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TOPIC 07: ASYMMETRIC INFORMATION

I. Asymmetric Information
   a. *Asymmetric information* is when two parties don't have equal information concerning the other (e.g. lending, hiring, buying a used car, dating). Two problems occur:
   b. *Moral hazard* is when a person reacts to being chosen in an undesirable way. Being chosen (for insurance, for a job, for a relationship) means the chooser trusts that person to act a certain way. That position of trust changes the incentives and thus the trusted may act in a way that's undesirable.
      i. In moral hazard, there's an implicit ethical dilemma. The person was put in a tacit or explicit position of trust and they've betrayed that trust. You can think of moral hazard as dealing with dynamic troubles, people respond to the incentives engendered from the deal itself.
   c. *Adverse selection* has no trust issues. Adverse selection occurs when the trade itself is rigged because one party can use its information better. You can think of adverse selection as dealing with static troubles, the moment you encounter something or someone, there's already some quality you won't like.

II. Examples
   a. Mastering the difference between these two is best done with many examples.
   b. Insurance
      i. *Adverse selection*. Accident-prone individuals love insurance.
      ii. *Moral hazard*. Because they have insurance, people take more risks.
   c. Dating
      i. *Adverse selection*. Good liars or very attractive people can get dates even when the other party wants something different from the relationship.
      ii. *Moral hazard*. Knowing it's hard to untangle their lives together, spouses may be less caring and more callous.
   d. Hiring
      i. *Adverse selection*. Employers must be careful not to hire the stupid, the incompetent, the lazy, the rude, or other kinds of

people with undesirable personality traits. Such individuals are fundamentally flawed from a business perspective.

   ii. *Moral hazard*. Once employed, employers know it is expensive to fire someone. They might also discover how easy it is to get away with things employers may not like. The whole point of hiring someone, after all, is so don't have to worry about whatever task they are doing.

e. Loaning money

   i. *Adverse selection*. Irresponsible people want to borrow money so they can waste it. Irresponsible people rarely think of themselves as irresponsible.

   ii. *Moral hazard*. Banks want to make sure that person remains the right person after they get their money. No longer needing to impress the bank, borrowers may act recklessly.

f. Note that moral hazard only involves choosing people because moral hazard is fundamentally an incentive story. People react to the new incentives that come from being involved.

g. Adverse selection focuses on attributes, qualities that don't change as a result of being involved. Therefore, adverse selection can involve choosing both people and things.

III. Combating Adverse Selection

a. It's sometimes tricky to distinguish between the two types of asymmetric information. One way to help highlight the difference is think of how one combats each of them.

b. Combating adverse selection involves sorting through choices before any decision is made.

   i. *Screening*—directly collecting information about possible choices to reduce the asymmetric of information.

   ii. *Signaling*—conveying meaningful information through demonstrative actions (it's a kind of screening).

   iii. *Efficiency wages*—offering a higher-than-market wage to improve the quality of the pool of candidates, thus reducing the chance of getting a bad employee

II. Combating Moral Hazard

a. The *principal-agent problem* describes the problem of moral hazard in which the person acting (the agent) is trusted by someone (the principal) to act a certain way, but the agent has an incentive to act in a way the principal would not like.

b. <u>Because</u> of information asymmetries, the agent can betray the principal and get away with it.

    i. The employer (principal) wants the employee (agent) to work hard, but the employee wants to take long lunches.
    ii. The homeowner (principal) wants the contractor (agent) to charge a normal market price, but the agent wants to rip them off.
    iii. The voter (principal) wants the lawmaker (agent) to create laws that benefit society, but the lawmaker wants to create laws that help a special interest so that group will help him get re-elected.
    iv. The teacher (principal) wants the student (agent) to take tests honestly, but the student wants get a good grade with little work and cheating is one way to accomplish that.
    v. The bank (principal) wants the borrower (agent) to pay off the loan, but the borrower wants to spend their money irresponsibly.

c. Combating moral hazard involves changing the incentives of the agent.
    i. *Efficiency wages*—these can also be used to combat moral hazard because employees fear losing their job.
    ii. *Monitoring*—watching the agent to see if they act as promised.
    iii. *Rewards/punishments*—granting bonuses for good work and demotions for poor work, etc. Collateral is an example.

d. Rewards and punishments deserve special mention because they can backfire. In general, you must remember:
    i. There's a difference between what you pay for versus what you want (remember unintended consequences).
    ii. Strong incentives might help motivate people to action, but they also might incentivize them to do something unintended.

e. *Piece rates*—payment made directly for output
    i. <u>Pro</u>: Everyone gets the benefit if everyone works harder.
    ii. <u>Con</u>: Fortunes can rise and fall due to external factors (e.g. state of the economy)
    iii. <u>Con</u>: Output may be hard to measure

f. *Tournaments*—payment for relative performance
    i. <u>Pro</u>: Corrects for external factors
    ii. <u>Con</u>: May cause workers to turn on each other or not be motivated at all if a star always outshines everyone
    iii. <u>Con</u>: Output may be hard to measure

g. *Corporate culture*—shared collection of values and norms about how people interact

i. Pro: Can cover lots of different scenarios, avoiding the hard-to-measure-output problem.

ii. Con: Cannot be precisely constructed nor controlled

1. Suppose a CEO wants employees to take more vacation days so they feel relaxed and productive, but the CEO doesn't want to take time off herself.
2. Memos the CEO writes encouraging vacations won't be taken seriously because everyone sees the CEO ignoring her own memos.
3. Furthermore, other memos the CEO writes runs the danger of not being taken seriously because employees might think of her as two-faced.