

The Theory of Choice



Lectures in Microeconomics-Charles W. Upton



Theory of Choice

- Basic Model of Choice



The Theory of Choice

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- Basic Model of Choice
- Some Simple Illustrations



The Theory of Choice

The Basic Model

- Suppose an individual is asked to choose among the following



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The Basic Model

- Suppose an individual is asked to choose among the following

Basket "A"

3 Apples
2 Bananas

Basket "B"

2 Apples
3 Bananas

Basket "C"

1 Apple
4 Bananas



The Theory of Choice

The Basic Model

- Suppose an individual is asked to choose among the following

Basket "A"

3 Apples
2 Bananas

Basket "B"

2 Apples
3 Bananas

Basket "C"

1 Apple
4 Bananas

- We make some basic assumptions about how the choice will be made



The Theory of Choice

Assumption of Completeness

- *I prefer Basket A to Basket B*

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- *I prefer Basket B to Basket A*

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- *I prefer Basket A to Basket B*
- *I prefer Basket B to Basket A*
- *I am indifferent. The two are equally attractive.*

Assumption of Completeness

- *I prefer Basket A to Basket B*
- *I prefer Basket B to Basket A*
- *I am indifferent. The two are equally attractive.*
- *I don't know*
- *Neither*

Assumption of Transitivity

- If A is preferred to B and
- B is preferred to C
- Then A is preferred to C

More is Better than Less

- If Basket A contains more than Basket B, then A is preferred to B

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$$A > B$$

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Utility Functions

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- The function gives the “utility” for different combinations of (say) apples and bananas
- If $U(A_1, B_1) > U(A_2, B_2)$
 (A_1, B_1) is preferred to (A_2, B_2)

An Example

$$U = AB$$

Utility from Different Baskets			
Choice	Apples	Bananas	Units of Utility
A	4	1	4
B	2	2	4
C	3	3	9
D	3.5	4	14

An Example

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$$D > C > B = A$$

Modifying the Example

$$U = (AB)^2$$

Utility from Different Baskets			
Choice	Apples	Bananas	Units of Utility
A	4	1	16
B	2	2	16
C	3	3	81
D	3.5	4	196

$$D > C > B = A$$

Ordinality

- $U(\text{Basket A}) = 10$
- $U(\text{Basket B}) = 7$

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Period!

End

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