performing quarterback prospects (see Berri & Simmons, 2011).
- We have not yet examined how situational influences quarterbacks experience *in college* affect their performance and expert evaluations of their performance.

Future Directions

- In the future, it would be interesting to explore quarterbacks' own behavioral attributions of their performance relative to that of coaches and scouts.

Contact

Isaac Spear
University of Pennsylvania
Email: ibspear@sas.upenn.edu

References

- Berri, D. J., & Simmons, R. (2011). Catching a draft: On the process of selecting quarterbacks in the National Football League amateur draft. *Journal of Productivity Analysis*, 35(1), 37-49.
- Gilbert, D. T., & Jones, E. E. (1986). Perceiver-induced constraint: Interpretations of self-generated reality. *Journal of Personality and Social Psychology*, 50(2), 269.
- Jones, E. E. & Harris, V. A. (1967): The attribution of attitudes. *Journal of Experimental Social Psychology*, 3, 1-24.
- Ross, L. D. (1977). The intuitive psychologist and his shortcomings: Distortions in the attribution process. *Advances in Experimental Social Psychology* (Vol. 10, pp. 173-220). Academic Press.