

Brams and Taylor (1996)

- Set forth explicit criteria that characterize different notions of fairness in “fair” division.
- Evaluate the property of *envy-freeness* to a central place in fair division.

“An envy-free division is one in which every person thinks he or she received the largest or most valuable portion of something and hence does not envy anyone else.”

Brams and Taylor (1995)

Principles for Fairness

Envy Free = no one person envies any other person's allocation

Efficiency = Pareto Optimal, or there is no other allocation that is better for one and not worse for another.

Entitlements = If one or more persons have greater a priori claims than others, this should be reflected in a procedure for fair division.

Truthfulness = The procedure engenders truth telling about preferences.

Equitability = Equality of *announced* valuations. (Did you receive, according to your assignment of values to items, exactly what your counterparts received?)

- No fair division procedure is known that simultaneously satisfies:
 - Envy-freeness
 - Efficiency
 - Truthfulness
 - Equitability
- An Adjusted Winner (AW) procedure exists that produces efficient, envy-free, equitable settlements, but does not guarantee truthfulness.
- This AW procedure is exactly the procedure Raiffa promotes in Lectures on Negotiation Analysis!
- Brams and Taylor's book "*The Win-Win Solution*" offers some cute examples of the AW procedure.

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15.067 Competitive Decision-Making and Negotiation
Spring 2011

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