CH 16 – Consumer Decisions

ECON 1B

CSUS

Assumptions Behind Consumer Choice

(1) Consumers always choose the highest valued alternative.

(2) One good can be substituted for another.

(3) Decisions are made without perfect information.

(4) The Law of Diminishing Marginal Utility limits consumption.

(1) Consumers always choose the highest valued alternative.

Domino's breakfast pizza >

grasshoppers

and noodles >

pork brains in milk gravy

(2) One good can be substituted for another

- Think of what you do when you go grocery shopping.
- We would like to buy everything, but with a budget, we have to pick and choose.

(3) Decisions are made without perfect information

- Consumers could be well-informed but not have perfect information.
- Perfect information would require knowledge about all other buyers and sellers, all products, correct probability distribution on all future events for everything.
  - Nearly Impossible

Total and Marginal Utility

- Total utility
  - Overall amount of happiness from all consumption
  - Most of the time, total utility is directly related to consumption.
- Marginal utility
  - Additional utility gained from consuming one more unit of a good or service
  - Recall "marginal" = "additional"
  - For most consumption that we rationally choose to do, marginal utility is positive

Utility Theory

- Marginal Utility
  - The change in total utility due to a one-unit change in the quantity of a good or service consumed.

$$\text{Marginal utility} = \frac{\text{change in total utility}}{\text{change in number of units consumed}}$$

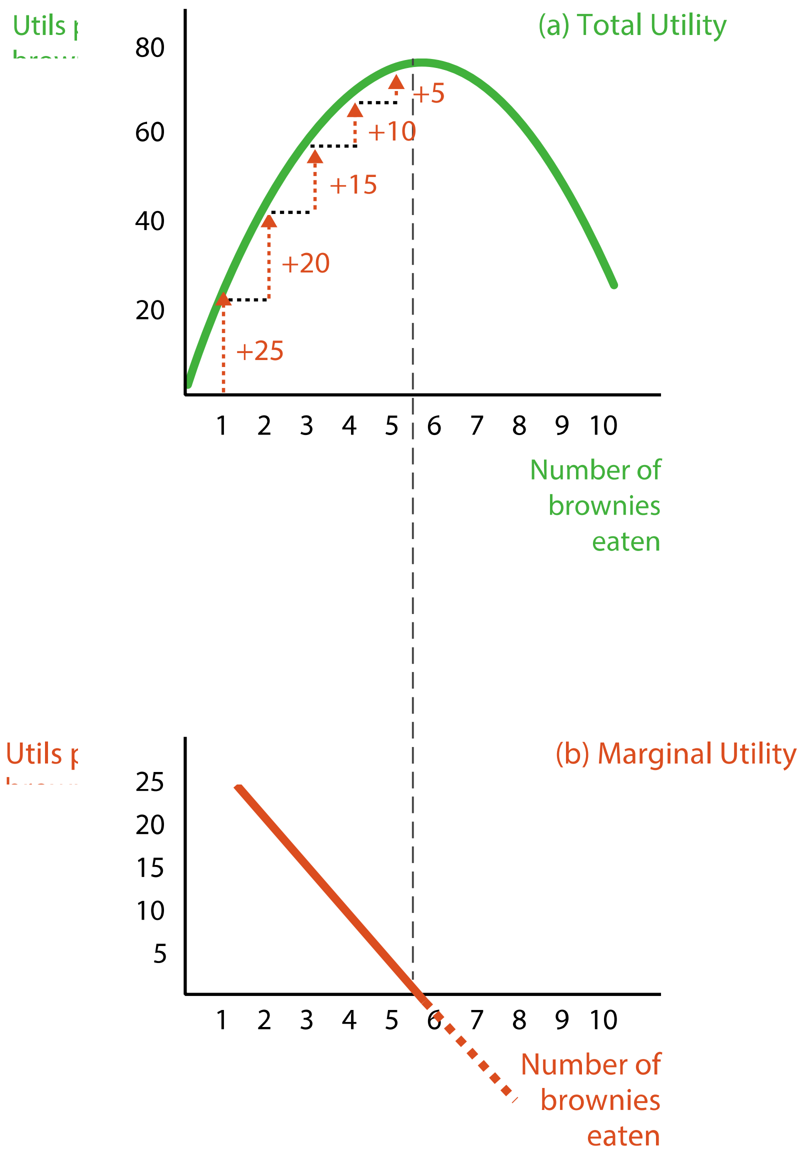
(4) More of a good thing isn't always better

Too much
Pepsi!

(4) Diminishing Marginal Utility

- Diminishing Marginal Utility - The principle that as more of any good or service is consumed, its extra benefit declines
  - Increases in total utility from consumption of a good or service become smaller and smaller as more is consumed during a given time period
- Think of your favorite food, why don't you just consume that all of the time?

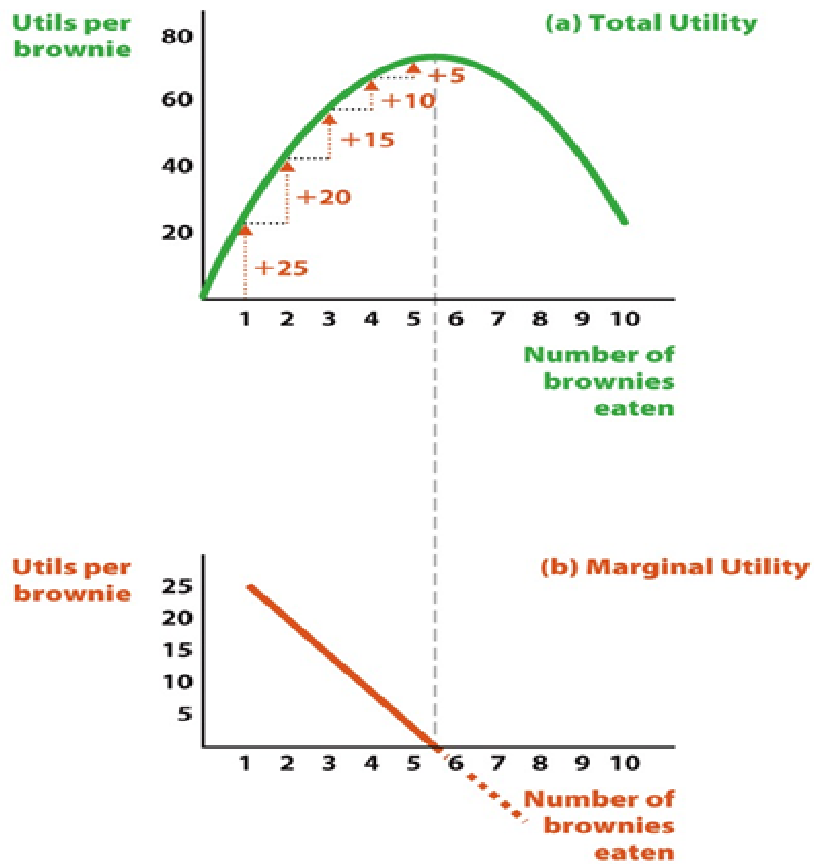
Total and Marginal Utility



Total and Marginal Utility

Total Utility and Marginal Utility

Number of brownies eaten	Total utility (utils per brownie)	Marginal utility (utils per brownie)
0	0	
		25
1	25	
		20
2	45	
		15
3	60	
		10
4	70	
		5
5	75	
		0
6	75	
		−5
7	70	
		−10
8	60	
		−15
9	45	
		−20
10	25	



Optimizing Consumption Choices

- A little math
  - **The rule of equal marginal utilities per dollar spent**

$$\frac{MU \text{ of good A}}{\text{price of good A}} = \frac{MU \text{ of good B}}{\text{price of good B}} = \ldots = \frac{MU \text{ of good Z}}{\text{price of good Z}}$$

  - **An individual will increase her rate of consumption of a product as long as the MU exceeds the opportunity cost.**

Maximizing Utility

PIZZA	**Pepsi**
20	**9**
16	**8**
12	**7**
8	**6**
4	**4**
0	**3**
-4	**2**
-8	**1**
-16	**0**
Where: pizza costs $2/slice and Pepsi costs $1/can, values represent MU.	

The values in the table are expressed in utils, a measure that captures the satisfaction a person receives from consuming an additional unit.

Suppose you have $10 to spend, how can you maximize your satisfaction?

How a Price Change Affects Consumer Optimum

- The Principle of Substitution
  - Consumers and producers shift away from goods and resources that become relatively high priced in favor of goods and resources that are now lower priced
- Real-Income Effect
  - The change in people's purchasing power that occurs when, other things being constant, the price of one good that they purchase changes.
- Let's revisit the Pizza/Pepsi example, and assume Pizza now costs $1/slice

The Demand Curve Revisited

- Question
  - How is the demand curve derived? **Answer** - By assuming income, tastes, expectations, and the price of related goods are ***constant*** as the price and quantity demanded of the good changes

Conclusion

- Money may not make people happier, but it can allow them to buy more goods and services
  - Due to diminishing marginal utility, the amount of happiness gained from additional consumption will get smaller and smaller
- When maximizing utility, consumers face a budget constraint and must consider income, prices, and marginal utility
- Exogenous price changes will affect the optimal consumption bundle chosen by individuals