NBA

The NBA's No. 1 Pick Is Both a Blessing and a Curse

Having the NBA draft's no. 1 pick sounds pretty good. Having two, like the Minnesota Timberwolves, sounds even better. But as history has shown, top picks rarely lead their teams to the NBA's mountaintop.

By Howard Beck | May 29, 2024, 9:46am EDT



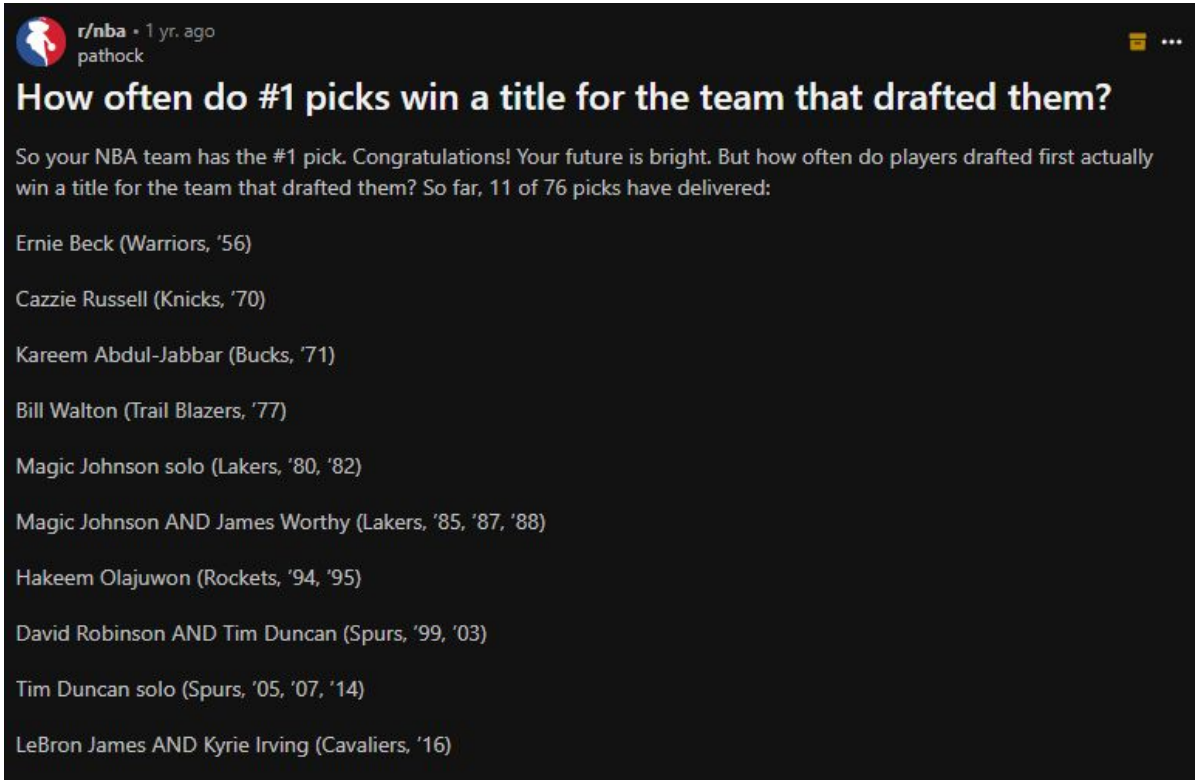
Falling for the Exception: Understanding and Avoiding the Base Rate Fallacy

Benjy Braun

Top picks rarely lead their teams to the NBA’s mountain top?

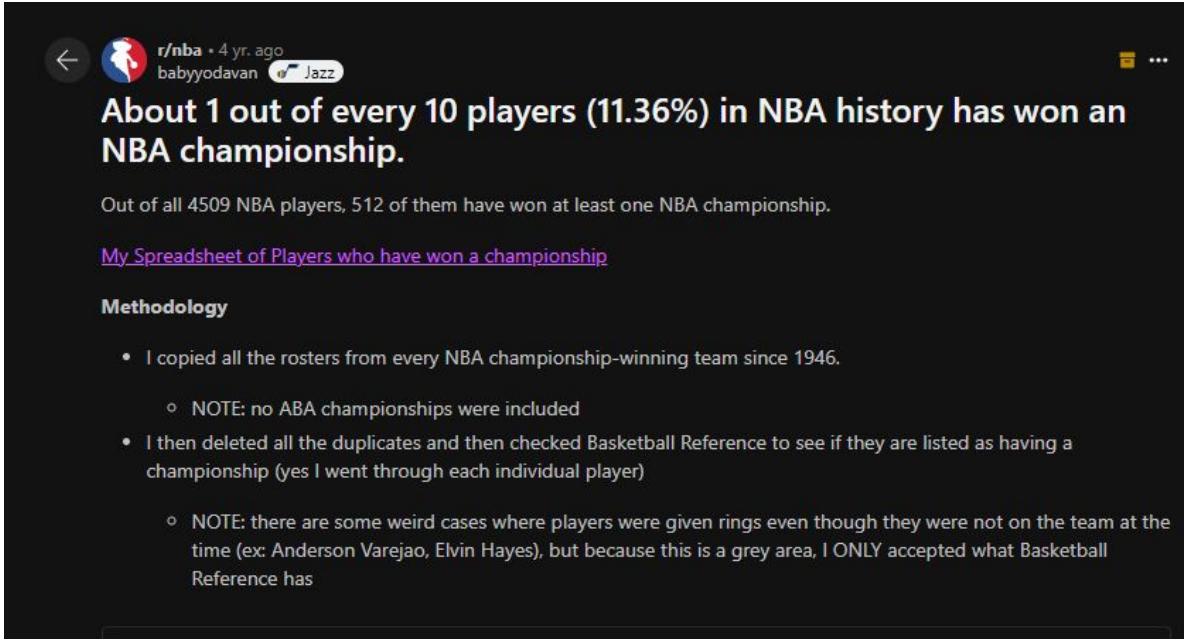
Top picks rarely lead their teams to the NBA's mountain top?

Yes . . . .



11 out of 78 number 1 overall picks have won championships for their teams, good for about 14% of all number 1 picks.

But how many draft picks PERIOD have won championships for the teams that drafted them?



Looks like winning an NBA title is pretty hard is pretty hard. And it looks like number **1 picks are about 20% more likely to win for the team that drafted them** than everyone else.

Base Rate Fallacy

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The base rate fallacy, also called base rate neglect or base rate bias, is a type of fallacy in which people tend to ignore the base rate (e.g., general prevalence) in favor of the individuating information (i.e., information pertaining only to a specific case).

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Essentially, people tend to focus on the exceptional rather than general to their detriment (and don’t understand probability) . . .

Imagine that a group of police officers have breathalyzers displaying false drunkenness in **5%** of the cases in which the driver is sober. However, the breathalyzers **never fail** to detect a truly drunk person. **One in a thousand drivers is driving drunk**. Suppose the police officers then stop a driver at random to administer a breathalyzer test. It indicates that the driver is drunk. No other information is known about them.

What is the probability the driver is drunk?

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Hint: it's not 95%

1 driver is drunk, and it is 100% certain that for that driver there is a *true* positive test result, so there is **1 *true* positive test result**.

999 drivers are not drunk, and among those drivers there are 5% *false* positive test results, so there are **49.95 *false* positive test results.**

Therefore, the probability that any given driver among the 1 + 49.95 = 50.95 positive test results really is drunk is:

$$\mathbf{1/50.95 \approx 0.019627}$$

$$p(D) = p(D \mid \text{drunk})\, p(\text{drunk}) + p(D \mid \text{sober})\, p(\text{sober})$$

which gives

$$p(D) = (1.00 \times 0.001) + (0.05 \times 0.999) = 0.05095.$$

Plugging these numbers into Bayes' theorem, one finds that

$$p(\text{drunk} \mid D) = \frac{1.00 \times 0.001}{0.05095} \approx 0.019627,$$

which is the precision of the test.

Hiring Decisions -- Who will be more successful?

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Jenna is a stellar candidate with dual degrees from Ivy League Universities

Rachel went to community college and then transferred to a state school

Hiring Decisions -- Who will be more successful?

Jenna is a stellar candidate with dual degrees from Ivy League Universities

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Who knows? How successful are you candidates on average?

Startups -- Which will be profitable?

Facebook Loomed Even After Initial Success

The Role of Advertising

The Impact of Branded Content

Lessons for Growing Companies

Prioritizing the User Experience

INNOVATION | OCT 18, 2022

MySpace Had It Right. Facebook Did It Better

The social networking pioneer is a cautionary tale of the importance of innovative advertising, the user experience, and staying true to a long-term vision.

Listen to this article



90% of Startups fail!

NBA

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Winning the title is hard--and it's only a little easier for #1 picks



Failure to consider the base rate goes beyond championships . . .

The average NBA career is about 4.5 years

THE NBA DRAFT
LOTTERY PICK's CAREER LENGTHS

Since the Modern Draft Era (1966)

Average Career Length			Graphic by Ethan Peterson
Draft Pick	Seasons Played	Games Played	Notable Picks
1st	10.4	706	Kareem Abdul-Jabbar | LeBron James | Shaquille O'Neill | Magic Johnson
2nd	9.4	665	Kevin Durant | Alonzo Mourning | Gary Payton | Jason Kidd
3rd	9.4	648	Michael Jordan | James Harden | Joel Embiid | Kevin McHale
4th	9.0	627	Chris Paul | Dikembe Mutombo | Russell Westbrook | Chris Bosh
5th	9.9	678	Kevin Garnett | Walt Frazier | Scottie Pippen | Charles Barkley
6th	7.3	504	Larry Bird | Damian Lillard | Adrian Dantley | Danilo Gallinari
7th	8.8	593	Stephen Curry | Bernard King | Jamal Murray | Chris Mullin
8th	8.4	561	Robert Parish | Jack Sikma | Detlef Schrempf | Andre Miller
9th	8.5	587	Dirk Nowitzki | Tracy McGrady | Shawn Marion | Andre Iguodala
10th	7.6	508	Paul Pierce | Horace Grant | Jason Terry | Eddie Jones | CJ McCollum
11th	7.6	505	Reggie Miller | Shai Gilgeous-Alexander | Jamaal Wilkes | Domantas Sabonis
12th	6.9	467	Julius Erving | Thaddeus Young | Muggsy Bogues | Cedric Maxwell
13th	7.2	481	Kobe Bryant | Karl Malone | Richard Jefferson | Donovan Mitchell
14th	6.4	424	Clyde Drexler | Tim Hardaway | Peja Stojakovic | Tim Hardaway







Per Game

Bold indicates league leader | Share & Export ▾ | Glossary | Hide Partial Rows

Regular Season | Playoffs

Season	Age	Tm	Lg	Pos	G	GS	MP	FG	FGA	FG%	3P	3PA	3P%	2P	2PA	2P%	eFG%	FT	FTA	FT%	ORB	DRB	TRB	AST	STL	BLK	TOV	PF	PTS	Awards
2001-02	19	WAS	NBA	PF	57	3	14.3	1.6	4.3	.387	0.0	0.0	.000	1.6	4.2	.388	.387	1.2	1.7	.707	1.1	2.4	3.5	0.8	0.3	0.5	0.8	1.8	4.5	
2002-03	20	WAS	NBA	C	80	20	22.2	2.8	6.3	.446	0.0	0.0	.000	2.8	6.2	.449	.446	1.8	2.7	.668	1.6	3.7	5.3	0.7	0.6	1.0	1.4	2.0	7.4	
2003-04	21	WAS	NBA	PF	74	57	30.3	3.9	8.0	.489	0.0	0.0	.500	3.9	7.9	.489	.490	3.1	4.5	.683	2.4	5.0	7.4	1.5	0.9	0.7	1.9	1.9	10.9	
2004-05	22	WAS	NBA	PF	42	14	21.6	2.6	5.6	.460	0.0	0.0		2.6	5.6	.460	.460	1.8	3.1	.574	1.7	3.2	4.9	0.9	0.6	0.4	1.6	2.7	7.0	
2005-06	23	LAL	NBA	C	72	49	27.5	2.8	5.4	.526	0.0	0.0	.000	2.8	5.4	.527	.526	1.8	3.3	.545	2.5	4.0	6.6	1.0	0.4	0.6	1.4	2.7	7.4	
2006-07	24	LAL	NBA	C	41	28	27.6	3.5	5.9	.591	0.0	0.0	.000	3.5	5.9	.593	.591	1.4	3.3	.440	2.0	4.0	6.0	1.8	1.0	1.2	1.9	3.0	8.4	
2007-08	25	TOT	NBA	C	38	15	18.8	1.9	3.7	.507	0.0	0.0		1.9	3.7	.507	.507	1.1	2.6	.408	1.3	3.6	4.9	1.2	0.6	0.6	1.3	2.2	4.8	
2007-08	25	LAL	NBA	C	23	14	22.1	2.3	4.5	.515	0.0	0.0		2.3	4.5	.515	.515	1.1	2.8	.406	1.3	4.3	5.7	1.2	0.7	0.8	1.6	2.5	5.7	
2007-08	25	MEM	NBA	C	15	1	13.6	1.3	2.6	.487	0.0	0.0		1.3	2.6	.487	.487	0.9	2.3	.412	1.3	2.5	3.8	1.1	0.4	0.3	0.9	1.6	3.5	
2008-09	26	DET	NBA	C	58	30	17.2	1.6	2.9	.533	0.0	0.0		1.6	2.9	.533	.533	1.1	2.1	.516	1.6	3.4	5.0	0.6	0.4	0.4	0.9	2.4	4.2	
2009-10	27	DET	NBA	C	48	1	13.8	1.3	2.6	.500	0.0	0.0	.000	1.3	2.6	.504	.500	0.7	2.0	.337	1.1	2.6	3.7	0.5	0.3	0.3	0.9	1.9	3.3	
2010-11	28	CHA	NBA	C	66	50	26.0	2.9	5.7	.517	0.0	0.0		2.9	5.7	.517	.517	2.1	3.5	.589	2.2	4.6	6.8	0.7	0.4	0.6	1.0	2.6	7.9	
2011-12	29	GSW	NBA	C	9	3	20.8	2.3	4.4	.525	0.0	0.0		2.3	4.4	.525	.525	1.7	3.8	.441	1.8	4.6	6.3	0.4	0.9	0.0	1.6	2.3	6.3	
2012-13	30	PHI	NBA	C	22	11	12.2	0.8	1.7	.459	0.0	0.0		0.8	1.7	.459	.459	0.3	0.9	.368	1.0	2.3	3.4	0.4	0.3	0.5	0.4	1.7	1.9	
Career			**NBA**		**607**	**281**	**22.1**	**2.5**	**5.1**	**.492**	**0.0**	**0.0**	**.111**	**2.5**	**5.1**	**.493**	**.492**	**1.6**	**2.9**	**.570**	**1.8**	**3.7**	**5.5**	**0.9**	**0.5**	**0.6**	**1.3**	**2.3**	**6.6**	

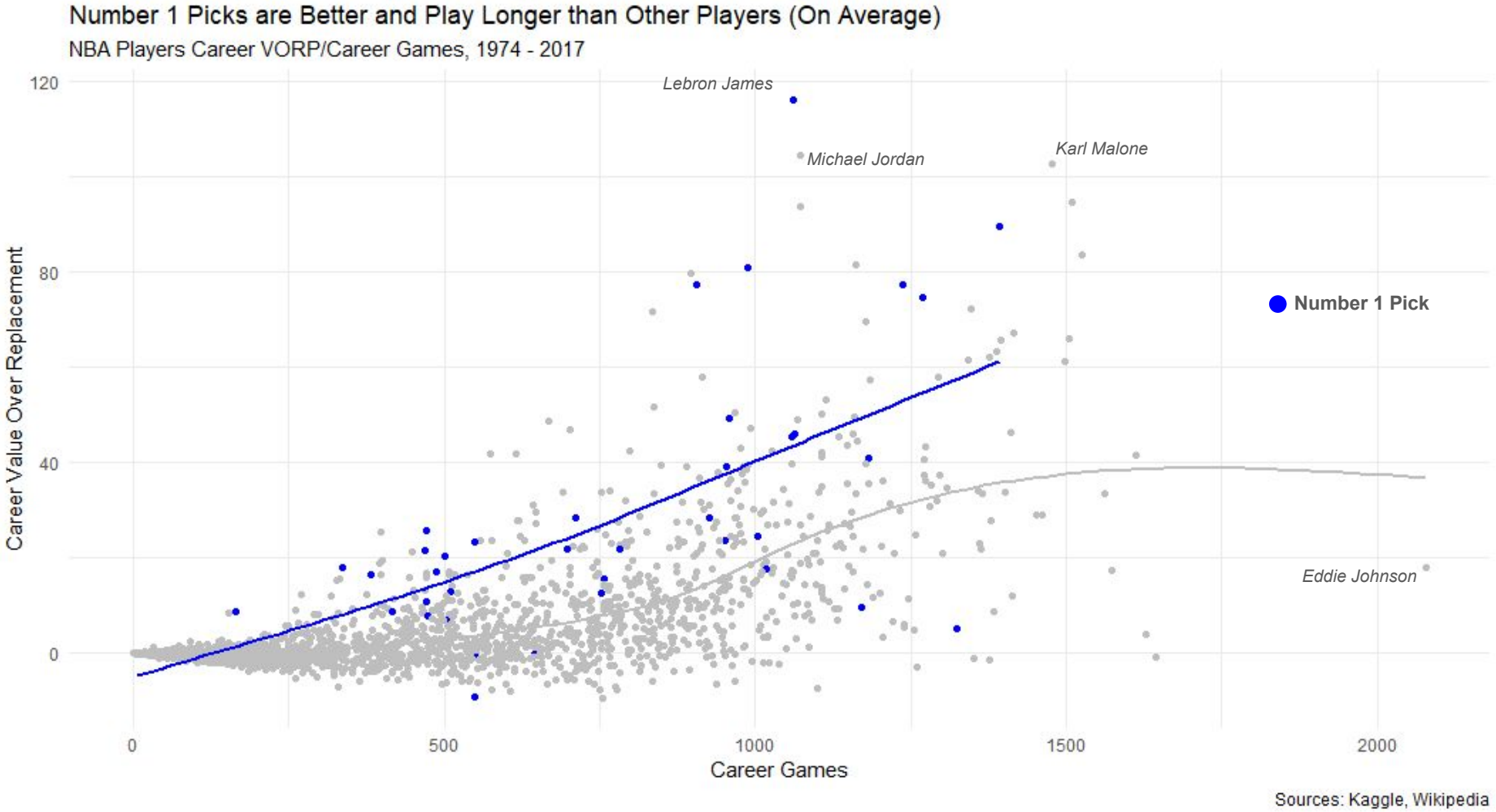


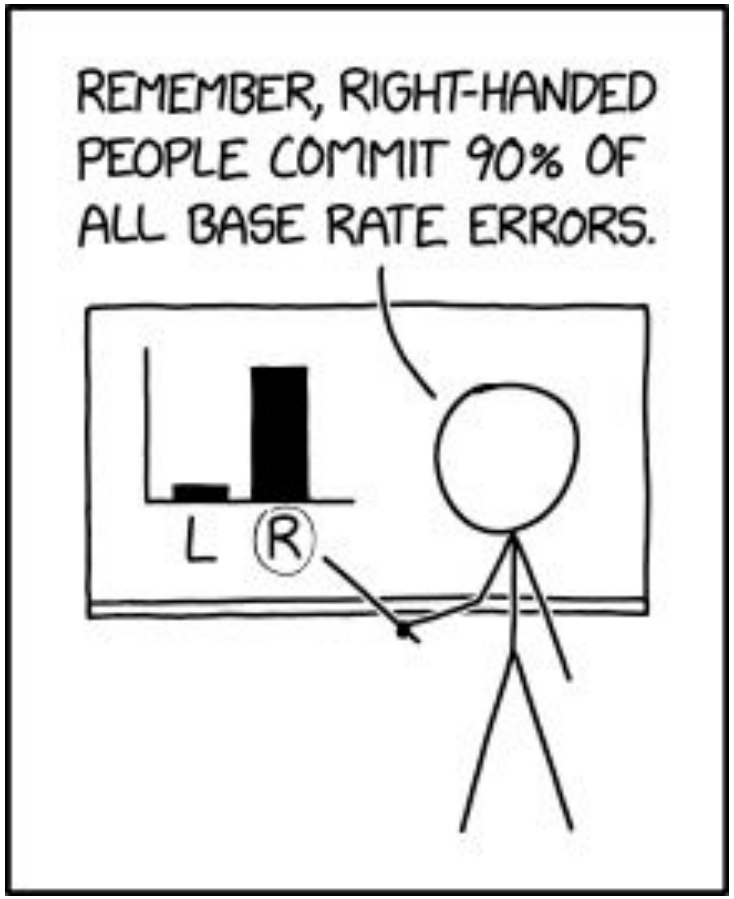
Per Game

Bold indicates league leader | Share & Export ▾ | Glossary | Hide Partial Rows

Regular Season | Playoffs

Season	Age	Tm	Lg	Pos	G	GS	MP	FG	FGA	FG%	3P	3PA	3P%	2P	2PA	2P%	eFG%	FT	FTA	FT%	ORB	DRB	TRB	AST	STL	BLK	TOV	PF	PTS	Awards
2003-04	18	DET	NBA	C	34	0	4.7	0.5	1.9	.262	0.0	0.0	.000	0.5	1.9	.266	.262	0.4	0.7	.583	0.3	0.9	1.3	0.2	0.2	0.4	0.4	1.0	1.4	
2004-05	19	DET	NBA	C	37	2	6.9	0.7	2.1	.329	0.0	0.0		0.7	2.1	.329	.329	0.5	0.6	.708	0.1	1.1	1.2	0.2	0.1	0.5	0.4	0.8	1.8	
2005-06	20	TOT	NBA	C	55	1	13.9	2.2	4.3	.509	0.0	0.0	.000	2.2	4.2	.513	.509	0.5	0.9	.560	0.8	1.9	2.7	0.7	0.3	1.4	0.9	1.7	4.8	
2005-06	20	DET	NBA	C	25	0	5.6	0.7	1.3	.515	0.0	0.1	.000	0.7	1.2	.548	.515	0.1	0.3	.375	0.4	0.7	1.1	0.4	0.1	0.6	0.6	1.0	1.5	
2005-06	20	ORL	NBA	C	30	1	20.9	3.4	6.7	.507	0.0	0.0		3.4	6.7	.507	.507	0.8	1.4	.595	1.1	3.0	4.1	1.1	0.4	2.1	1.2	2.2	7.6	
2006-07	21	ORL	NBA	PF	80	16	23.9	3.1	6.9	.454	0.0	0.0	.000	3.1	6.8	.455	.454	1.8	2.9	.613	1.8	3.7	5.5	1.1	0.6	1.8	1.6	2.7	8.0	
2007-08	22	MEM	NBA	C	70	64	23.8	3.1	7.1	.438	0.0	0.0	.000	3.1	7.1	.439	.438	1.0	1.7	.554	1.8	4.2	6.1	0.8	0.5	1.6	1.4	2.6	7.2	
2008-09	23	MEM	NBA	C	61	15	17.0	2.2	4.4	.515	0.0	0.0		2.2	4.4	.515	.515	1.0	1.7	.562	1.4	3.0	4.3	0.6	0.4	0.8	0.8	2.2	5.5	
2009-10	24	TOT	NBA	C	32	18	21.4	3.1	6.4	.490	0.0	0.0	.000	3.1	6.3	.493	.490	0.5	0.9	.536	1.5	3.3	4.7	1.5	0.7	1.1	1.1	2.6	6.7	
2009-10	24	NYK	NBA	C	8	0	8.9	1.0	2.1	.471	0.0	0.0		1.0	2.1	.471	.471	0.0	0.0		0.6	1.6	2.3	0.5	0.5	0.1	0.3	0.9	2.0	
2009-10	24	MIN	NBA	C	24	18	25.6	3.8	7.8	.492	0.0	0.0	.000	3.8	7.8	.495	.492	0.6	1.2	.536	1.8	3.8	5.5	1.8	0.8	1.4	1.4	3.1	8.3	
2010-11	25	MIN	NBA	C	69	69	24.4	3.9	8.4	.469	0.0	0.0		3.9	8.4	.469	.469	0.9	1.7	.557	1.9	3.3	5.2	1.5	0.8	2.0	2.2	3.3	8.8	
2011-12	26	MIN	NBA	C	29	23	16.3	2.0	4.5	.454	0.0	0.0		2.0	4.5	.454	.454	0.6	1.3	.432	1.2	2.1	3.3	0.6	0.3	0.9	1.1	2.0	4.6	
2012-13	27	BOS	NBA	C	1	0	5.0	0.0	1.0	.000	0.0	0.0		0.0	1.0	.000	.000	0.0	0.0		0.0	1.0	1.0	0.0	0.0	0.0	2.0	1.0	0.0	
Career			**NBA**		**468**	**208**	**18.5**	**2.6**	**5.6**	**.460**	**0.0**	**0.0**	**.000**	**2.6**	**5.5**	**.461**	**.460**	**0.9**	**1.6**	**.574**	**1.3**	**2.9**	**4.2**	**0.9**	**0.4**	**1.3**	**1.2**	**2.3**	**6.0**	


Number 1 Picks are Better and Play Longer than Other Players (On Average)
NBA Players Career VORP/Career Games, 1974 - 2017
Lebron James
Michael Jordan
Karl Malone
Eddie Johnson
Number 1 Pick
Career Value Over Replacement
120
80
40
0
0
500
1000
1500
2000
Career Games
Sources: Kaggle, Wikipedia


REMEMBER, RIGHT-HANDED PEOPLE COMMIT 90% OF ALL BASE RATE ERRORS.
L
R

“Superforecasters” take the Base Rate into Account When Making Predictions

Super Predictors: Taking the Base Rate into Account for Making Predictions

Account for the Base Rate in Action . . .

Super Predictors: Taking the Base Rate into Account for Making Predictions

Account for the Base Rate in Action . . .

Will North Korea Test a Missile by the end of 2024?

Start with the ordinary, then move to the exceptional

THE BASE RATE

1. **Historical Average (1984-2023)**: Since 1984, North Korea has conducted over 270 missile tests, averaging about 6.75 tests per year. This frequency has sharply increased under Kim Jong-un, particularly since 2017

2. **Increased Testing in Recent Years (2019-2023)**: Over the past five years, North Korea conducted approximately 100 tests, averaging 20 per year. This period includes some of the most intense testing years on record, with 2022 alone seeing over 60 missile launches

3. **2023 Peak Activity**: In 2023, North Korea conducted at least 36 tests, primarily focused on short- and medium-range ballistic missiles and intercontinental ballistic missiles (ICBMs). This testing frequency was one of the highest on record

4. **2024 Drawdown**: So far in 2024, North Korea has conducted just four missile tests, a considerable reduction compared to the previous year. The limited testing could indicate strategic adjustments, perhaps in response to diplomatic or regional military dynamics

WHAT COULD CHANGE THE BASE RATE

1. **Historical & Strategic Timing**: North Korea often tests around significant events or to gain diplomatic leverage. With the U.S. election approaching, another test could be likely

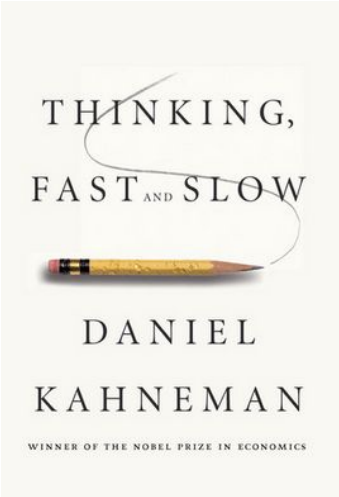
2. **Regional Military Dynamics**: Joint U.S.-ROK military drills and new deployments in the region can increase North Korea's response likelihood to assert its deterrence capabilities

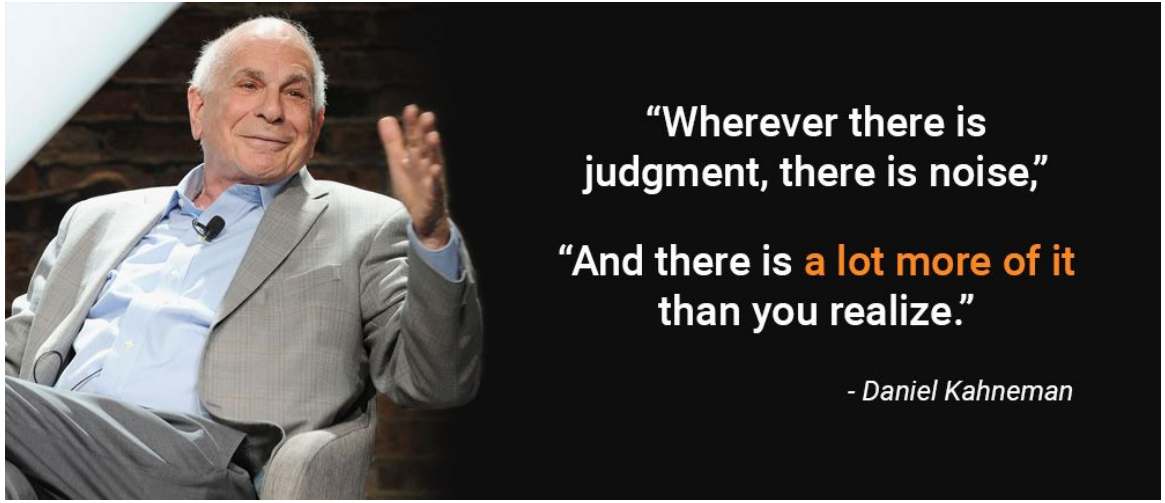
3. **Diplomatic Pressures**: Vetoes from China and Russia on UN sanctions have lowered immediate risks for North Korea, possibly encouraging further tests

4. **Internal Policy Goals**: North Korea's defense strategy under Kim Jong-un includes ongoing missile advancement, making technical validation or new system testing plausible

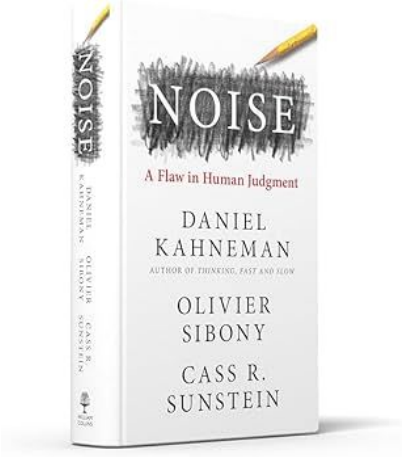
5. **Leadership Unpredictability**: Kim Jong-un's decision-making often defies patterns, making predictions challenging but crucial for assessing risk

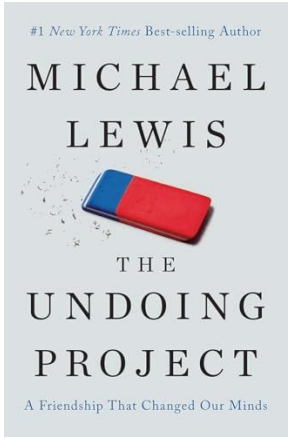
What’s an area in your life/business/analysis that you fell victim to the base rate fallacy?


THINKING, FAST AND SLOW
DANIEL KAHNEMAN
WINNER OF THE NOBEL PRIZE IN ECONOMICS


"Wherever there is judgment, there is noise,"
"And there is a lot more of it than you realize."
- Daniel Kahneman

1934 - 2024


NOISE
A Flaw in Human Judgment
DANIEL KAHNEMAN
AUTHOR OF THINKING, FAST AND SLOW
OLIVIER SIBONY
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#1 New York Times Best-selling Author
MICHAEL LEWIS
THE UNDOING PROJECT
A Friendship That Changed Our Minds