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Paul D. Halley '94

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The Story of Robert and Susan Davis(And Why They're so Damn Homest!)

Abstract

A fascinating real-world example of microeconomic theory can be used to analyze the above "Cleaver" family. The thought process behind a certain decision made by Robert and Susan represent game theory and dominant strategies. In a scandal that shook suburbia, Robert and Susan Davis each had extramarital affairs that could have led to the devastating end of a picture-perfect marriage. Decisions made by each are analyzed and predicted below using the game theory model. The adulterers each planned strategies regarding their secret love-affairs to bring about the "best" outcome for themselves. Although Robert and Susan may not have realized why they made the decisions they did, game theory can help explain how each arrived at his/her final decision.

The Story of Robert and Susan Davis (And Why They're so Damn Honest!)

by Paul D. Halley

Imagine that Robert and Susan Davis, ages 38 and 42, have been married for twenty years. The two dated in college, married after Susan's graduation and now have two kids, a six-figure income and live in Chicago's northwest suburbs. All is well for the Davises until the truth comes out about Robert, Susan, Pierre and Amanda.

A fascinating real-world example of microeconomic theory can be used to analyze the above "Cleaver" family. The thought process behind a certain decision made by Robert and Susan represent game theory and dominant strategies. In a scandal that shook suburbia, Robert and Susan Davis each had extramarital affairs that could have led to the devastating end of a picture-perfect marriage. Decisions made by each are analyzed and predicted below using the game theory model. The adulterers each planned strategies regarding their secret love-affairs to bring about the "best" outcome for themselves. Although Robert and Susan may not have realized why they made the decisions they did, game theory can help explain how each arrived at his/her final decision. To start, it is necessary to understand the backgrounds and values of the Davises.

For several months, Robert has felt that he was neglected by his wife. Although he harbors no feelings of resentment toward her, Robert has accompanied Amanda, his assistant, to many "No-tell" motels. Riddled with guilt, Robert is contemplating telling his wife of his affair. Although fearing his wife's reaction, Robert has much to gain by clearing his conscience. He does not wish to jeopardize their relationship. But, if Robert doesn't tell his wife, he must live with the guilt of his actions, thus leaving his relationship with his wife to suffer from his inability to communicate.

Susan has also fallen prey to the same desires as Robert, attaching herself to Pierre, a French chef. She too loves her spouse, and wants to keep her marriage alive. For ease in story-telling, assume Susan faces the same agonizing decision Robert does, and remember, neither Robert nor Susan knows of the other's secret.

Before analyzing the decisions made by Robert and Susan, it is extremely important that we recognize the Davis' values. They form the basis for assumptions needed to analyze their decisions and the fact that neither of the two know of the other's affair. Again, assume that Robert and Susan have identical values and place great importance upon honesty and communication. Although realizing the possibility of separation, each is contemplating telling the other of their affair, for more than anything else, each wants to clear his/her conscience and be honest to the other.

It is unrealistic to expect "happiness" in a marriage to be

measurable, but to analyze the decisions made by Robert and Susan requires some sort of happiness scale. Arbitrarily, I have chosen a scale of 1 to 10 with 1 being least happy and 10 being most happy. As you can see, if both decide to tell their other unsuspecting half, each will receive a happiness benefit of 9. Each benefits from the receiving of the other's honesty, the speaking of their own truth and the increased communication between the two. Each receives high benefits as the two can now happily begin the rest of their lives together. If each remains silent, the marriage will somehow reflect the lack of communication between the two and the pressure each feels to speak their guilty conscience, therefore, each receives a low benefit of 3.

Other cells reflect those benefits received when one spouse tells the other without reciprocation. The proclaimed adulterer is left feeling ashamed and solely responsible for the disruption between the two. If Robert tells Susan about Amanda (or Susan about Pierre), Susan will be angered, resulting in a lower rating, but she also benefits from Robert's telling of the truth and her own lessening of her guilty conscience, as Robert's unfaithfulness has somewhat abdicated her actions. By not reciprocating Robert's truth, Susan leaves Robert feeling like a home-wrecker with an extremely low rating, yet she is somewhat sympathetic towards Robert (as she slept around also), not totally abolishing Robert for his actions. Therefore Amanda receives benefits of 6, because she can now somewhat justify her actions, letting her conscience "breathe a little easier", yet not as much as if she confessed to Robert, resulting in a 9. Robert then receives a happiness rating of 4. He receives higher benefits than the 3 for not confessing, because he does clear his conscience by being honest, yet he does not receive as much as if the two both confessed and received 9's because he believes that he is the only adulterer of the two. Susan, who we still assume to have the same values and behave in the same way as Robert, receives the same benefits as Robert did above and vice versa if she tells of her affair with Pierre.

Therefore, both Robert and Susan have dominant strategies because each can optimize benefits by telling the other, regardless of what the other does. Analyzing Robert's decision, if Susan confesses, Robert receives a 9 for confessing or an 8 for not confessing. If Susan doesn't confess, he receives 5 for confessing or 3 for not confessing. Therefore, Robert should confess under any circumstances, assuming he is a happiness maximizer by choosing options with higher benefits than alternative options. The same process determines Susan's dominant strategy, as she receives benefits of 9 for confessing or 8 for not confessing if Robert tells the truth, and 5 for confessing or 3 for not confess no matter what Robert does, provided she also maximizes her happiness benefits.

This game theory model cannot be considered a prisoners' dilemma, for Robert and Susan, acting in their own self-interests

by telling the other or his/her extramarital affair, do not expect to gain more benefits than the other by telling the truth. There is no contest between the two to feel happier than the other, as both are assumed to value their egalitarian marriage. Therefore, the only incentive to tell the other is in clearing one's own conscience and being honest with the other. The Davis⁷ marriage is a partnership and neither wants to inflict pain or lower happiness benefits upon the other. If each feels that being honest is more important than keeping silent, which each does, the results of confessing will be greater than if each kept their feelings and pasts bottled up without telling a soul.

The dominant strategy equilibrium, which is also a Nash equilibrium, is for both Robert and Susan to tell each other the truth and clear their consciences. The confess-confess strategy is a Nash equilibrium because Rob should confess whether Susan confesses or doesn't confess, and similarly, Susan should confess whether Robert confesses or doesn't confess. Therefore, the strategy in the upper-left cell represents a Nash equilibrium and the outcome I would expect to occur.

diagram



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