Thinking About Effectiveness
More from the 80,000 starter guide

Middlebury Effective Altruism

Slides available on go/easlides

Fall 2022
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Top three career facts

1. You will spend more time on your career than everything except sleep.
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1. You will spend more time on your career than everything except sleep.
2. You will have a much bigger impact on the world in some career than others.
Top three career facts

1. You will spend more time on your career than everything except sleep.
2. You will have a much bigger impact on the world in some career than others.
3. We live in a time where there are many pressing issues, and one where one person can make a lot of difference.
80,000 hours’s four career rules

1. Solve a pressing issue: Something with scale and understaffed
80,000 hours’s four career rules

1. Solve a pressing issue: Something with scale and understaffed
2. Find a more effective solution
80,000 hours’s four career rules

1. Solve a pressing issue: Something with scale and understaffed
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Your career is important

80,000 hours’s four career rules

1. Solve a pressing issue: Something with scale and understaffed
2. Find a more effective solution
4. Find work that suits you.
Impact can be measured

- This might feel obvious, but it’s worth thinking about.
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- One of the key drivers behind the scientific revolution is that the physical world around us can be studied through experiments.
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- One of the key drivers behind the scientific revolution is that the physical world around us can be studied through experiments.
- So it’s worth re-iterating this again: Your career impact can be measured.
Day to day examples

- If you stop using plastic bags for the rest of your life, you reduce your carbon footprint by about 100kg.
- If you take one less round trip flight to London, you reduce your carbon footprint by 1400kg.
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- If you take one less round trip flight to London, you reduce your carbon footprint by 1400kg.
Drug Abuse Resistance Education: 10 million dollars annual budget, doesn't work at all.

Scared Straight: Every dollar spent caused $200 worth of damage
Policy examples: The number one graph [link]
### Effectiveness

**Being good at your job matters** [link]

<table>
<thead>
<tr>
<th>Field &amp; outcome</th>
<th>Source</th>
<th>Share of output from the top...</th>
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<tr>
<td></td>
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</tr>
<tr>
<td>Output in “low” complexity jobs among applicants e.g. mail carrier</td>
<td>Hunter, Schmidt, &amp; Judiesch 1990</td>
<td>51%</td>
</tr>
<tr>
<td>Output in &quot;medium&quot; complexity jobs among applications e.g. cook</td>
<td>Hunter, Schmidt, &amp; Judiesch 1990</td>
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<td>Papers coauthored by mathematicians with at least 133 publications</td>
<td>Clauset et al. 2009</td>
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<td>Sinatra et al. 2016</td>
<td>39%</td>
</tr>
<tr>
<td>Weeks in Billboard Hot-100 (1970-2018) by musician, among artists with at least 282 weeks in these charts</td>
<td>Tauberg 2018</td>
<td>35%</td>
</tr>
<tr>
<td>Box Office Gross by US top-200 movie director</td>
<td>Tauberg 2018</td>
<td>40%</td>
</tr>
<tr>
<td>Citations to scientists (whole career)</td>
<td>Sinatra et al. 2016</td>
<td>51%</td>
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<tr>
<td>Income (worldwide, 2005)</td>
<td>Anand &amp; Segal 2014</td>
<td>21%</td>
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<tr>
<td>Weeks on NYT Fiction Bestseller list by author with at least 6 weeks on that list</td>
<td>Tauberg 2018</td>
<td>76%</td>
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<tr>
<td>Startup founder equity by company, among Y Combinator companies</td>
<td>80,000 Hours 2014</td>
<td>&gt;80%</td>
</tr>
</tbody>
</table>
Being good at your job matters

- Replacing a teacher from the bottom 5% with one from the top 5% results in an additional 1.4 million worth of earnings for the average classroom.
How to define social impact

- “Your social impact is given by the number of people whose lives you improve and how much you improve them, over the long term.”
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- “Your social impact is given by the number of people whose lives you improve and how much you improve them, over the long term.”
- “Social impact is about promoting total expected wellbeing — considered impartially, over the long term — without sacrificing anything that might be of comparable moral importance”
Two ways to have more social impact

- Helping people to a greater degree
- Helping more people
Promoting well-being

- “Promoting” implies a positive action.
- When thinking about ethical behaviors we often think about stuff that we *should not do.*
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- Physical well-being (i.e., life expectancy)
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  - Happiness (Are you living the best possible life for you?)
  - Fulfillment
  - Hope
  - Sense of autonomy/freedom
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- How do we trade off different forms of well-being with each other?
Total expected well-being

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- Suppose you can save only one of two people drowning in a lake, who are of the same age. One of which, if you save, will go on and save 10 other people throughout their lifetime. The other will go on to save 100 other people throughout their lifetime.
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- Small diversion to talk about scope insensitivity.
“Once upon a time, three groups of subjects were asked how much they would pay to save 2,000 / 20,000 / 200,000 migrating birds from drowning in uncovered oil ponds. The groups respectively answered $80, $78, and $88”
Scope insensitivity

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We do a very bad job at conceptualizing large numbers.
Expected value

\[ E[X] = \int_{\Omega} xp(x) dx \]
Expected value

- $E[X] = \int_\Omega xp(x)dx$
- Fancy average
Expected value

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- If I have a large number of college students who have an expected lifetime earnings of $5 million dollars each. The idea is that, after they die, I could average their actual lifetime earnings, it should come down to about $5 million each.
**Expected value**

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- Fancy average

If I have a large number of college students who have an expected lifetime earnings of \$5 million dollars each. The idea is that, after they die, I could average their actual lifetime earnings, it should come down to about \$5 million each.

Suppose that I’m a good teacher, then maybe I could increase their expected earnings to \$6 million dollars.
Expected value with discrete choices

- In the case with lifetime earnings, expected impact makes a lot of sense because there is a continuum of possibilities.
Expected value with discrete choices

- In the case with lifetime earnings, expected impact makes a lot of sense because there is a continuum of possibilities.
- Now think about this scenario: You have a group of 20 people sitting in a room.

We are going to flip a coin. If it comes up as heads, everyone dies. If it comes up as tails, no one dies.

Suppose you worked really hard and changed the rules. Now you have to flip two coins, and everyone dies if and only if the two coins both come up as heads.

Before, ten people are expected to die. Now, only five people are expected to die.

Did I save five lives?
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- Before, ten people are expected to die. Now, only five people are expected to die.
- Did I save five lives?
Follow up on scope insensitivity from Dickert et al. (2015)

- “If I look at the mass I will never act. If I look at one, I will.” - Mother Teresa

- Emotions like sympathy and compassion are stronger when it is easy to visually attend to or mentally imagine the victims.

- Genevsky et al. (2013) finds that when they are shown a photo of the victim as opposed to a silhouettes the reward centers of their brains are activated.

- In fact, telling participants that people tend to “react more strongly to specific people who have problems than to statistics about people with problems” lower their donations in the case where a specific individual (Small et al., 2007).
The original Boyle et al. (1994)

“In 1989, for example, about 2000/20,000/200,000 migratory waterfowl died in these holding ponds. This was less than 1 percent of the 8.5 million migratory waterfowl in the Central Flyway. The affected migratory waterfowl include: mallard ducks, pintail ducks, white-fronted geese, snow geese, and greater sandhill cranes.”

- The paper doesn’t actually give the questionnaire
October 27

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- ”This is outrageous”
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- The paper doesn’t actually give the questionnaire

- I think the idea is that they are covering ponds of oil that birds would drown in.
### Results table

**TABLE II**

Descriptive Statistics for Experimental Treatments\(^a\)

<table>
<thead>
<tr>
<th></th>
<th>2000 birds</th>
<th>20,000 birds</th>
<th>200,000 birds</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td>$80</td>
<td>$78</td>
<td>$88</td>
</tr>
<tr>
<td><strong>Standard deviation</strong></td>
<td>11</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td><strong>Median</strong></td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td><strong>Mode</strong></td>
<td>0</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>Range</strong></td>
<td>0–1550</td>
<td>0–1000</td>
<td>0–1000</td>
</tr>
<tr>
<td><strong>Shapiro–Wilk statistic(^b)</strong></td>
<td>0.43</td>
<td>0.60</td>
<td>0.54</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>288</td>
<td>286</td>
<td>281</td>
</tr>
</tbody>
</table>

\(^a\)Outliers removed from data.

\(^b\)This test statistic indicates that these distributions are not normal.
Follow up on happiness and money

**Figure:** I saw this pic on a CNBC article and I had to include it.
Jebb et al. (2018)

- Gallup world poll using 1.7 million respondents worldwide
- In North America, life evaluation maxed out at $105,000, positive affect maxed out at $65,000, and negative affect on $95,000.
Clingingsmith (2016)
Go forth and discuss

- When it comes to the future, what do you worry about the most?
- What is most holding you back? What are your biggest bottlenecks?
- What is the biggest mistake you’ve made in the last 6 months? Have you successfully changed the default path of the world such that such a mistake is very unlikely to happen again?
- Suppose you leave this conversation with some concrete action points that are obviously good ideas that will majorly improve your life. What are they? Make them concrete and give deadlines.
- Are you procrastinating on anything?
- What is the best and worst thing in your life right now?
- What important truth do very few people agree with you on?
- What is the best compliment you have ever received?
- Do you trust people more if they’re socially awkward?
- Do you get overly affected by social validation?
- What is the most important social pressure that you feel you had to constantly resist?
Resources
Bibliography I


