What is Fairness?

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Everyone Wants Things To Be Fair

"I want to live in a society that's fair."

Barack Obama

"All I want him to do is to give me a fair shake."

Donald Trump

BUT, what is "fair"?

A Story (based on Sen, "Rational Fools")

Barry and Donald find two apples, one large, one small. Who gets the larger one?

Barry tells Donald, "You choose."

Donald picks the larger apple.

Barry is upset, and says, "That's not fair!"

"Why?" asks Donald. "Which one would you have chosen, if you were choosing?"

"The smaller one, of course," Barry says.

Donald replies, "Then what are you complaining about? That's the one you got!"

What is Fairness?

Who's right in that story? Barry or Donald?

What determines when something is "fair" or "unfair"?

Outcome?

Process?

Behavior?

How can economics methodology help us answer these questions?

Fairness of Outcomes

Perceived appropriateness of the distribution of goods, benefits, and other outcomes in a society, group, or organization

In short, equal in some dimension. But which one?

- Income or wealth?

- Utility?

- Marginal utility (or need)?

Fair Outcomes in Getting Apples

What is the fair versus unfair outcome in the story of Barry and Donald?

Since apples can't be split, there can't be equal apples

Neither division seems to violate a fairness-of-outcome criterion among possible outcomes

(we assume they value apples equally)

Barry wasn't complaining about outcomes, but about process or behavior

… and Donald was disingenuous at best in saying it was fair because Barry got the outcome he wanted

Fairness of Process

Perceived appropriateness of rules or procedures used to allocate goods, benefits, and other outcomes

- Impartiality – making judgments that are free from discrimination or "bias"

- Equality of opportunity

- "Equal treatment of equals, unequal treatment of unequals."

- Entitlement – a fair process gives people what they're entitled to

- Desert – a fair process gives people what they deserve

Fairness of Process – Entitlement and Desert

Entitlement (Nozick) – A person who acquires a holding fairly (in accordance with rules of fair acquisition or transfer) is entitled to that holding

> A rules-of-the-game concept – "If this merchandise is defective, the buyer is entitled to a full refund if returned within 60 days."

Desert – A normative or moral concept

> "All good children deserve to go to heaven."

- Someone can be entitled to something according to the rules but not deserve it

> A billionaire legally paying very low or zero taxes

- Someone can deserve something, but there is no law, institution, etc. that ensures that he or she gets it

> "All good children deserve to go to heaven."

Fair Process in Dividing Apples

None of the fairness-of-process concepts suggests that the process of dividing apples was unfair (given the indivisibility of the apples)

Barry felt there was something unfair about Donald's **behavior**, given Barry's view of how one should act in a situation like that

Are these reasonable expectations? Maybe or maybe not.

But given these expectations (and an other-regarding person could understandably have them), was Barry right to be upset about Donald's behavior?

As economists, can our tools help untangle this situation?

Fairness in Process versus Fairness in Outcomes

Let's talk about fairness in process **vs.** outcomes before returning to behavior

There are strong proponents on both sides, where a key issue is whether outcomes represent mainly effort (suggesting entitlement theories) or also a lot of (good or bad) luck (where luck includes natural endowments)

Rawls (*Justice as Fairness – A Restatement*): "Even though the initial state may have been just, and subsequent social conditions may have been just for some time, the accumulated results of many separate and seemingly fair agreements [is that] very considerable wealth and property may accumulate in a few hands and these concentrations are likely to undermine fair equality of opportunity."

Example: Funding of Schools

- Should schools spend the same on every student?
- More on the brightest and most talented, who have the greatest potential and hence are perhaps the most deserving?
- More on students with the greatest needs?
- Try to ensure minimum outcomes (minimum education level)?

How does society choose which fairness concept?

Principles Chosen in the "Original Position"

Rawls – "publicly recognized rules and procedures which those cooperating accept as appropriate to regulate their conduct" … including "the idea of fair terms of cooperation: these are terms which each participant my reasonably accept … providing that everyone else likewise accepts them …"

Principles that would be chosen *before one knows* one's circumstances

Fairness in Behavior or Conduct

a) **"Playing according to the rules"**

b) **Obligations we have towards others** (Scanlon, *What Do We Owe One Another?*")

- Responsibility given one's position or resources
- Lack of selfishness; reciprocal or altruistic behavior

This is how we *should* behave.

How (and why) do people *actually* behave the way they do?

Reciprocity

Rabin (1993): "People do not seek uniformly to help other people; rather, they do so according to how generous these other people are being."

People not only reward cooperative or kind behavior but punish uncooperative or unkind behavior and norm violations – **"Strong Reciprocators"** willing to bear the cost of rewarding or punishing even if they gain no direct benefit from their acts

How can we think of this in terms of utility maximization?

"Psychological" game – material benefits plus utility based on reciprocated (un)kindness

$$u_i = \pi_i(\cdot) + (j\text{'s kindness}) \cdot [1+(i\text{'s kindness})]$$

Kindness depends on payoff to another relative to a "reference" payoff

Battle of the Sexes

Ida prefers to go to Opera,
Jim prefers to go to Boxing,
but they prefer to go out
together to the same event

Payoff Matrix

Jim ⟶	Opera	Boxing
Ida ↓		
Opera	**2X**, **X**	**0**, **0**
Boxing	**0**, **0**	**X**, **2X**

Nash equilibrium – Each player's choice of action maximizes his utility given the other player's action: (**Opera**, **Opera**) and (**Boxing**, **Boxing**)

Jim's Payoffs from Ida's Actions

Suppose Ida *believes* Jim is choosing b_j = **Boxing**. What are Jim's best and worst material payoffs from Ida's choice a_j

$\pi_j^{high} = 2X$ – Ida does what's best for Jim and agrees to see **Boxing**

$\pi_j^{min} = 0$ – Ida says, "If he wants boxing, I'll insist on **Opera**, though it hurts us both."

$\pi_j^{low} = 2X$ – Ida says, "Why cut off my nose to spite my face? If he chooses **Boxing**, choosing **Opera** makes both of us worse off! I'll choose **Boxing** as the Pareto-efficient outcome."

Kindness Relative to a Reference Point

$$\pi_j^{equitable} = \frac{\pi_j^{high} + \pi_j^{low}}{2} = 2X \text{ is the reference point}$$

(Here, there is only one Pareto efficient choice for Ida if Jim chooses **Boxing**)

$$f_i = \frac{\pi_j(a_i, b_j) - \pi_j^e}{+\pi_j^{high} - \pi_j^{min}} = \text{normalized measure of Ida's fairness}$$

$f_i(\textbf{B}, \textbf{B}) = 0$ (as **Boxing** is Ida's only Pareto choice)

$f_i(\textbf{O}, \textbf{B}) = -1$ (she believes Jim chose **Boxing**, but she chose Opera nonetheless)

Why would she do this??

Hostile Equilibria

Jim believes that Ida is hostile – She chooses **Opera** when he believes that she knows he is choosing **Boxing** (and he is hostile since he believes she is choosing **Opera**)

Is this an equilibrium?

Ida's utility $u_i = \pi_i + f_j \cdot [1+f_i]$ where $f_j = -1$

π_i(**Opera, Boxing**) = **0** and π_i(**Boxing, Boxing**) = **X**

Her kindness payoff is **0** if she chooses **Opera** (with f_i(**O, B**)=-1) and **-1** if she chooses **Boxing** (f_i(**B, B**)=0)

Hence, if **X < 1**, she chooses **Opera**, motivated by her belief that Jim is hostile

Given the (self-fulfilling) beliefs about the other's hostility, each player is unwilling to cooperate if it means conceding to the other player

Cooperative Equilibria

A belief that the other is willing to cooperate is also self-reinforcing

(**Boxing**, **Boxing**) is a cooperative fair behavior equilibrium

(**Opera**, **Opera**) is a cooperative fair behavior equilibrium

Helping the other is helping myself, given the structure of the game,
        so it's not intuitively surprising that fairness leads to good behavior

Back to Barry and Donald

Suppose the large apple is worth 2X and the small one X to both boys.

Donald would give payoffs of (**X**,**2X**) if he chose and Barry would give payoffs of (**X**,**2X**) if he chose

Moreover, Barry believes that fairness is giving the larger share to the other, i.e., the equitable payoff π_j^e = **2X**

Hence, Barry views his behavior as the norm, neither kind nor unkind: $\pi_j(a_i) - \pi^e$ = **2X**-**2X** = 0 (and $f_{Barry} = 0$)

And, the Donald?

If we presume he knows Barry's beliefs about fairness (π_j^e = **2X**), Donald is unkind

A material payoff of **X** to Barry implies that Donald's fairness f_{Donald}(**You Choose, Larger Apple**) is negative, which is why Barry is upset

Hence Barry's "kindness utility" $f_{Donald} \cdot [1+f_{Barry}] < 0$ and if **X** (his material payoff from the smaller apple) is small enough, it doesn't compensate him and his overall utility is lower

Donald's reply, "Then what are you complaining about? That's the one you got!" misses the point (and is disingenuous at best, given what we presume that Donald knows)

The "Dictator" Game

- Apple story is a special example of a one-shot "dictator game" – one player chooses how much of a pot of resources to keep for himself and how much to give to the other

  In the lab, 30-40% of proposers share some of pot

  In apple story, there is an earlier stage of choosing who is the dictator

- Drazen and Ozbay (2016) studied this general issue – How does being chosen to decide affect generosity?

- Group of 3: 2 candidates and one "voter"

  Election treatment – voter chooses one candidate who then decides how to allocate resources

  Appointment treatment – one candidate is chosen at random to decide how to allocate resources

Choosing Who Chooses

- Drazen and Ozbay (2016) – The generosity of the chooser in the laboratory depends on how he was chosen

- Elected choosers are

  more likely to share

  give more when they share

  favor the voter

    while appointed leaders treat "voter" and losing candidate more equally

- Reciprocity towards those who put the leader in office

  Should reciprocity be expected by voters?

Why Do We Care?

- **Unfairness bothers us**

- **Society is one of interdependence and depends on implicit cooperation**

  If people have the notion that things are unfair, benefits of society break down

- **Certain types and especially degrees of inequality eat away at the structure of society**

Our Contribution as Economists

- The main goal of this lecture was not meant to convince to be nice or fair to others

  If it did, that's terrific!

- The goal was to argue how economic analysis can help us understand phenomena – in this case, fair behavior

- **Our contribution is in showing how our tools can help address policy problems**

- Not only, for example, what kind of health care policy we want …

  … but also perceptions of the fairness of those policies and why voters may be legitimately (or perhaps not) unhappy with those policies (even if those policies are supposed 'good for them')

Thank you for your attention!