

Failure to Accept Good Advice

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Motivation: Expert advice often ignored

- **People are not experts in every domain.**
- However, they need to make decisions in all manners of areas like medical, legal, educational, social, political, financial, religious etc.

“People in this country have had enough of experts”

Michael Gove MP, UK Justice Secretary prior to UK's referendum on EU membership, 2016.

“Trust me, I'm like a smart person.”

Donald Trump, arguing he does not need to read intelligence reports, 2017.

Motivation: Expert advice seems often ignored



Nigel Farage ✓

@Nigel_Farage

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The World Health Organisation is just another club of 'clever people' who want to bully and tell us what to do. Ignore.



WHO ✓ @WHO

WHO welcomes the Vatican's decision to ban the sale of cigarettes as of next year.

Tobacco kills more than 7 million people every year #NoTobacco



1:07 PM - 9 Nov 2017

But

- Reality is complex. There are many reasons why advice may be ignored, many of these context-dependent.
- How much advice is good anyway? If a lot of expert advice is bad, and this is always ignored, then perhaps there is no problem. However, if a lot of good advice is ignored, this is a societal problem.
- The quality of advice is not always certain.
- People do not know if they will get higher payoff by following the advice.

We run a pre-registered, controlled, online experiment to ask **whether**, **when**, and **why** people ignore good advice.

Whether people ignore good advice: We do not know of papers with an abstracted, controlled experimental setting able to get at this.

When/why may people not take advice? Specific contexts & factors:

- Finance: e.g., human \succ statistical (Önköl et al., '09); advisors' incentives (Mullainathan et al., '12)
- Climate change: e.g., skepticism of experts' incentives (e.g., conspiracies) can drive polarization (Cook & Lewandowsky, '16)
- Credence goods: asymmetric information (Hilger, '16)
- Medical advice: is often ignored, relationships matter (Davis, '68)
- Judge-advisor system: face-to-face e.g., van Swol & Sniezek ('01, '05)
- Interactions with uncertainty e.g., overweighting own info (Moore & Cain, '07; Weizsäcker, '10); “egocentric discounting” (Yaniv & Kleinberger, '00); overconfidence; risk-attitudes etc.

Conceptualization of Advice

- Suppose i and j independently engage in a costly activity.
- This generates their payoffs p_i, p_j
- i is an advisee and j an adviser if i can choose between p_i and p_j .
- **Advice is good** when $p_j > p_i$.

Therefore, good advice is advice that gives you a higher payoff than that you would have received without it.

Study Outline

1. **Whether** people ignore good advice:
 - If $p_j > p_i$, do people choose p_j ?
2. **When** do people ignore good advice:
 - Does context matter?
 - Does value matter?
3. **Why** do people ignore good advice:
 - We look at psychological attributes of individuals, which they carry across contexts; those natural given our conceptualization of advice

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Estimating Equation:

$$y_i = \alpha + \beta \text{task}_i + \theta \text{value}_i + \gamma x_i + \epsilon_i \quad (1)$$

where y takes 0 if the person accepts good advice and 1 if ignores it.
 x includes basic control variables as well as psychological traits.

Experimental Design

- Online experiment: Prolific
- Participation fee: £2.00 plus a potential bonus payment up to £2.50.

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- Session 1 and Session 2 = 4 study groups
 - Luck Treatment (Control Group): 5 coin tosses
 - Effort Treatment (Treatment 1): 5 matrices of counting the 1s
 - Stochastic Payment Treatment (Luck) : Their score in the coin task determines the % chance of a bonus payment
 - Different Event Treatment (Luck) : 5 more coins were tossed. The advice was offered in the new set of coin tosses.

Experiment: Session 1

Participants: 750 subjects

- Two tasks: Randomized into C/Tr1.
 - Luck Treatment (Control Group): 5 coin tosses [Advice Page](#)
 - Effort Treatment (Treatment 1): 5 matrices of counting the 1s [Counting Task](#) [Advice Page](#)
- Advice Page
- Raven Task
- Psychometric scales
 - Dispositional Envy Scale (Smith et al., 1999) [8 Qs](#)
 - Sunk Cost Fallacy Scale (Ronayne, Sgroi, Tuckwell, 2021) [8 Qs](#)
 - Stubbornness scale (Wilkins, 2015) [5 Qs](#)

Experiment: Session 2

Participants: 282 subjects

- Coin Task
- 2 treatments: adding uncertainty in two different ways
 - Stochastic Payment Treatment (Luck) : Their score in the coin task determines the % chance of a bonus payment [Advice Page](#)
 - Different Event Treatment (Luck) : 5 more coins were tossed. The advice was offered in the new set of coin tosses. [Advice Page](#)

1. People do ignore good advice.
2. The propensity to ignore good advice depends on the nature of the task (luck vs effort).
3. The propensity to ignore good advice falls with the value of advice.
4. Uncertainty in the realised outcomes matter.

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People ignore good advice

TABLE 1: Good advice is ignored

		Advice		
		Accepted	Ignored	N
Rational Decision	Panel A: Luck			
	Accept	279	15	294
	Ignore	0	14	14
	Indifferent	5	16	21
	Panel B: Effort			
	Accept	255	5	260
Ignore	0	13	13	
Indifferent	10	35	45	

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TABLE 2: Good advice is ignored

	Advice			Pr(Rational)
	Accepted	Ignored	N	
Panel A: Luck				
Rational to accept	279	15	294	0.949
Rational to ignore	0	14	14	1.000
Panel B: Effort				
Rational to accept	255	5	260	0.981
Rational to ignore	0	13	13	1.000
Panel C: Luck vs Effort				
Difference in Proportions				-0.032
P-value				0.045

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Trade-off between Value and IGA

TABLE 3: The effect of Value of the Advice-taking Behaviour

$y = \mathbb{I}(\text{ignored good advice})$	Luck	Effort
Value	-0.034*** (0.013)	-0.011 (0.009)
Constant	0.108*** (0.032)	0.036*** (0.019)
Observations	294	260

OLS regressions. Robust standard errors are shown in parentheses.

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TABLE 4: Good advice is ignored

	Advice			Pr(Rational)
	Accepted	Ignored	N	
Panel A: Control				
Rational to accept	279	15	294	0.949
Rational to ignore	0	14	14	1.000
Panel B: Stochastic Tr.				
Rational to accept	100	8	108	0.926
Rational to ignore	0	2	2	1.000
Panel C: Different Event				
Rational to accept	89	12	101	0.881
Rational to ignore	0	3	3	1.000
Panel D: Control vs Stochastic Tr.				
Difference in Proportions				0.023
P-value				0.373
Panel E: Control vs Different Event				
Difference in Proportions				0.068
P-value				0.019

Additional Result

1. People ignore good advice.
2. The propensity to ignore good advice depends on the nature of the task (luck vs effort).
3. The propensity to ignore good advice falls with the value of advice.
4. The previous results were confirmed in Session 2.
5. Uncertainty in the realised outcomes matter.
6. No effect of psychological traits on the propensity to ignore good advice was detected.

TABLE 5: Determinants of ignoring good advice

Average Marginal Effects	Luck		Skill	
$y = \mathbb{I}(\text{ignored good advice})$	(1)	(2)	(3)	(4)
Envy	-0.011 (0.013)	-0.013 (0.013)	0.019* (0.010)	-0.023 (0.011)
Sunk-Cost Fallacy	0.024* (0.013)	0.029* (0.016)	-0.010 (0.010)	-0.014 (0.012)
Stubbornness	0.003 (0.014)	0.002 (0.014)	0.016 (0.014)	0.018 (0.012)
Value dummies	X	X	X	X
Participant demographics	X	X	X	X
Psych. interactions		X		X
Observations	273	273	235	235

Average marginal effects are shown with standard errors in parentheses following probit regressions.

Conclusion

We show that even when all the confounds were removed:

- People ignore good advice and it is context dependant.
- People ignore good advice less when the value of the advice is higher.
- Psychological traits do not seem to explain why people ignore good advice.

Next step:

- Vary the quality of advice
- Vary the signal of the quality of advice
- Repeated interaction and reputation building

Block 1 of 5

0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 1 0 0
0 0 0 0 1 0 0 0 0 0
0 0 0 1 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0
0 0 0 1 0 0 0 0 0 0
1 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0
0 0 0 1 1 0 0 0 0 0
0 0 0 0 0 0 0 0 1 0
0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 1 0 0 0

How many 1s are there?

back

Adviser

Some time ago, another participant guessed the outcome of the same five coin tosses and then agreed to become an Adviser (allowing their answers to be offered to others, including you, as advice).

They scored 4/5 by choosing Heads-Tails-Tails-Heads-Tails.

Bonuses

They now advise you to submit Heads-Tails-Tails-Heads-Tails, instead of what you chose.

If you accept their advice, it means you get the same score as them (4/5) and you will get $4 \times \$0.50 = \2.00 . If you ignore their advice, you keep your current score (X/5) and you will get $X \times \$0.50 = \Y .

Would you like to accept or ignore their advice?

- Accept their advice
- Ignore their advice

back

Adviser

Some time ago, another participant faced the same five blocks of 0s and 1s and then agreed to become an Adviser (allowing their answers to be offered to others, including you, as advice).

They scored 4/5 by choosing 9-28-26-63-78.

Bonuses

They now advise you to submit 9-28-26-63-78, instead of what you chose.

If you accept their advice, it means you get the same score as them (4/5) and you will get $4 \times \$0.50 = \2.00 . If you ignore their advice, you keep your current score (X/5) and you will get $X \times \$0.50 = \Y .

Would you like to accept or ignore their advice?

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They scored 4/5 by choosing Heads-Tails-Tails-Heads-Tails.

Bonuses

They now advise you to submit Heads-Tails-Tails-Heads-Tails, instead of what you chose.

If you accept their advice, it means you get the same score as them (4/5) which gives you a 4-in-5 (80%) chance of a \$2.50 bonus payment. If you ignore their advice, you keep your current score (X/5) which gives you X-in-5 ($X/5 \times 100 = Y\%$) chance of a \$2.50 bonus payment.

Would you like to accept or ignore their advice?

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- Ignore their advice

back

Adviser

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They scored 4/5 by choosing Heads-Tails-Tails-Heads-Tails.

Later, we tossed the coin five more times and the outcomes of all five tosses happened to be exactly the same as in the initial five tosses.

Bonuses

Your bonus depends on whose guesses you submit for the later five tosses: yours or the Adviser's.

They now advise you to submit Heads-Tails-Tails-Heads-Tails, instead of what you chose.

If you accept their advice, it means you get the same score as them (4/5) and you will get $4 \times \$0.50 = \2.00 . If you ignore their advice, you keep your current score (X/5) and you will get $X \times \$0.50 = \Y .

Would you like to accept or ignore their advice?

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back

Dispositional Envy Scale (Smith et al., 1999)

1. I feel envy every day.
2. The bitter truth is that I generally feel inferior to others.
3. It doesn't frustrate me to see some people succeed easily.
4. Feelings of envy rarely torment me.
5. No matter what I do, envy always plagues me.
6. I am rarely troubled by feelings of inadequacy.
7. It somehow doesn't seem fair that some people seem to have all the talent.
8. The success of my neighbors doesn't make me resent them.

[back](#)

SCF (Ronayne, Sgroi & Tuckwell, 2021)

1. You have been looking forward to this year's Halloween party. You have the right cape, the right wig, and the right hat. All week, you have been trying to perfect the outfit by cutting out a large number of tiny stars to glue to the cape and the hat, and you still need to glue them on. On the day of Halloween, you decide that the outfit looks better without all these stars you have worked so hard on.
2. You have been asked to give a toast at your friend's wedding. You have worked for hours on this one story about you and your friend taking drivers' education, but you still have some work to do on it. Then you realize that you could finish writing the speech faster if you start over and tell the funnier story about the dance lessons you took together.
3. You are painting your bedroom with a sponge pattern in your favorite color. It takes a long time to do. After you finish two of the four walls, you realize you would have preferred the solid color instead of the sponge pattern. You have enough paint left over to redo the entire room in the solid color. It would take you the same amount of time as finishing the sponge pattern on the two walls you have left.
4. You have invested a good deal of your time into a project and it is failing. You have the option to start on something different that you now know is more likely to be successful but you know you cannot get the time back that you spent on the project.
5. You have an investment strategy that you have developed over several months. It is not working and you are losing money, but there is no way for you to recover the lost effort put into developing the strategy.
6. Your relationship with your partner is not going well. You have reasoned it out and you have realized that if you knew how it would go when you started the relationship you would not have gone through with it. You now have the opportunity to break up, but you have been together for many months.
7. You have been thinking about how to vote in an election and have invested a good deal of your time to try and make the right decisions including reading newspapers and comment pieces online and thinking hard about the issues. You discover that much of the information you were using is false and a more trustworthy source suggests your initial view was wrong.
8. You have been thinking hard about the best route to get to somewhere you haven't been to before. Unfortunately, your internet connection isn't working so you have to base your decision on your beliefs about the town's layout. You come to a conclusion on the best possible route but then suddenly the internet is back online.

Stubbornness Scale (Wilkins, 2015)

1. I do something I want to do even if no one else wants to do it.
2. I never keep at an idea (or plan) when I know I am wrong.
3. When others present an idea, I tend to point out all the reasons it won't work.
4. I agree to or commit half-heartedly to others' requests, when I know all along that I'm going to do something entirely different.
5. I visibly feel anger, frustration, or impatience when others try to persuade me of something I don't agree with.

[back](#)

Cheating Argument

- **An individual** feeling guilty about breaking the “rules of the game” by using answers other than their own: not a direct concern for our experiment as the design explicitly allows people to consider adopting advice and makes it clear that doing so is not breaking any experimental rules.
- **Participant** feels that using someone else’s answers breaks some social norm: our experiment would report that 90% of subjects elected to “cheat”, by adopting good advice (too high as compared to the literature.)

Value of advice matters

TABLE 6: The effect of Value of the Advice-taking Behaviour ($\text{value} \geq 0$)

$y = \mathbb{I}(\text{ignored good advice})$	(1)	(2)	(3)
Value	-0.042*** (0.011)	-	-0.042*** (0.011)
Task			
<i>Stochastic Tr.</i>	-	0.023 (0.028)	0.021 (0.028)
<i>Future Event</i>	-	0.068** (0.034)	0.067* (0.034)
Constant	0.140*** (0.027)	0.121*** (0.026)	0.051*** (0.013)
Observations	504	504	504