

# Aggregation

PHIL 334: Pandemic Ethics

## Ethics and the Attention Economy

Thursday, March 25th 12:15-1:15pm  
Pacific Time

Clinton Castro (Florida International University) and Adam Pham (Caltech)

They will discuss their paper "Is the Attention Economy Noxious?"



## Contents:

Review: Fair Innings  
The Many & the Few  
Fairness & Lotteries  
Distribution

## Review: Fair Innings

## Utilitarian Ageism

Suppose you have to choose between giving the life-saving drug to:

- (A) a **20-year old** (who will live for **many years** if she gets the drug)
- (B) a **70-year old** (who will live for only a **few more years** if she gets the drug)

What should you do?



### Utilitarian Ageism:

"Saving a person who has many years ahead of her **does more good**. ... Since younger people have greater life expectancies, discriminating in favour of them is justified on **benefit-maximizing** grounds."

## Utilitarian Ageism

Suppose you have to choose between giving the life-saving drug to:

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What should you do?



### Utilitarian Ageism:

"Saving a person who has many years ahead of her **does more good**. ... Since younger people have greater life expectancies, discriminating in favour of them is justified on **benefit-maximizing** grounds."

**Hypothesis 1:**  
Age matters because  
life-expectancy  
matters.

## Age & Fairness

Suppose you have to choose between giving the life-saving drug to:

- (C) a **20-year old** (who will live for **10 more years** if she gets the drug)
- (D) a **70-year old** (who will live for **10 more years** if she gets the drug)

What should you do?



## Age & Fairness

Suppose you have to choose between giving the life-saving drug to:

- (C) a **20-year old** (who will live for **10 more years** if she gets the drug)
- (D) a **70-year old** (who will live for **10 more years** if she gets the drug)

What should you do?



**Hypothesis 2:**  
It's (all else equal)  
better to prioritize the  
young.

## How Does Age Matter?

Suppose you have to choose between giving the life-saving drug to:

- (E) a **30-year old** (who will live for **10 more years** if she gets the drug)
- (F) a **40-year old** (who will live for **10 more years** if she gets the drug)

What should you do?

Doesn't the 30-year old patient have a complaint if she is not given priority compared to the 40-year old patient? After all, she has had less life than the 40-year old. Isn't that unfair?

## How Does Age Matter?

Suppose you have to choose between giving the life-saving drug to:

- (E) a **30-year old** (who will live for **10 more years** if she gets the drug)
- (F) a **40-year old** (who will live for **10 more years** if she gets the drug)

What should you do?

Doesn't the 30-year old patient have a complaint if she is not given priority compared to the 40-year old patient? After all, she has had less life than the 40-year old. Isn't that unfair?

**Verdict:**  
We shouldn't privilege **E** over **F**.

~~Hypothesis 2:  
It's (all else equal)  
better to prioritize the  
young.~~

Hypothesis 3:  
We should de-prioritize  
those who've been given  
their **Fair Innings**.

## The Fair Innings Argument

John Harris

1. There is some number of years that constitutes a reasonable life: a **fair innings**.
2. It is always a **misfortune** to die when one wants to go on living.
3. It is not a **tragedy** to die in old age.
4. It is **both** a tragedy and a misfortune to be cut off before reaching old age.
5. We should, all else being equal, choose mere **misfortune** over **both**.

## The Mile Running Analogy

Similarly, much that is valuable in life does not accumulate like steps taken toward the mile. The full value that bringing up children, or writing a book, or undertaking some important project brings to a life only appears at their completion. If these plans and projects cannot be completed, you lose more than the value they would bring in the time until their completion. **You lose the value of the whole, completed project.** That value cannot be 'decomposed' and distributed between different phases of the project. This is why a complete life is valuable. Death at the end of a complete life is **regrettable**, but not a **tragedy**. **Death before a life can be complete is a tragedy.**

## Fair Innings

Suppose you have to choose between giving the life-saving drug to:

- (E) a **30-year old** (who will live for **10 more years** if she gets the drug)
- (F) a **40-year old** (who will live for **10 more years** if she gets the drug)

What should you do?

Neither patient has been given **Fair Innings**.

“Death at the end of a complete life is regrettable, but not a tragedy. Death before a life can be complete is a tragedy.”

In this case, no matter what we do, it is a **tragedy**.

**Age matters, but only when some of been given their **Fair Innings**.**

## Fair Innings

Suppose you have to choose between giving the life-saving drug to:

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- (F) a **40-year old** (who will live for **10 more years** if she gets the drug)

What should you do?

Suppose you have to choose between giving the life-saving drug to:

- (C) a **20-year old** (who will live for **10 more years** if she gets the drug)
- (D) a **70-year old** (who will live for **10 more years** if she gets the drug)

What should you do?

All else equal, we should choose mere **misfortune** over both **misfortune** and **tragedy**.

## Fair Innings?

Suppose you have to choose between giving the life-saving drug to:

- (G) a **30-year old** (who will live for **10 more years** if she gets the drug)
- (H) a **60-year old** (who will live for **10 more years** if she gets the drug)

What should you do?

Neither patient has been given **Fair Innings**.

“Death at the end of a complete life is regrettable, but not a tragedy. Death before a life can be complete is a tragedy.”

## Fair Innings?

Suppose you have to choose between giving the life-saving drug to:

(G) a **30-year old** (who will live for **10 more years** if she gets the drug)

(H) a **60-year old** (who will live for **10 more years** if she gets the drug)

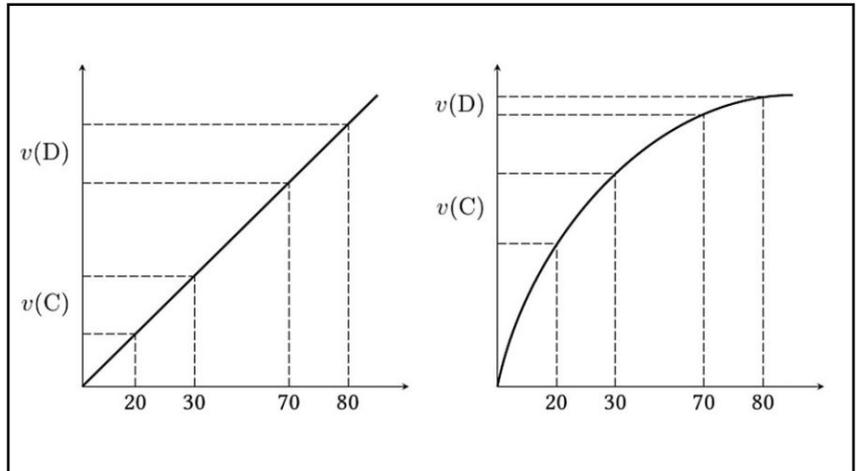
What should you do?

Neither patient has been given **Fair Innings**.

"Death at the end of a complete life is regrettable, but not a tragedy. Death before a life can be complete is a tragedy."

In this case, if you choose **H**, one person will be given Fair Innings; but, if you choose **G**, neither will be given Fair Innings.

Should you then choose **H**?



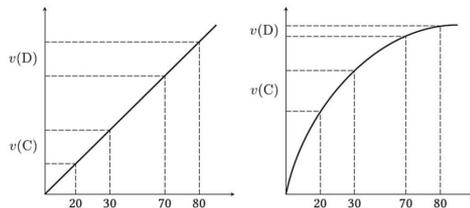
## Prioritarian Ageism

Verdicts:

- (A) > (B)
- (C) > (D)
- (E) > (F)
- (G) > (H)

**Prioritarian Ageism:**

The marginal value of additional life-years decreases as one ages.

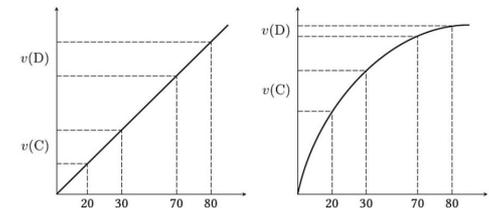


## Prioritarian Ageism

Verdicts:

- (A) > (B)
- (C) > (D)
- (E) > (F)**
- (G) > (H)

But we didn't think we should prioritize the **30-year old** over the **40-year old**!



# Aggregation: The Many and the Few

## Toothaches Vs Appendicitis

**Intervention:**  
Tooth capping

**Expected Health Benefit:**  
0.32 QALYs

**Cost:**  
\$38.10



**Intervention:**  
Appendectomy

**Expected Health Benefit:**  
46.56 QALYs

**Cost:**  
\$5,744.00



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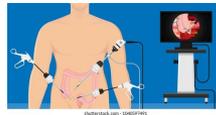


**Cost-effectiveness Ratio:** 119

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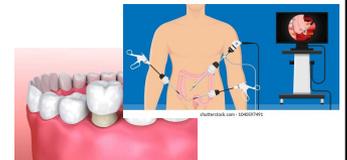
**Cost-effectiveness Ratio:** 123

## The Appendectomy/Tooth Capping Case

Suppose resources are running scarce. And suppose that very many people need **tooth cappings**, but only a few require **appendectomies**.

We don't have the resources to treat both groups.

What should we do?



We can give a **small** benefit to very **many** people, or

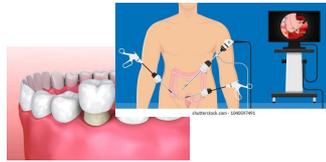
We can give a **large** benefit to very **few** people.

## The Appendectomy/Tooth Capping Case

### Aggregation Thesis:

Benefits to different people can be added up and compared across different groups

And it is morally acceptable to make ethical judgments on the basis of such interpersonally aggregated benefits.



We can give a **small** benefit to very **many** people, or

We can give a **large** benefit to very **few** people.

It can be the case that:  
**small \* many > large \* few**

A greater sum of small QALY improvements for many is better than a smaller sum of great QALY improvements for a few.

Is that true?

## The Appendectomy/Tooth Capping Case

### The Principle of Pairwise Comparison:

Find the outcome that is the least unacceptable from individual standpoints.

Compare each person's possible loss to others' possible loss in order to identify the outcome that minimizes the loss to each person.

The outcome that minimizes the maximum loss is the least unacceptable from each person's separate point of view.

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### Example

Suppose you must choose between the following:

- (A) Save David's life with an appendectomy.
- (T) Alleviate 1,000 people of toothaches by tooth capping.

What should you do?

## The Appendectomy/Tooth Capping Case

### Example

Suppose you must choose between the following:

- (A) Save David's life with an appendectomy.
- (B) Alleviate 1,000 people of toothaches by tooth capping.

What should you do?

### Aggregation Thesis (Utilitarianism):

You should choose B over A. Why? Because, in aggregate, that will do the most good.

### The Principle of Pairwise Comparison:

You should choose A over B. Why? Because saving David's life minimizes the maximum loss.

## The Appendectomy/Tooth Capping Case

### Example

Suppose you must choose between the following:

- (A) Save David's life with an appendectomy.
- (B\*) Alleviate  $n$  people of toothaches by tooth capping.

What should you do?

### Aggregation Thesis (Utilitarianism):

You should choose B over A. Why? Because, in aggregate, that will do the most good.

### The Principle of Pairwise Comparison:

You should choose A over B. Why? Because saving David's life minimizes the maximum loss.

\*What if  $n$  is really, really large?!

# The Number Problem

## The Number Problem

### The Rescue Case

Suppose you must choose between the following:

- (A) Extend the life of 1 patient by 20 years.
- (B) Extend the life of 5 patients by 20 years.

What should you do?

### Aggregation Thesis (Utilitarianism):

You should choose B over A. Why? Because, in aggregate, that will do the most good.

### The Principle of Pairwise Comparison:

You should be indifferent between A and B. Why? Because the gain and loss for each of the six patients are the same; so, extending the life of one patient is just as acceptable as extending the lives of the five.

## The Number Problem: Tie-Breaking Argument

### The Rescue Case

Suppose you must choose between the following:

- (D) Extend the life of David by 20 years.
- (E) Extend the life of Emily by 20 years.

What should you do?

### What Should You Do?

You should be indifferent between D and E.

## The Number Problem: Tie-Breaking Argument

### The Rescue Case

Suppose you must choose between the following:

- (D) Extend the life of David by 20 years.
- (E+) Extend the life of Emily by 20 years + *4 other people*.

What should you do?

### What Should You Do?

You should be indifferent between D and E.

If you remain indifferent between D and E+, you are *ignoring* the moral claims of those 4 additional people.

“Thus, by choosing to extend the lives of the five people, you recognize the claims of the four additional people and give a positive moral weight to their lives.”

### The Tie-Breaking Argument.

## The Number Problem: Tie-Breaking Argument

### The Rescue Case

Suppose you must choose between the following:

- (D+) Extend the life of David by 20 Years + *1 additional person*.
- (E+) Extend the life of Emily by 20 years + *4 other people*.

What should you do?

**The Tie-Breaking Argument** says don't ignore the moral claims of others.

### Objection:

If you choose E+ over D+, aren't you ignoring the moral claim of the additional new person?

Therefore, the argument doesn't establish that you should always choose to save the greater number.

## The Number Problem: Tie-Breaking Argument

### The Rescue Case

Suppose you must choose between the following:

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### Objection:

If you choose E+ over D+, aren't you ignoring the moral claim of the additional new person?

### Response:

Tie-breaking should be understood as *neutralizing*.

## The Number Problem: Tie-Breaking Argument

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### Response:

Tie-breaking should be understood as *neutralizing*.

### Counter-response:

This brings *aggregation* back in.

## The Number Problem: Health Benefits VS Life-Saving

### The Rescue Case

Suppose you must choose between the following:

- (A) Extend the life of 1 patient by 20 years.
- (B) Extend the life of 5 patients by 20 years.

What should you do?

### Priority to Preventing Death

*Permissible*: count the number of people whose life you can save.

*Permissible*: add up the health benefits.

*Not Permissible*: compare health improvements and the prevention of death.

## The Number Problem: Health Benefits VS Life-Saving

### The Rescue Case

Suppose you must choose between the following:

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What should you do?

### Priority to Preventing Death

*Permissible*: count the number of people whose life you can save.

*Permissible*: add up the health benefits.

*Not Permissible*: compare health improvements and the prevention of death.

**Objection 1:** Should we really spend *all* our resources on preventing deaths?

**Objection 2:** Same problem arises when death isn't at issue.

## Aggregation Problem & Number Problem

### The Rescue Case

Suppose you must choose between the following:

- (A) Extend the life of 1 patient by 20 years.
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What should you do?

### Aggregation Example

Suppose you must choose between the following:

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## Aggregation Problem & Number Problem

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### Aggregation Example

Suppose you must choose between the following:

- (A) Save David's life with an appendectomy.
- (B) Alleviate 1,000 people of toothaches by tooth capping.

What should you do?

**Not obvious that we can support both of these judgments!**

**Fair Chances**

## Questions about Rationing During COVID-19

### Question:

Should a **lottery** be used rather than some other method (at least in cases of "ties")?

## The Number Problem: Tie-Breaking Argument

### The Rescue Case

Suppose you must choose between the following:

- (D) Extend the life of David by 20 years.
- (E) Extend the life of Emily by 20 years.

What should you do?

### What Should You Do?

You should be indifferent between D and E.

So, you should flip a *fair coin* to determine where to go.

Both David and Emily have the same chance of being rescued:  $\frac{1}{2}$

## The Number Problem

### The Rescue Case

Suppose you must choose between the following:

- (A) Extend the life of 1 patient by 20 years.
- (B) Extend the life of 5 patients by 20 years.

What should you do?

### What Should You Do?

You should be indifferent between D and E.

So, you should flip a *fair coin* to determine where to go.

Each person is given the same chance of being rescued:  $\frac{1}{2}$

Fair Lottery or a  
Weighted Lottery?

## The Number Problem

### The Rescue Case

Suppose you must choose between the following:

- (A) Extend the life of 1 patient by 20 years.
- (B) Extend the life of 5 patients by 20 years.

What should you do?

### What Should You Do?

You should be indifferent between D and E.

So, you should *roll a die* to determine where to go.

Each person is assigned  $\frac{1}{6}$  chance.

But if the die favors someone on island B, you should also rescue the other people.

## The Number Problem

### The Rescue Case

Suppose you must choose between the following:

- (A) Extend the life of 1 patient by 20 years.
- (B) Extend the life of 5 patients by 20 years.

What should you do?

### What Should You Do?

You should be indifferent between D and E.

So, you should *roll a die* to determine where to go.

Each person is assigned  $\frac{1}{5}$  chance.

But if the die favors someone on island B, you should also rescue the other people.

### Objection:

This gives an unfair advantage to the people on island B.

# Prioritarianism

