

PREDICTABLY IRRATIONAL
Teacher's Instructions
Format: Letter from Dan (with his picture)

Dear Teachers:

Thanks for your interest in Predictably Irrational and the field of human decision-making/behavioral economics. My objective for writing accompanying lessons plans for each chapter was two-fold: 1) to expose students to behavioral economics as a discipline and improve their decision-making skills; and 2) to stimulate interest in research and human behavior through the active participation of students in experiments.

I wrote the lessons plans with flexibility in mind. First, all of the lesson plans can be adapted for advanced students and grades by requiring additional reading, larger sample sizes for the experiments, and/or statistical analysis. Second, I also wrote them as broadly as possible to be applicable for number of classes, including psychology, economics, government, and business. Third, with the exception of the Introduction and Chapter 13, each lesson plan is independent of one other, so they can be taken out of order or used individually. I do however strongly recommend assigning the Introduction before assigning any other chapter, because it will introduce the student to behavioral economics as a discipline.

I hope you enjoy using the lessons as much as I enjoyed coming up with them. In that vein, I hope you'll use your own implementation as a chance for you to experiment with what works and share with me and others your experience, ideas, and adaptations.

**Predictably irrational,
Dan Ariely**

PREDICTABLY IRRATIONAL
Introduction
Lesson Plan – DRAFT 2

Objectives

Students will:

- Learn about the field of study called behavioral economics.
- Understand the major differences between traditional economics and behavioral economics.

Materials

The class will need the following:

- Copies of the Introduction – give the chapter from the book to read as homework.
- Copies of Related Academic Papers (Optional) – give out the articles beforehand to read as homework.
 - Related Academic Papers
 - § Daniel Kahneman, Barbara L. Fredrickson, Charles A. Schreiber, and Donald A. Redelmeier, “When More Pain Is Preferred to Less: Adding a Better End,” *Psychological Science* (1993).
 - § Donald A. Redelmeier and Daniel Kahneman, “Patient’s Memories of Painful Medical Treatments—Real-Time and Retrospective Evaluations of Two Minimally Invasive Procedures,” *Pain* (1996).
 - § Dan Ariely, “Combining Experiences over Time: The Effects of Duration, Intensity Changes, and On-Line Measurements on Retrospective Pain Evaluations,” *Journal of Behavioral Decision Making* (1998).
 - § Dan Ariely and Ziv Carmon, “Gestalt Characteristics of Experienced Profiles,” *Journal of Behavioral Decision Making* (2000).

Procedures

DAY 1

1. Assign students to read Introduction for homework. Assign optional Academic Papers. Assign optional “In the News” pieces.

DAY 2 – BOOK DISCUSSION

1. Begin the lesson by asking students what they think about the Introduction. Do they agree more with the traditional economists or the behavioral economists? What interests them about this field of study?

2. Have them think of examples from their own life when they acted irrationally versus rationally.

Test Your Knowledge (Correct answers are highlighted in BOLD)

1. What is the major way in which behavioral economics differs from a traditional economics?
 - a) Behavioral economics works with more practical topics and traditional economics deals more in the abstract.
 - b) Behavioral economics assumes that there is more to the story than traditional economics and probes further into human behavior.
 - c) **Traditional economics believes that humans are capable of making the right decisions for ourselves and behavioral economics believes that humans are capable of making decisions, but often in an imperfect way.**
 - d) Traditional economics assumes that everyone is rational and behavioral economics assumes that everyone is irrational.
2. If you could be a behavioral economist for a day, what experiment would you conduct? What would you try to test? Where would you conduct it?
3. What are the major differences between traditional economics and behavioral economics? Use a story from your own life to explain your answer.
4. A woman is on a diet and gives in one night while out of town and orders a hamburger and french fries from room service. How would traditional economics explain this action? Provide two ways in which behavioral economics could explain this behavior?

PREDICTABLY IRRATIONAL

Chapter 1 – The Truth of Relativity

Lesson Plan – DRAFT 4

Objectives

Students will:

- Learn how relativity helps and also distorts the decisions in their life.
- Become more aware of its impact on their life and learn ways to improve their decision-making ability.
- Apply the lessons learned from Chapter 1 through recent newspaper articles and their own life experience
- Apply the lessons learned from Chapter 1 through an experiment.

Materials

The class will need the following:

- Copies of Chapter 1 – give the chapter from the book to read as homework.
- Copies of Related Academic Papers (Optional) – give out the articles beforehand to read as homework.

- Related Academic Papers

- § Amos Tversky, “Features of Similarity,” *Psychological Review*, Vol. 94 (1977).

- § Amos Tversky and Daniel Kahneman, “The Framing of Decisions and the Psychology of Choice,” *Science* (1981).

- § Joel Huber, John Payne, and Chris Puto, “Adding Asymmetrically Dominated Alternatives: Violations of Regularity and the Similarity Hypothesis,” *Journal of Consumer Research* (1982).

- § Itamar Simonson, “Choice Based on Reasons: The Case of Attraction and Compromise Effects,” *Journal of Research* (1989).

Consumer

- § Amos Tversky and Itamar Simonson, “Context- Dependent Preferences,” *Management Science* (1993).

- § Dan Ariely and Tom Wallsten, “Seeking Subjective Dominance in Multidimensional Space: An Explanation of the

- Asymmetric Dominance Effect,” *Organizational Behavior and Human Decision Processes* (1995).

- § Constantine Sedikides, Dan Ariely, and Nils Olsen, “Contextual and Procedural Determinants of Partner Selection: On Asymmetric Dominance and Prominence,” *Social Cognition* (1999).

- Copies of the “In the News” articles (Optional)

- Copies of the Experiment: *Visual Illusion*

- Supplies

- § Copies of Excel Spreadsheets

Procedures

DAY 1

1. Assign students to read Chapter 1 for homework. Assign Academic Papers (optional). Assign “In the News” pieces (optional).

DAY 2 – BOOK DISCUSSION

1. Begin the lesson by asking students what they think about Chapter 1.
 1. Discuss with them the effects of relativity in everyday life and how it alters our decision-making ability. Is relativity all bad? What are the advantages and disadvantages?
 2. Have them think of examples from their own life.
 3. Have them brainstorm either as individuals or in groups about solutions to these problems.
 4. If you assigned the *In the News* items, start a discussion with the students about them. If you did not assign the *In the News* items, begin by describing the articles and then start the discussion. Talk to them about how relativity can be used to better understand these real-world situations.
 5. Discuss the one or more of the optional Academic Papers.
 6. Assign the Experiment. Working individually or with partners, students will conduct the Experiment and answer the following questions:
 - What is the hypothesis?
 - What do you expect that the results will look like if the experiment is successful?
 - What do you expect that the results will look like if the experiment fails?

DAY 3 (a few days later, if possible) – EXPERIMENT DISCUSSION

1. Before class, combine the results from the individuals or teams on the excel spreadsheet provided and review the data patterns. *Alternatively, you can assign one team for each experiment to be in charge of collecting the results, analyzing them, and presenting them to the class.
2. During class, review the results. Discuss any major data patterns.
 - Was the hypothesis correct?

- As you conducted the experiment, how did it feel to know the correct answer, but watch others make mistakes because of the visual illusion?
- What did you learn from the experiment about relativity?
- What could you do to improve the experiment?
- What other versions of the experiment could be interesting to test?

In the News

Cheeseburger to Cost a Beefy £85

The Sun, May 20, 2008

<http://www.thesun.co.uk/sol/homepage/news/article1077128.ece>

Entrees Reach \$40

New York Times, October 21, 2006

<http://www.nytimes.com/2006/10/21/dining/21plate.html?em&ex=1161662400&en=45f230094ebbd16c&ei=5070>

Gilded Paychecks: Lure of Great Wealth Affects Career Choices

New York Times, November 27, 2006

<http://www.commondreams.org/headlines06/1127-09.htm>

The Web World, Rich Now Envy Superrich

New York Times, November 21, 2006

<http://www.nytimes.com/2006/11/21/technology/21envy.html?fta=y>

Pursuing Happiness

New York Times, March 29, 2000

http://www.tomcoyner.com/pursuing_happiness.htm

Test Your Knowledge (Correct answers are highlighted in BOLD)

1. An expensive restaurant has ordered too many cases of Wine X. What should the restaurant manager do?
 - a) Give every table a free glass to generate interest
 - b) Cut the restaurant's losses – reduce the price so that it's the cheapest wine on the menu

- c) Offer the wine at a slight discount, making it the second least expensive wine of wines offered on the menu**
 - d) Offer a free plate of curly cheese fries with every purchase of the wine**

- 2. The Sears catalog has just introduced a new, larger Craftsman nail gun and priced it at \$121. They already had a similar Craftsman nail gun, but it was a little smaller and priced at \$71. Based on behavioral economics, what do you expect will happen?
 - a) Customers will evaluate the nail guns based on their individual needs and total sales will be split between the two models**
 - b) Customers will be disproportionately drawn to the less expensive model**
 - c) Customers will think, “bigger is better” and decide to buy the new, slightly more expensive model and sales will increase**
 - d) The amount of choice will be too much and less people will buy nail guns overall**

- 3. All else equal, when deciding to bring a friend to a bar to help you pick up a date, you should do the following.
 - a) Bring an attractive friend who looks as though he/she could be your twin**
 - b) Bring an unattractive friend to make you look better in contrast**
 - c) Bring along friend who is similar but a slightly less attractive version of you**
 - d) Bring a friend who is drop dead gorgeous**

- 4. Which of the following might help a person make more rational spending decisions:
 - a) Think about what percentage of your current bank balance will be used for a purchase**
 - b) Think about a purchase in terms of how many hours of work it costs (at your hourly wage)**
 - c) Make a purchase only if it has been discounted**

- d) **Make a ‘mental account’ for each type of purchase, and never spend more than the mental account’s value**
5. **Consider the assertion in the news article, *The Web World, Rich Now Envy Superrich*, that it is inevitable that the more you have, the more you want. If you decided today that you wanted to resist this type of irrational behavior, what steps could you take to make this happen?**
6. **Give a real-world example where our desire to compare similar things causes us to be irrational. What ideas do you have on how we could break that cycle of irrationality?**

PREDICTABLY IRRATIONAL
Chapter 1 – The Truth about Relativity
Student Handout
Experiment – *Visual Illusion*

1. **MATERIALS**: You will be given a deck of PowerPoint slides to conduct your experiment. You will also be given an excel spreadsheet to help you conduct the experiment and collect the data. It will include a tab where you can state your hypothesis and another tab to record your results. You will submit the final excel spreadsheet to your teacher.
2. **PRE-EXPERIMENT**: Go over the details of the experiment carefully. Using the excel spreadsheet, record your hypothesis and answer the questions included in the tab.
3. **EXPERIMENT**: Go to a busy mall, a library, or any public place. Go through each slide with each respondent – starting at 1 and ending at 10. You should run through the slides with at least 20 respondents.
- Ask each respondent to look at the PowerPoint slide carefully. Have them tell you which yellow circle is bigger – the one on the left or the one on the right?**
 - Repeat this for each slide and record their response.**
 - Record their answer on your form. It is important that each person’s answer is kept confidential from the other respondents.**

4. **RECORD-KEEPING:** Once you have finished, open the Excel Spreadsheet associated with this experiment and record your answers from your form. Double-check that each response is recorded accurately. Follow your teacher's instructions about how to get the results to him or her.

PREDICTABLY IRRATIONAL

Chapter 2 – The Fallacy of Supply and Demand

Lesson Plan – DRAFT 4

Objectives

Students will:

- Learn how our first impressions and decisions become imprinted and how these imprints can alter our perspective.
- Become more aware of its impact on their life and learn ways to improve their decision-making ability, especially on purchasing behavior.
- Apply the lessons learned from Chapter 2 through recent newspaper articles and their own life experience
- Apply the lessons learned from Chapter 2 through an experiment.

***This lesson could be used in an English or Literature class while reading Mark Twain's *The Adventures of Tom Sawyer*.**

Materials

The class will need the following:

- Copies of Chapter 2 – give the chapter from the book to read as homework.
- Copies of Related Academic Papers (Optional) – give out the articles beforehand to read as homework.
 - Related Academic Papers
 - § Dan Ariely, George Loewenstein, and Drazen Prelec, "Coherent Arbitrariness: Stable Demand Curves without Stable Preferences," *Quarterly Journal of Economics* (2003).
 - § Dan Ariely, George Loewenstein, and Drazen Prelec, "Tom Sawyer and the Construction of Value," *Journal of Economic Behavior and Organization* (2006).
 - § Cass R. Sunstein, Daniel Kahneman, David Schkade, and Ilana Ritov, "Predictably Incoherent Judgments," *Stanford Law Review* (2002).

- § Uri Simonsohn, “New Yorkers Commute More Everywhere: Contrast Effects in the Field,” *Review of Economics and Statistics* (2006).
- § Uri Simonsohn and George Loewenstein, “Mistake #37: The Impact of Previously Faced Prices on Housing Demand,” *Economic Journal* (2006).
- Copies of the “In the News” articles (Optional)
- Copies of the Experiment: *What is Chocolate Worth?*
 - Supplies
 - § Copies of Excel Spreadsheets
 - § 3 pieces of lower quality chocolate (ex: Hershey’s) and 3 higher quality chocolate truffles (ex: Godiva) per group

Procedures

DAY 1

1. Assign students to read Chapter 2 for homework. Assign Academic Papers (optional). Assign “In the News” pieces (optional).

DAY 2 – BOOK DISCUSSION

1. Begin the lesson by asking students what they think about Chapter 2. Discuss with them about the impact of imprinting/anchoring. Ask in what ways it might alter their purchasing behaviors.
2. Have them think of examples from their own life.
3. Have them brainstorm either as individuals or in groups about solutions to these problems.
4. If you assigned the *In the News* items, start a discussion with the students about them. If you did not assign the *In the News* items, begin by describing the articles and then start the discussion. Talk to them about these real-world situations and how these people are impacted by imprinting/anchoring and how successful marketing can take advantage of this situation.
5. (Optional) Discuss the famous chapter in *The Adventures of Tom Sawyer*, the one in which Tom turns the whitewashing of Aunt Polly’s fence into an exercise in manipulating his friends. Tom applies the paint with gusto pretending to enjoy the job. Do you call this work? Tom tells his friends. “Does a boy get a chance to whitewash a fence everyday?” Armed with this new “information,” his friends discover the joys of whitewashing a fence. Before long, Tom’s friends are not only paying for the privilege, but deriving pleasure from the task. How does Tom get his friends to change their mind? [changing their “imprint” of what is work and what is play] Ask the students to think about other examples of this principle.
6. (Optional) Discuss the one or more of the Academic Papers with them.

7. **Assign the Experiment.** Assign the students into groups and give them the information for both conditions. Students will conduct the Experiment and answer the following questions:
 - **What is the hypothesis?**
 - **What do you expect that the results will look like if the experiment is successful?**
 - **What do you expect that the results will look like if the experiment fails?**

DAY 3 (a few days later, if possible) – EXPERIMENT DISCUSSION

1. **Before class, combine the results from the individuals or teams on the excel spreadsheet provided and review the data patterns. *Alternatively, you can assign one team for each experiment to be in charge of collecting the results, analyzing them, and presenting them to the class.**
2. **During class, review the results. Discuss any major data patterns.**
 - **Was the hypothesis correct?**
 - **What did you learn from the experiment about imprinting/anchoring?**
 - **What could you do to improve the experiment?**
 - **What other versions of the experiment could be interesting to test?**

In the News

The World's Best Chocolate: Worth the Price?

CNN, April 7, 2003

http://money.cnn.com/2003/04/16/pf/saving/q_chocolate/index.htm

Chocolate Taste Test

Money Magazine, February 14, 2007

<http://money.cnn.com/galleries/2007/moneymag/0702/gallery.chocolate/index.html>

Test Your Knowledge (Correct answers are highlighted in BOLD)

1. **The idea that demand depends on supply suggests that:**
 - a) **If we increase prices, demand will go down forever (as long as the other things do not change)**
 - b) **If we increase prices, demand will initially go up forever (as long as the other things do not change)**

- c) **If we increase prices, demand will go down less than we expect but for a longer period of time than we expect**
 - d) **If we increase prices, demand will go down less than we expect and for a shorter period of time than we expect**
2. In what way does human decision-making resemble that of a gosling?
- a) It takes time for them to learn how to swim
 - b) **First decisions become imprinted for a long time**
 - c) They need adults to teach them survival skills
 - d) They follow the first adult figure they see when they are born
3. In general, Human beings:
- a) **Are better at determining relative value than absolute value**
 - b) Are good at determining absolute value, but don't think about how different values compare
 - c) Value other people's possessions more than our own
 - d) All of the above
4. The self-herding model suggests that instead of considering only their preferences, people use:
- a) Their attitudes
 - b) Their gut feelings
 - c) **Their memories**
 - d) A cost benefit analysis
5. Imagine that you have to convince a small child to go to his or her first day of school. Keeping in mind the lessons learned from this chapter, what would be the best thing to say to this child?
6. Do you think that the internet can change the concept of imprinting/anchoring as it relates to price perceptions? Why or why not?

PREDICTABLY IRRATIONAL
Chapter 2 – The Fallacy of Supply and Demand
Student Handout
Experiment – *What is Chocolate Worth?*

1. **MATERIALS:** You will be given two types of chocolates to conduct your experiment - 3 pieces of lower quality chocolate (ex: Hershey's) and 3 higher quality chocolate truffles (ex: Godiva). You will also be given an excel spreadsheet to help you conduct the experiment and collect the data. It will include a tab where you can state your hypothesis and another tab to record your results. You will submit the final excel spreadsheet to your teacher.
2. **PRE-EXPERIMENT:** Go over the details of the experiment carefully. Using the excel spreadsheet, record your hypothesis and answer the questions included in the tab.
3. **EXPERIMENT:** Go to a busy mall, a library, or any public place and complete each condition with at least 10 respondents. It is important that you follow each condition described in the instructions carefully. It is also important that each person's answer is kept confidential from the other respondents.
 - i. **CONDITION 1:**
 1. Show the higher quality truffle to the respondent. Keep the lower quality truffle hidden from site.
 2. Ask him or her – “Hypothetically, would you purchase this chocolate truffle for 25 cents?” They will say – yes or no. Record this response.
 3. Ask him or her – “What is the maximum you would be willing to pay for this truffle?” They will give you a price. Record this response.
 4. Now, show them the lower quality chocolate.
 5. Ask him or her – “What is the maximum you would be willing to pay for this chocolate?” They will give you a price. Record this response.
 - ii. **CONDITION 2:**
 1. Show the lower quality chocolate to the respondent. Keep the higher quality truffle hidden from site.
 2. Ask him or her – “Hypothetically, would you purchase this chocolate for 5 cents?” They will say – yes or no. Record this response.
 3. Ask him or her – “What is the maximum you would be willing to pay for this chocolate?” They will give you a price. Record this response.

4. Now, show them the higher quality chocolate.
 5. Ask him or her – “What is the maximum you would be willing to pay for this truffle?” They will give you a price. Record this response.
4. **RECORD-KEEPING:** Once you have finished, open the Excel Spreadsheet associated with this experiment and record your answers from your form. Double-check that each response is recorded accurately. Follow your teacher’s instructions about how to get the results to him or her.

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PREDICTABLY IRRATIONAL
Chapter 3 – The Cost of Zero Cost
Lesson Plan – DRAFT 4

Objectives

Students will:

- Learn why people are so attracted, often irrationally, to free things.
- Become more aware of its impact on their life and learn ways to improve their decision-making ability, especially on purchasing behavior.
- Apply the lessons learned from Chapter 3 through recent newspaper articles and their own life experience
- Apply the lessons learned from Chapter 3 through an experiment.

Materials

The class will need the following:

- Copies of Chapter 3 – give the chapter from the book or the summary out the day beforehand to read as homework.
- Copies of Related Academic Papers (Optional) – give out the articles beforehand to read as homework.
 - Related Academic Papers
 - § Kristina Shampanier, Nina Mazar, and Dan Ariely, “How Small Is Zero Price? The True Value of Free Products,” *Marketing Science* (2007).
 - § Daniel Kahneman and Amos Tversky, “Prospect Theory: An Analysis of Decision under Risk,” *Econometrica* (1979).

- § Eldar Shafir, Itamar Simonson, and Amos Tversky, “Reason-Based Choice,” *Cognition* (1993).
- Copies of the “In the News” articles (Optional)
- Copies of the Experiment: *How Much Does Free Really Cost?*
 - Supplies
 - § Copies of Excel Spreadsheets
 - § 1 item per group. For examples, think of items that you could commonly get at a tradeshow: small alarm clock, coffee mug, or calendar.

Procedures

DAY 1

1. Assign students to read Chapter 3 for homework. Assign optional journal articles. Assign optional “In the News” pieces.
2. Ask each student to bring in an article, an advertisement, or an example of an item being offered for free. Make sure students know that they can use examples other than financial ones.

DAY 2 – BOOK DISCUSSION

1. Begin the lesson by asking students what they think about Chapter 3. When is free good and when can it lead to mistakes?
2. Have them share their examples from their homework assignment. Are these items really worth the effort? What price do we attach to these items?
3. If you assigned the *In the News* items, start a discussion with the students about them. If you did not assign the *In the News* items, begin by describing the articles and then start the discussion. Talk to them about these real-world situations and how these people are influenced by free items and how successful marketing can take advantage of this situation.
4. (Optional) Discuss the one or more of the Academic Papers with them.
5. Assign the Experiment. Assign the students into teams of 3 to 5 students. Students will conduct the Experiment and answer the following questions:
 - What is the hypothesis?
 - What do you expect that the results will look like if the experiment is successful?
 - What do you expect that the results will look like if the experiment fails?

DAY 3 (a few days later, if possible) – EXPERIMENT DISCUSSION

1. Before class, combine the results from the individuals or teams on the excel spreadsheet provided and review the data patterns. *Alternatively, you can assign one team for each experiment to be in charge of collecting the results, analyzing them, and presenting them to the class.
2. During class, review the results. Discuss any major data patterns.
 - Was the hypothesis correct?
 - What did you learn from the experiment about free! and purchasing decisions?
 - What could you do to improve the experiment?
 - What other versions of the experiment could be interesting to test?

In the News

Report from Free Cone Day – Ben & Jerry's Ice Cream

http://daviswiki.org/Free_Cone_Day

Should You Offer a Free Trial?

Forbes, June 21, 2007

http://www.forbes.com/2007/06/20/omnicom-burger-king-ent-sales-cx_II_0620freetrial.html

No Hour Too Early to Shop

Tulsa World, November 24, 2007

<http://www.tmcnet.com/submit/2007/11/24/3117260.htm>

Test Your Knowledge (Correct answers are highlighted in BOLD)

1. The idea behind the cost of zero cost is:
 - a) People overvalue what they get for free
 - b) People believe that they deserve to get things for free
 - c) People undervalue what they get for free
 - d) People often get overly excited by items that are free when conducting cost-benefit calculations**
2. Based on behavioral economic theory, which offer will be the most successful for an online shopping site?
 - a) Send customers an offer for one item at 50 percent off the retail price**

1. Show the item to the respondent.
 2. Ask him or her – “Hypothetically, would you get this item if it was offered today free of charge? You would just pay \$5 for shipping and handling.” They will say – yes or no. Record this response.
- ii. **CONDITION 2:**
1. Show the item to the respondent.
 2. Ask him or her – “Hypothetically, would you get this item if it was offered today for \$2.50 plus \$2.50 for shipping and handling.” They will say – yes or no. Record this response.
- iii. **CONDITION 3:**
1. Show the item to the respondent.
 2. Ask him or her – “Hypothetically, would you get this item if it was offered today for \$5.00, which includes free shipping and handling.” They will say – yes or no. Record this response.
4. **RECORD-KEEPING:** Once you have finished, open the Excel Spreadsheet associated with this experiment and record your answers from your form. Double-check that each response is recorded accurately. Follow your teacher’s instructions about how to get the results to him or her.

PREDICTABLY IRRATIONAL
Chapter 4 – The Cost of Social Norms
Lesson Plan – DRAFT 5

Objectives

Students will:

- Learn that society has a different set of rules for behavior that governs social and market interactions.
- Understand the subtle differences between social norms and market norms and how they interact with one another.
- Apply the lessons learned from Chapter 4 through recent newspaper articles and their own life experience
- Apply the lessons learned from Chapter 4 through an experiment.

Materials

The class will need the following:

- Copies of Chapter 4 – give the chapter from the book to read as homework.
- Copies of Related Academic Papers (Optional) – give out the articles beforehand to read as homework.
 - Related Academic Papers
 - § Uri Gneezy and Aldo Rustichini, “A Fine Is a Price,” *Journal of Legal Studies* (2000).
 - § James Heyman and Dan Ariely, “Effort for Payment: A Tale of Two Markets,” *Psychological Science* (2004).
 - § Kathleen Vohs, Nicole Mead, and Miranda Goode, “The Psychological Consequences of Money,” *Science* (2006).
 - § Margaret S. Clark and Judson Mills, “Interpersonal Attraction in Exchange and Communal Relationships,” *Journal of Personality and Social Psychology*, Vol. 37 (1979), 12–24.
 - § Margaret S. Clark, “Record Keeping in Two Types of Relationships,” *Journal of Personality and Social Psychology*, Vol. 47 (1984), 549–557.
 - § Alan Fiske, “The Four Elementary Forms of Sociality: Framework for a Unified Theory of Social Relations,” *Psychological Review* (1992).
 - § Pankaj Aggarwal, “The Effects of Brand Relationship Norms on Consumer Attitudes and Behavior,” *Journal of Consumer Research* (2004).
- Copies of the “In the News” articles or e-link to video clip (Optional)
- Copies of the Experiment: *Are the Best Things in Life Really Free?*
 - Supplies
 - § Copies of Excel Spreadsheets
 - § Small Token (candy)
 - § Cash (50 cents or \$1)

Procedures

DAY 1

1. Assign students to read Chapter 4 for homework. Assign Academic Papers (optional). Assign “In the News” pieces (optional).

DAY 2 – BOOK DISCUSSION

1. **Begin the lesson by asking students what they think about Chapter 4. Discuss with them the difference between social and market norms.**
2. **Have them think of examples from their own life.**
3. **Have them brainstorm either as individuals or in groups about solutions to these problems. What are the advantages and disadvantages of your solutions?**
4. **If you assigned the *In the News* items, start a discussion with the students about them. If you did not assign the *In the News* items, begin by describing the articles and then start the discussion. Find out if they think the articles discuss social and/or market norms, and how these influence behavior.**
5. **(Optional) Discuss the one or more of the Academic Papers with them.**
6. **Assign the Experiment. Working individually or with partners, students will conduct the Experiment and answer the following questions:**
 - **What is the hypothesis?**
 - **What do you expect that the results will look like if the experiment is successful?**
 - **What do you expect that the results will look like if the experiment fails?**

DAY 3 (a few days later, if possible) – EXPERIMENT DISCUSSION

1. **Before class, combine the results from the individuals or teams on the excel spreadsheet provided and review the data patterns. *Alternatively, you can assign one team for each experiment to be in charge of collecting the results, analyzing them, and presenting them to the class.**
2. **During class, review the results. Discuss any major data patterns.**
 - **Was the hypothesis correct?**
 - **What did you learn from the experiment about social and market norms?**
 - **How did it feel asking for help when no money was involved?**
 - **How did it feel asking for help when money was involved?**
 - **How did it feel giving people money for their help?**
 - **How did people respond to help request when no money was involved?**
 - **How did people respond to help request when money was involved?**
 - **Was there a difference between compensating as a small token of appreciation versus cash? What changes followed?**
 - **What could you do to improve the experiment?**
 - **What other versions of the experiment could be interesting to test?**

In the News

Women Seeking Man with \$500,000 a Year Income?

Reuters, October 10, 2007

<http://www.reuters.com/article/oddlyEnoughNews/idUSN09419661200710>

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Video

<http://videos.webpronews.com/2007/10/15/woman-seeking-man-with-500000-income>

Why is Wikipedia successful?

Wall Street Journal, September 12, 2006

<http://online.wsj.com/public/article/SB115756239753455284.html>

Test Your Knowledge (Correct answers are highlighted in BOLD)

1. The relationship between market norms and social norms is such that:
 - a) It's best to have monetary norms when you have incomplete contracts
 - b) It's best to have social norms without contracts
 - c) It's best to have both social and monetary norms
 - d) **It's better to have social norms when you have incomplete contracts**

2. Asking a co-worker to come to your house and help you paint your living room would violate social norms if:
 - a) **You paid them \$5.00 to do it**
 - b) You gave them tickets to a basketball game
 - c) You promised to baby-sit their kids for them that evening
 - d) You first told them how miserable your life has been over the last six months

3. If you managed a car-sharing service (similar to FlexCar or ZipCar) where customers can rent a car by the hour (or fraction of an hour), what approach would you use to ensure that most people return their cars on time and increase customer long-term loyalty?
 - a) **Charge a \$10 fine for every 30 minutes a car is late**

- b) **Cancel a customer's subscription if they return a car late 3 times in a month**
 - c) **Remind them at the beginning of their rental that another customer needs to use the car after them and it is their responsibility to get the car back in time**
 - d) **Call them 10 minutes before the rental period ends and warn them that they need to return it on time**
4. **Suppose 1000 students are approached and asked to sell cookies. They are divided into 4 different groups. Group A is told the effort is for charity. Group B is told the effort is for charity but is also given a small gift for their efforts. Group C is given 5% of sales as reward. Group D is given 20% of sales as reward. If there is direct correlation between sales and efforts and given all other things are equal, which group do you think would have lowest sales?**
- a) **Group A**
 - b) **Group B**
 - c) **Group C**
 - d) **Group D**
5. **Give an example of where you or someone you know mixed up a social and market norm. What was the outcome? What could have been done to result in a better outcome?**
6. **The CEO of a non-profit that operates a mentoring program for at-risk youth in your community approaches you for consulting assistance. Currently, they have more youth than adult mentors. They have heard about other mentoring programs that fixed this imbalance by offering compensation for adults to join and mentor a child. What advice would you give the organization about their recruitment strategy and this possible option?**
7. **Can you think about behaviors that are considered “violations” in one culture but not in another? Or, can you think about behaviors that were once considered “violations” but are no longer considered “violations?”**

PREDICTABLY IRRATIONAL
Chapter 4 – The Cost of Social Norms

Student Handout

Experiment – *Are the Best Things in Life Really Free?*

1. **MATERIALS:** You will be given some pocket change and some small gifts (ex: candy bar) for your experiment. You will also be given an excel spreadsheet to help you conduct the experiment and collect the data. It will include a tab where you can state your hypothesis and another tab to record your results. You will submit the final excel spreadsheet to your teacher.
2. **PRE-EXPERIMENT:** Go over the details of the experiment carefully. Identify what location you will be asking for directions to. Using the excel spreadsheet, record your hypothesis and answer the questions included in the tab, including how you will feel about asking, how you will feel about rewarding assistance, and how people will respond to your different requests for help.
3. **EXPERIMENT:** Go to a busy mall, a library, or any public place and complete each condition with at least 6 respondents. It is important that you follow each condition described in the instructions carefully. It is also important that each respondent's answer is kept confidential from the other respondents.
 - i. **CONDITION 1:**
 1. Identify a respondent. Get them to slow down and listen to your request.
 2. Ask him or her – “Excuse me – can you help me find X? Pretend to need their help and act as if you are acting on their advice.
 3. After they leave your sight, record their response on the form using the scale of 1 to 5 (5 being very helpful). Also, record any of their specific comments – outside of the directions themselves – as best as you can remember. Record how you feel as well.
 - ii. **CONDITION 2:**
 1. Identify a respondent. Get them to slow down and listen to your request.
 2. Ask him or her – “Excuse me, if I gave you \$0.50 would you help me find x? Pretend to need their help and act as if you are acting on their advice.
 3. After they leave your sight, record their response on the form using the scale of 1 to 5. Record whether or not they accepted the monetary payment. Also, record any of their specific comments – outside of the directions themselves – that you remember. Record how you feel as well giving them money for their help.

- iii. **CONDITION 3:**
1. Identify a respondent. Get them to slow down and listen to your request.
 2. Ask him or her – “Excuse me, if I gave you this candy bar would you help me find x?” Pretend to need their help and act as if you are acting on their advice.
 3. After they leave your sights, record their response on the form using the scale of 1 to 5. Record whether or not they accepted token payment. Also, record any of their specific comments – outside of the directions themselves – that you remember. Record how you feel as well giving them a token for their help.
4. **RECORD-KEEPING:** Once you have finished, open the Excel Spreadsheet associated with this experiment and record your answers from your form. Double-check that each response is recorded accurately. Follow your teacher’s instructions about how to get the results to him or her.

PREDICTABLY IRRATIONAL
Chapter 5 – The Influence of Arousal
Lesson Plan – DRAFT 4

Objectives

Students will:

- Learn why people make different decisions in hot states versus cold states.
- Become more aware of its impact on their life and learn ways to counteract these tendencies and make better life decisions.
- Apply the lessons learned from Chapter 5 through recent newspaper articles and their own life experience
- Apply the lessons learned from Chapter 5 through an experiment.

*Could be used in an English or Literature class while reading Robert Louis Stevenson’s *The Strange Case of Dr. Jekyll and Mr. Hyde*. This book is usually taught during high school (9-11 grades).

Materials

The class will need the following:

- Copies of Chapter 5 – give the chapter from the book to read as homework.
- Copies of Related Academic Papers (Optional) – give out the articles beforehand to read as homework.
 - Related Academic Papers
 - § Dan Ariely and George Loewenstein, “The Heat of the Moment: The Effect of Sexual Arousal on Sexual Decision Making,” *Journal of Behavioral Decision Making* (2006).
 - § George Loewenstein, “Out of Control: Visceral Influences on Behavior,” *Organizational Behavior and Human Decision Processes* (1996).
 - § Peter H. Ditto, David A. Pizarro, Eden B. Epstein, Jill A. Jacobson, and Tara K. McDonald, “Motivational Myopia: Visceral Influences on Risk Taking Behavior,” *Journal of Behavioral Decision Making* (2006).
- Copies of the “In the News” articles (Optional)
- Copies of the Experiment: *Paying the Price*
 - Supplies
 - § Copies of Excel Spreadsheets
 - § Cookie Dough
 - § Toast-R-Oven Countertop Oven/Broiler (to bake cookies)

Procedures

DAY 1

1. Assign students to read Chapter 5 for homework. Assign Academic Papers (optional). Assign “In the News” pieces (optional).

DAY 2 – BOOK DISCUSSION

1. Begin the lesson by asking students what they think about Chapter 5.
5. Why do people act differently in hot versus cold states?
2. Have them think of examples from their own life.
3. Have them brainstorm either as individuals or in groups about solutions to these problems.
4. If you assigned the *In the News* items, start a discussion with the students about them. If you did not assign the *In the News* items, begin by describing the articles and then start the discussion. Talk to them about these real-world situations and how people make different decisions when they are in a hot state versus a cold state.

5. (Optional) Ask them if they have ever read *Dr. Jekyll and Mr. Hyde*. Discuss the differences in each personality. What happened when Mr. Hyde took over Dr. Jekyll? Have students give examples of this type of behavior change.
6. (Optional) Discuss the one or more of the Academic Papers with them.
7. Assign the Experiment. Each student will conduct the Experiment and answer the following questions:
 - What is the hypothesis?
 - What do you expect that the results will look like if the experiment is successful?
 - What do you expect that the results will look like if the experiment fails?

DAY 3 (a few days later, if possible) – EXPERIMENT DISCUSSION

1. Before class, combine the results from the individuals or teams on the excel spreadsheet provided and review the data patterns. *Alternatively, you can assign one team for each experiment to be in charge of collecting the results, analyzing them, and presenting them to the class.
2. During class, review the results. Discuss any major data patterns.
 - Was the hypothesis correct?
 - What did you learn from the experiment about the differences between hot and cold states when purchasing an item?
 - What could you do to improve the experiment?
 - What other versions of the experiment could be interesting to test?

In the News

Getting a Grip on Roadway Anger

WebMD

<http://www.webmd.com/news/20000420/getting-grip-road-rage>

Can Court Orders Stop Celebrity Rage?

ABC News, March 20, 2007

<http://abcnews.go.com/Health/Entertainment/story?id=2965122&page=1>

Test Your Knowledge (Correct answers are highlighted in BOLD)

1. What is the main problem with hot states?
 - a) We become somebody different
 - b) We do not appreciate how hot states influence us**

- c) Emotions are irrational
 - d) When we are in a hot state, we don't care about long-term consequences
2. Especially after major holidays, your city has recently seen an increase in pets being dropped off at the city animal shelter. Based on their internal research, the increase is largely due to owners changing their minds about having a pet and deciding not to keep them. Your city councilmember has asked you for a solution on how to reduce this behavior. What would you suggest?
 3. Because road rage contributes to accidents, your state is launching a new public service awareness campaign to educate drivers. Come up with 1-2 slogans for the campaign that may help reduce road rage.
 4. How could you use social norms, and in particular the desire to not violate social norms, to get people to exercise more?
 5. Propose one way to cool people down – once they are angry. Propose one domain (or area of life) and your approach.

PREDICTABLY IRRATIONAL

Chapter 5 – The Influence of Arousal

Student Handout

Experiment – *Paying the Price*

1. **MATERIALS:** You will be given cookie dough and a Toast-R-Oven for your experiment. You will also be given an excel spreadsheet to help you conduct the experiment and collect the data. It will include a tab where you can state your hypothesis and another tab to record your results. You will submit the final excel spreadsheet to your teacher.
2. **PRE-EXPERIMENT:** Go over the details of the experiment carefully. Practice making a batch of cookies before conducting the experiment in the Toast-R-Oven. Make a batch of cookies prior to conducting the experiment at another location to use for your “demo” cookie. Using the excel spreadsheet, record your hypothesis and answer the questions included in the tab.
3. **EXPERIMENT:** You can conduct the experiment in two ways - either go to a busy mall or any public place or invite people (i.e. friends, neighbors) to your

home. However, be sure to complete each condition with at least 10 respondents. It is important that you follow each condition described in the instructions carefully. It is also important that each respondent's answer is kept confidential from the other respondents.

i. **CONDITION 1:**

1. Identify a respondent. Show them the room temperature, but freshly-baked cookie.
2. Ask him or her – “Hypothetically, using this scale of 0 to 10, how much do you want this cookie?” They will give you a rating. Record this response.

ii. **CONDITION 2:**

1. Start making the cookies in the Toast-R-Oven to ensure that the cookies are starting to bake and a cookie odor will be noticeable to the respondents. It usually takes at least half of the baking time.
2. Identify a respondent. Show them the room temperature, but freshly-baked cookie.
3. Ask him or her – “Hypothetically, using this scale of 0 to 10, how much do you want this cookie?” They will give you a rating. Record this response.

4. **RECORD-KEEPING:** Once you have finished, open the Excel Spreadsheet associated with this experiment and record your answers from your form. Double-check that each response is recorded accurately. Follow your teacher's instructions about how to get the results to him or her.

PREDICTABLY IRRATIONAL

Chapter 6 – The Problem of Procrastination & Self Control

Lesson Plan – DRAFT 3

Objectives

Students will:

- Learn how lack of self control, temptation, and procrastination are irrational behaviors that can cause many negative consequences in our everyday lives
- Become more aware of its impact on their life and learn methods to counteract these behaviors

- Apply the lessons learned from Chapter 6 through recent newspaper articles and their own life experience
- Apply the lessons learned from Chapter 6 through an experiment.

Materials

The class will need the following:

- Copies of Chapter 6 – give the chapter from the book to read as homework.
- Copies of Related Academic Papers (Optional) – give out the articles beforehand to read as homework.
 - Related Academic Papers
 - § Dan Ariely and Klaus Wertenbroch, “Procrastination, Deadlines, and Performance: Self-Control by Precommitment,” *Psychological Science* (2002).
 - § Ted O’Donoghue and Mathew Rabin, “Doing It Now or Later,” *American Economic Review* (1999).
 - § Yaacov Trope and Ayelet Fishbach, “Counteractive Self- Control in Overcoming Temptation,” *Journal of Personality and Social Psychology* (2000).
- Copies of the “In the News” articles (Optional)
- Copies of the Experiment: *Pick Your Poison*
 - Supplies
 - § None

Procedures

DAY 1

1. Assign students to read Chapter 6 for homework. Assign optional Academic Papers. Assign optional “In the News” pieces.
2. Assign students to think of examples where procrastination or other self control problems have impacted their life or someone in the news.
3. Think about self control mechanisms that might solve these problems.

DAY 2 – BOOK DISCUSSION

1. Begin the lesson by asking students what they think about Chapter 6.
2. Have them share their real-life examples. Analyze the role that lack of self control, temptation, and/or procrastination has in their examples.

3. Have them brainstorm either as individuals or in groups about solutions to these problems.
4. If you assigned the *In the News* items, start a discussion with the students about them. If you did not assign the *In the News* items, begin by describing the articles and then start the discussion. Talk to them about these real-world situations and how these people are impacted by these behaviors and how organizations can assist people with resisting these behaviors.
5. (Optional) Discuss the one or more of the Academic Papers with them.
6. Assign the Experiment and randomly assign each student to one of the 4 conditions. Each student individually will conduct the Experiment and answer the following questions:
 - What is the hypothesis?
 - What do you expect that the results will look like if the experiment is successful? Will your “poison scenario” help you resist temptation? Will your classmates be able to resist temptation? What percentage of the class will be successful? Which of the 4 scenarios will be the most successful for your classmates?
 - What do you expect that the results will look like if the experiment fails?

DAY 3 (one week later, if possible) – EXPERIMENT DISCUSSION

1. Before class, combine the results from the individuals or teams on the excel spreadsheet provided and review the data patterns. *Alternatively, you can assign one team for each experiment to be in charge of collecting the results, analyzing them, and presenting them to the class.
2. During class, review the results. Discuss any major data patterns.
 - Was the hypothesis correct?
 - What did you learn from the experiment about self-control?
 - What temptation was most popular? Why?
 - Which scenario was most successful? Why?
 - What could you do to improve the experiment?
 - What other versions of the experiment could be interesting to test?

In the News

This Just In: Most Diets Don't Work

Washington Post, January 4, 2005

<http://www.washingtonpost.com/wp-dyn/articles/A45499-2005Jan3.html>

Haven't Saved for Retirement? Don't Wait Another Day

USA Today, January 10, 2008

http://www.usatoday.com/money/perfi/retirement/2008-01-10-not-too-late-to-save_N.htm?csp=34

Extreme Saving 101

CNN Money, January 13, 2005

http://money.cnn.com/2005/01/10/pf/saving/frugal_living/index.htm

Test Your Knowledge (Correct answers are highlighted in BOLD)

1. The main issue with procrastination is:
 - a) I don't feel like answering now, I'll answer later
 - b) We fail to properly plan our workload over time
 - c) We succumb to the temptation of the moment**
 - d) We succumb to the planning fallacy

2. Self-control mechanisms show that people:
 - a) Understand their self control problem
 - b) Do something about it when they have the option to
 - c) Dislike procrastination
 - d) All the above**

3. In order to get the best work from her students, Mrs. Smith should:
 - a) Set deadlines that are evenly spaced throughout the course**
 - b) Let students choose their own deadlines
 - c) Require students to complete all work by end of semester
 - d) Give students a flexible schedule so that they could adjust their schedule as needed

4. Now that you are an expert in behavioral economics, your friends ask you for advice all the time. One friend has come to you and he confesses that he has started gambling more than he should. He'd like your advice on how to control his urges and fix the problem for good.

5. Retirement savings is at all-time low in the United States. Come up with a creative way to get Americans to save more.

PREDICTABLY IRRATIONAL

Chapter 6 – The Problem of Procrastination & Self Control

Student Handout (version 1)

Experiment – *Pick Your Poison*

1. **MATERIALS:** You will need a notebook to record your thoughts and behaviors for one week. You will submit your journal, including the final results of your experiment, to your teacher.
2. **PRE-EXPERIMENT:** Go over the details of the experiment carefully. You should select a “temptation” – something to resist during this 1-week time period. Examples could be pizza, chocolate, e-mail or IMing, watching TV, or spending money on clothes. You should select something that will be difficult for you to avoid – a real temptation. Before you start, discuss your selection, your assigned condition, and record your hypothesis for this experiment in your journal. You will be randomly assigned to one of the four conditions to conduct your experiment. It is important that you follow each condition described in the instructions carefully.
3. **EXPERIMENT:** During the 1-week period, write a short journal entry each day about how you feel about restricting yourself. What did you do when you were tempted?
 - a. You will try hard to resist temptation and write in your journal daily.
4. **RECORD-KEEPING:** Once you have finished, follow your teacher’s instructions about how to get the results to him or her each day or at the end of the week.

PREDICTABLY IRRATIONAL

Chapter 6 – The Problem of Procrastination & Self Control

Student Handout (version 2)

Experiment – *Pick Your Poison*

1. **MATERIALS:** You will need a notebook to record your thoughts and behaviors for one week. You will submit your journal, including the final results of your experiment, to your teacher.
2. **PRE-EXPERIMENT:** Go over the details of the experiment carefully. You should select a “temptation” – something to resist during this 1-week time period. Examples could be pizza, chocolate, e-mail or IMing, watching TV, or spending money on clothes. You should select something that will be difficult for you to avoid – a real temptation. Before you start, discuss your selection, your assigned condition, and record your hypothesis for this experiment in your journal. You will be randomly assigned to one of the four conditions to conduct your experiment. It is important that you follow each condition described in the instructions carefully.
3. **EXPERIMENT:** During the 1-week period, write a short journal entry each day about how you feel about restricting yourself. What did you do when you were tempted?
 - a. You will try hard to resist temptation and write in your journal daily.
 - b. On the first day, you will write a letter to your parents or someone whose opinion matters to you explaining the experiment and telling them that you failed resisting your temptation.
 - c. If you fail in resisting, you are agreeing to actually hand in (or mail) this letter.
4. **RECORD-KEEPING:** Once you have finished, follow your teacher’s instructions about how to get the results to him or her each day or at the end of the week.

PREDICTABLY IRRATIONAL

Chapter 6 – The Problem of Procrastination & Self Control

Student Handout (version 3)

Experiment – *Pick Your Poison*

1. **MATERIALS:** You will need a notebook to record your thoughts and behaviors for one week. You will submit your journal, including the final results of your experiment, to your teacher.

2. **PRE-EXPERIMENT:** Go over the details of the experiment carefully. You should select a “temptation” – something to resist during this 1-week time period. Examples could be pizza, chocolate, e-mail or IMing, watching TV, or spending money on clothes. You should select something that will be difficult for you to avoid – a real temptation. Before you start, discuss your selection, your assigned condition, and record your hypothesis for this experiment in your journal. You will be randomly assigned to one of the four conditions to conduct your experiment. It is important that you follow each condition described in the instructions carefully.
3. **EXPERIMENT:** During the 1-week period, write a short journal entry each day about how you feel about restricting yourself. What did you do when you were tempted?
 - a. You will try hard to resist temptation and write in your journal daily.
 - b. On the first day, you will send an e-mail to everyone (i.e. 10-20 people) who you interact with on a regular basis letting them know about the experiment and asking their help with resisting your temptation.
4. **RECORD-KEEPING:** Once you have finished, follow your teacher’s instructions about how to get the results to him or her each day or at the end of the week.

PREDICTABLY IRRATIONAL

Chapter 6 – The Problem of Procrastination & Self Control

Student Handout (version 4)

Experiment – *Pick Your Poison*

1. **MATERIALS:** You will need a notebook to record your thoughts and behaviors for one week. You will submit your journal, including the final results of your experiment, to your teacher.
2. **PRE-EXPERIMENT:** Go over the details of the experiment carefully. You should select a “temptation” – something to resist during this 1-week time period. Examples could be pizza, chocolate, e-mail or IMing, watching TV, or spending money on clothes. You should select something that will be difficult for you to avoid – a real temptation. Before you start, discuss your selection, your assigned condition, and record your hypothesis for this experiment in your journal. You will be randomly assigned to one of the four

conditions to conduct your experiment. It is important that you follow each condition described in the instructions carefully.

3. **EXPERIMENT:** During the 1-week period, write a short journal entry each day about how you feel about restricting yourself. What did you do when you were tempted?
 - a. You will try hard to resist temptation and write in your journal daily.
 - b. On the first day, you will choose another item – which you hate (i.e. running for an hour straight, cooked cabbage).
 - c. If you fail in resisting, you are agreeing to commit to doing or eating the thing that you hate.
4. **RECORD-KEEPING:** Once you have finished, follow your teacher's instructions about how to get the results to him or her each day or at the end of the week.

PREDICTABLY IRRATIONAL

Chapter 7 – The High Price of Ownership

Lesson Plan – DRAFT 3

Objectives

Students will:

- Learn about the peculiarities of “owning” an item or point of view and how it can alter our perspective of fair value, or point of view
- Become more aware of its impact on their life and learn ways to be more aware of your own quirks and peculiarities when you own something or have a specific point of view
- Apply the lessons learned from Chapter 7 through recent newspaper articles and their own life experience
- Apply the lessons learned from Chapter 7 through an experiment.

*Could be co-taught with an art or home economics class while learning about the Japanese art form of origami.

Materials

The class will need the following:

- Copies of Chapter 7 – give the chapter from the book to read as homework.

- **Copies of Related Academic Papers (Optional) – give out the articles beforehand to read as homework.**
 - **Related Academic Papers**
 - § Ziv Carmon and Dan Ariely, “Focusing on the Forgone: How Value Can Appear So Different to Buyers and Sellers,” *Journal of Consumer Research* (2000).
 - § James Heyman, Yesim Orhun, and Dan Ariely, “Auction Fever: The Effect of Opponents and Quasi- Endowment on Product Valuations,” *Journal of Interactive Marketing* (2004).
 - § Richard Thaler, “Toward a Positive Theory of Consumer Choice,” *Journal of Economic Behavior and Organization* (1980).
 - § Jack Knetsch, “The Endowment Effect and Evidence of Nonreversible Indifference Curves,” *American Economic Review*, Vol. 79 (1989), 1277-1284.
 - § Daniel Kahneman, Jack Knetsch, and Richard Thaler, “Experimental Tests of the Endowment Effect and the Coase Theorem,” *Journal of Political Economy* (1990).
 - § Daniel Kahneman, Jack Knetsch, and Richard Thaler, “Anomalies: The Endowment of Effect, Loss Aversion, and the Status Quo Bias,” *Journal of Economics Perspectives*, Vol. 5 (1991), 193-206.
- **Copies of the “In the News” articles or e-link to video clip (Optional)**
- **Copies of the Experiment: *Frogs For Sale***
 - **Supplies**
 - § **Copies of Excel Spreadsheets**
 - § **Green origami paper from the craft store**
 - § **Color printouts of Origami Frog directions**

Procedures

DAY 1

1. **Assign students to read Chapter 7 for homework. Assign Academic Papers (optional). Assign “In the News” pieces (optional).**

DAY 2 – BOOK DISCUSSION

1. **Begin the lesson by asking students what they think about Chapter 7. Discuss with them the main themes of the chapter - how owning something alters their viewpoint through the three quirks (we fall in love with the item, focus more on the loss, than the ultimate gain; and assume that the buyer is coming from the same perspective) and**

additional peculiarities (the more you work on something you own, the more ownership you feel and partial ownership).

2. **Have them think of examples from their own life.**
3. **Have them brainstorm either as individuals or in groups about solutions to these problems.**
4. **If you assigned the *In the News* items, start a discussion with the students about them. If you did not assign the *In the News* items, begin by describing the articles and then start the discussion. Talk to them about these real-world situations and how these people's perspectives were altered because they starting "owning" something – often before they really had it in their possession.**
5. **(Optional) Discuss the one or more of the Academic Papers with them.**
6. **Assign the Experiment. Assign the students into groups of 4 and have each group conduct the experiment in a different location. Students will conduct the Experiment and answer the following questions:**
 - **What is the hypothesis?**
 - **What do you expect that the results will look like if the experiment is successful?**
 - **What do you expect that the results will look like if the experiment fails?**

DAY 3 (a few days later, if possible) – EXPERIMENT DISCUSSION

1. **Before class, combine the results from the individuals or teams on the excel spreadsheet provided and review the data patterns. For condition 1, plot a regression line to see if there is any relationship between the amount of time taken to complete the frog and their asking price. *Alternatively, you can assign one team for each experiment to be in charge of collecting the results, analyzing them, and presenting them to the class.**
2. **During class, review the results. Discuss any major data patterns.**
 - **Was the hypothesis correct?**
 - **What did you learn from the experiment about ownership?**
 - **Was there a difference between how the "owners" valued their creation versus others who were not involved in the creation? Why?**
 - **Was there a difference between the owners that took more time to create and owners that took less time to create? Why?**
 - **Did some of the owners have a hard time leaving behind their creation?**
 - **What could you do to improve the experiment?**
 - **What other versions of the experiment could be interesting to test?**

In the News

Winner's Curse

Wikipedia

http://en.wikipedia.org/wiki/Winner's_curse

Stuff We Found on Ebay

The Tonight Show with Jay Leno, October 2, 2007

<http://www.veoh.com/videos/v2634299cdxJXhke>

Test Your Knowledge (Correct answers are highlighted in BOLD)

1. Relative to a Duke student who did not own a ticket for the basketball championship, those who did have a ticket view:
 - a) Themselves as true Blue Devil fans
 - b) The game as one that will provide them with more valuable memories**
 - c) The cost of the ticket as very important
 - d) The Duke basketball players as having higher moral fiber

2. Which of the following is not a quirk of ownership:
 - a) We tend to focus on what we will lose vs. what we will gain
 - b) We assume other people view a situation from the same perspective that we do
 - c) We tend to know facts of a situation better than the other party**
 - d) We fall in love with what we own

3. Which of the following items that you own are you most likely to "irrationally" over-price?
 - a) Items that you have multiple instances of using
 - b) Items that someone else gave to you
 - c) Items that you got a great deal on
 - d) Items that you have built yourself**

4. Both you and your friend have established viewpoints on an upcoming election. You are going out to dinner tonight and wish to speak about the

- election. What rules could you put in place beforehand to ensure that you stay open to each other's viewpoint?
5. You are thinking about buying a new home. Based on the lessons learned in this chapter (and others), what is the best way to approach this situation in order to be as rational as possible?

PREDICTABLY IRRATIONAL
Chapter 7 – The High Price of Ownership
Student Handout
Experiment – *Frogs For Sale*

Origami (折り紙) is an ancient Japanese art of paper folding. The goal of this art is to create a given result using geometric folds and crease patterns preferably without the use of gluing or cutting the paper medium. "Origami" refers to all types of paper folding, even those of non-Asian origin. (From Wikipedia)

1. **MATERIALS:** You will be given 10-15 sheets of green origami paper for your experiment. You will also be given an excel spreadsheet to help you conduct the experiment and collect the data. It will include a tab where you can state your hypothesis and another tab to record your results. You will submit the final excel spreadsheet to your teacher.
2. **PRE-EXPERIMENT:** Go over the details of the experiment carefully. Practice making an origami frog before starting the experiment. Using the excel spreadsheet, record your hypothesis and answer the questions included in the tab.
3. **EXPERIMENT:** Go to a busy mall, a library, or any public place and complete each condition with at least 10 respondents. It is important that you follow each condition as described in the instructions carefully. It is also important that each respondent's answer is kept confidential from the other respondents.
 - i. **CONDITION 1:**
 1. Identify a respondent.
 2. Ask the respondent to create the frog using the attached origami instructions.
 3. Without drawing their attention, keep track of how much time it takes for each person to

complete the frog. Note the time privately and later record it on your form.

4. After they have completed the task, tell them that you have people that might be interested in buying the origami. Ask him or her – “Hypothetically, if it was yours, what is the minimum you would be willing to sell this frog for? They will give you a price. Record this response.
5. Record any other behaviors or comments – including their difficulty leaving the frog behind.

ii. **CONDITION 2:**

1. Go to a different location and use the frogs from Condition 1. Be sure to use a matched pairs approach, which means that you use each pre-built sample only once with each respondent.
 2. Identify a respondent.
 3. Show the respondent the frog.
 4. Ask him or her – “What is the maximum you would be willing to pay for this frog?” They will give you a price. Record this response.
4. **RECORD-KEEPING:** Once you have finished, open the Excel Spreadsheet associated with this experiment and record your answers from your form. Double-check that each response is recorded accurately. Follow your teacher’s instructions about how to get the results to him or her.

Origami Frog

(from <http://www.origami-instructions.com>)

STEP 1: Fold the paper in four equal squares with the open end facing you.

Next insert your finger in one of the pockets in the square base.

Move the pocket around to the front, then flatten and crease it.

This classic origami move is known as the **squash fold. See
the next page for more detailed instructions and pictures.**

Photo below shows one of the squash folds completed. Now perform the squash fold three more times until the piece has the diamond shape shown below.

STEP 2: Next fold and unfold the corners as shown, to make creasemarks.

STEP 3: Next comes another classic origami move, the **petal fold**. Now perform the petal fold three more times (on the other three faces of the diamond), to create the **frog base**.

STEP 4: **Fold the frog base down the centerline as shown. Then fold
the lower edges of one layer into the centerline.**

STEP 5: Now fold edge A to edge B as shown by the arrow.

until

**Then perform the previous three steps again, 3 more times,
the piece looks like the last picture above.**

Now it's time to turn the tadpole into a frog!

STEP 6: Now use reverse folds to stretch the back legs.

of Apply reverse folds again, twice each on the front and back pairs of legs, as shown in the photos on the next page.

STEP 7: Now you'll need to blow where shown, to inflate the frog's body.

the You can make the frog hop for short distances by pressing on
the rear of the body, then sliding your finger off onto the table.

PREDICTABLY IRRATIONAL

Chapter 8 – Keeping Doors Open

Lesson Plan – DRAFT 3

Objectives

Students will:

- Learn why people keep doors open for too long and what negative consequences it can have on their lives
- Learn ways to become more aware of the phenomenon in their own lives and improve their decision-making ability
- Apply the lessons learned from Chapter 8 through recent newspaper articles and their own life experience
- Apply the lessons learned from Chapter 8 through an experiment.

Materials

The class will need the following:

- Copies of Chapter 8 – give the chapter from the book to read as homework.
- Copies of Related Academic Papers (Optional) – give out the articles beforehand to read as homework.
 - Related Academic Papers
 - § Jiwoong Shin and Dan Ariely, “Keeping Doors Open: The Effect of Unavailability on Incentives to Keep Options Viable,” *Management Science* (2004).
 - § Sheena Iyengar and Mark Lepper, “When Choice Is Demotivating: Can One Desire Too Much of a Good Thing?” *Journal of Personality and Social Psychology* (2000).
 - § Daniel Gilbert and Jane Ebert, “Decisions and Revisions: The Affective Forecasting of Changeable Outcomes,” *Journal of Personality and Social Psychology* (2002).
 - § Ziv Carmon, Klaus Wertenbroch, and Marcel Zeelenberg, “When Deliberating Makes Choosing Feel Like Losing,” *Journal of Consumer Research* (2003).
- Copies of the “In the News” articles or e-link to video clip (Optional)
- Copies of the Experiment: *The Door Game*
 - Supplies
 - § Access to internet

Procedures

DAY 1

1. Assign the Experiment. Give each student the web address for *The Door Game* on www.predictablyirrational.com. Students should conduct the Experiment before reading the chapter.
2. Assign students to read Chapter 8 for homework. Assign Academic Papers (optional). Assign “In the News” pieces (optional).

DAY 2 – BOOK & EXPERIMENT DISCUSSION

1. Begin the lesson by asking students what they think about Chapter 8. Have them share their scores and experience with *The Door Game*.
 - Have them share examples from their own life or history when “doors were kept open.” Why does this phenomenon exist?
 - Did they – before reading this chapter – understand the inherent negative consequences of this behavior?

- What did the experiment tell them about their own behavior?
2. Have them think of examples from their own life.
 3. If you assigned the *In the News* items, start a discussion with the students about them. If you did not assign the *In the News* items, begin by describing the articles and then start the discussion. Talk to them about these real-world situations and how these people are impacted by “keeping doors open.” What could have been done in each situation – one professional and one personal – to change the circumstances? Why didn’t the individuals involved take these actions?
 4. (Optional) Discuss the one or more of the Academic Papers with them.

In the News

Not To Decide Is To Decide

Affordable Housing Institute, October 24, 2005

http://affordablehousinginstitute.org/blogs/us/2005/10/not_to_decide_i.html

Indecisive Dave

The Fast Show

<http://www.youtube.com/watch?v=oQoPcUXyf3g>

Test Your Knowledge (Correct answers are highlighted in BOLD)

1. Which statement is false about “keeping doors open?”
 - a) People often fail to realize that some doors are disappearing.
 - b) People often underestimate the amount of time they waste while trying to choose between doors.**
 - c) People are overwhelmed by too many opportunities versus lack of opportunities.
 - d) People often confuse little doors and big doors in their life.

2. What solution does the author suggest to keep from running from door to door?
 - a) People need to actively close some doors in their life.**
 - b) People need to stop opening doors in their life.
 - c) People should close all their small doors in order to make room for the big doors.
 - d) None of the above

3. According to behavioral economics, when choosing between two similar options, what do people often fail to take into consideration?

Objectives

Students will:

- Learn why expectation can influence almost every aspect of their lives and change the way they perceive and appreciate experiences.
- Learn about the power of presentation and how it changes our perception
- Learn how their behavior can be influenced by biases and stereotypes
- Apply the lessons learned from Chapter 9 through recent newspaper articles and their own life experience
- Apply the lessons learned from Chapter 9 through an experiment.

Materials

The class will need the following:

- Copies of Chapter 9 – give the chapter from the book to read as homework.
- Copies of Related Academic Papers (Optional) – give out the articles beforehand to read as homework.
 - Related Academic Papers
 - § John Bargh, Mark Chen, and Lara Burrows, “Automaticity of Social Behavior: Direct Effects of Trait Construct and Stereotype Activation on Action,” *Journal of Personality and Social Psychology* (1996).
 - § Margaret Shin, Todd Pittinsky, and Nalini Ambady, “Stereotype Susceptibility: Identity Salience and Shifts in Quantitative Performance,” *Psychological Science* (1999).
 - § Sam McClure, Jian Li, Damon Tomlin, Kim Cypert, Latané Montague, and Read Montague, “Neural Correlates of Behavioral Preference for Culturally Familiar Drinks,” *Neuron* (2004).
 - § Leonard Lee, Shane Frederick, and Dan Ariely, “Try It, You’ll Like It: The Influence of Expectation, Consumption, and Revelation on Preferences for Beer,” *Psychological Science* (2006).
 - § Marco Bertini, Elie Ofek, and Dan Ariely, “To Add or Not to Add? The Effects of Add-Ons on Product Evaluation,” Working Paper, HBS (2007).
 - § George Loewenstein, “Anticipation and the Valuation of Delayed Consumption,” *Economic Journal* (1987).
 - § Greg Berns, Jonathan Chappelow, Milos Cekic, Cary Zink, Giuseppe Pagnoni, and Megan Martin-Skurski, “Neurobiological Substrates of Dread,” *Science* (2006).

§ Grainne M. Fitzsimons, Tanya Chartrand, and Gavan Fitzsimons, “Automatic Effects of Brand Exposure on Motivated Behavior: How Apple Makes You “Think Different,” *Journal of Consumer Research* (2008).

- Copies of the “In the News” articles or e-link to video clip (Optional)
- Copies of the Experiment: *Brand Challenge*
 - Supplies
 - § Copies of Excel Spreadsheets
 - § Two brands of salad dressing (one generic and one fancy brand)
 - § Something to dip into salad dressing (i.e. carrots, celery)

Procedures

DAY 1

1. Assign students to read Chapter 9 for homework. Assign Academic Papers (optional). Assign “In the News” pieces (optional).

DAY 2 – BOOK DISCUSSION

1. Begin the lesson by asking students what they think about Chapter 9.
9. Discuss with them the main themes of the chapter – about the power of expectations, including stereotypes. What did they expect would happen in the experiment with Coke versus Pepsi?
2. Have them think of examples from their own life.
3. Have them brainstorm either as individuals or in groups about solutions to these problems. Where is it affecting their life for the positive and the negative?
4. If you assigned the *In the News* items, start a discussion with the students about them. If you did not assign the *In the News* items, begin by describing the articles and then start the discussion. Talk to them about these real-world situations and how these people’s opinions were changed – by just alluding to the stereotype.
5. (Optional) Discuss the one or more of the Academic Papers with them.
6. Assign the Experiment. Assign the students into groups of 4 and have each group conduct the experiment in a different location. Students will conduct the Experiment and answer the following questions:
 - What is the hypothesis?
 - What do you expect that the results will look like if the experiment is successful?
 - What do you expect that the results will look like if the experiment fails?

DAY 3 (a few days later, if possible) – EXPERIMENT DISCUSSION

1. Before class, combine the results from the individuals or teams on the excel spreadsheet provided and review the data patterns. *Alternatively, you can assign one team for each experiment to be in charge of collecting the results, analyzing them, and presenting them to the class.
2. During class, review the results. Discuss any major data patterns.
 - Was the hypothesis correct?
 - What did you learn from the experiment about expectations?
 - Was there a difference between how people perceived the fancy brand versus the generic brand? Why?
 - What could you do to improve the experiment?
 - What other questions would you like to answer?
 - What other versions of the experiment could be interesting to test?

In the News

Bullseye: Target's Cheap Chic Strategy

Harvard Business School Working Knowledge, August 16, 2004

<http://hbswk.hbs.edu/archive/4319.html>

The Power of Stereotypes

ABC News, September 15, 2006

<http://abcnews.go.com/2020/story?id=2450394&page=1>

Test Your Knowledge (Correct answers are highlighted in BOLD)

1. The Coke & Pepsi experiment showed that:
 - a) Coke creates greater pleasure in the brain
 - b) Coke is better than Pepsi
 - c) Coke creates more higher level associations than Pepsi**
 - d) The contrast between Coke and Pepsi makes the sweetness of Coke better
2. Which statement is false about the “effect of expectations?”
 - a) Expectations shape stereotypes.

- b) **Expectations are harmful and only cause conflict with others.**
 - c) **Expectations influence nearly every aspect of our lives.**
 - d) **Expectations partially blind us from the truth.**
3. **Give another example of a product or service besides Coke that has a strong level of association. How did the company create this? What effects might the associations create in this specific domain?**
 4. **How would you use stereotypes to make dinner at home better?**

PREDICTABLY IRRATIONAL
Chapter 9 – The Effect of Expectations
Student Handout
Experiment – *Brand Challenge*

1. **MATERIALS: You will be given two bottles of similar salad dressing (i.e. Ranch) – one that is a generic brand (i.e. Kroger) and another that is a fancy brand (i.e. Ken’s Steakhouse). You will also be given a food item to “dip” into the dressing (i.e. carrots) and cups to place the dressing in labeled “A” and “B.” You will also be given an excel spreadsheet to help you conduct the experiment and collect the data. It will include a tab where you can state your hypothesis and another tab to record your results. You will submit the final excel spreadsheet to your teacher.**
2. **PRE-EXPERIMENT: Go over the details of the experiment carefully. Using the excel spreadsheet, record your hypothesis and answer the questions included in the tab.**
3. **EXPERIMENT: Go to a busy mall, a library, or any public place and complete each condition with at least 10 respondents. It is important that you follow each condition as described in the instructions carefully. It is also important that each respondent’s answer is kept confidential from the other respondents.**
 - i. **CONDITION 1:**
 1. **Place each salad dressing in a different cup. Place the generic dressing in the cup labeled “A” and the fancy label dressing in the cup labeled “B.”**
 2. **Put the bottles away so that no one can identify them. Be sure your team knows the difference between the bowls.**
 3. **Identify a respondent.**
 4. **Ask the respondent to taste test both salad dressings and tell you whether they like “A” or “B” best.**

5. Record it on your form.
 6. Record any other behaviors or comments.
- ii. **CONDITION 2:**
1. Place each salad dressing in a different cup. Place the generic dressing in the cup labeled “A” and the fancy label dressing in the cup labeled “B.”
 2. Place the correct bottle behind each bowl so it can clearly be identified.
 3. Identify a respondent.
 4. Ask the respondent to taste test both salad dressings and tell you which one they like best.
 5. Record it on your form.
 6. Record any other behaviors or comments.
- iii. **CONDITION 3:**
1. Place each salad dressing in a different cup. Place the generic dressing in the cup labeled “A” and the fancy label dressing in the cup labeled “B.”
 2. Place the wrong bottle behind each bowl so it can clearly be identified. Therefore, the generic dressing will be behind the cup labeled “B” and the fancy labeled dressing will be behind the cup labeled “A.”
 3. Identify a respondent.
 4. Ask the respondent to taste test both salad dressings and tell you which one they like best.
 5. Record it on your form.
 6. Record any other behaviors or comments.
4. **RECORD-KEEPING:** Once you have finished, open the Excel Spreadsheet associated with this experiment and record your answers from your form. Double-check that each response is recorded accurately. Follow your teacher’s instructions about how to get the results to him or her.

PREDICTABLY IRRATIONAL

Chapter 10 – The Power of Price

Lesson Plan – DRAFT 2

Objectives

Students will:

- Learn how their subjective and objective experiences can be altered by their expectations
- Understand why the placebo effect can be so powerful
- Apply the lessons learned from Chapter 10 through recent newspaper articles and their own life experience
- Apply the lessons learned from Chapter 10 through an experiment.

Materials

The class will need the following:

- Copies of Chapter 10 – give the chapter from the book to read as homework.
- Copies of Related Academic Papers (Optional) – give out the articles beforehand to read as homework.
 - Related Academic Papers
 - § Leonard Cobb, George Thomas, David Dillard, Alvin Merendino, and Robert Bruce, “An Evaluation of Internal Mammary Artery Ligation by a Double- Blind Technic,” *New England Journal of Medicine* (1959).
 - § Bruce Moseley, Kimberly O’Malley, Nancy Petersen, Terri Menke, Baruch Brody, David Kuykendall, John Hollingsworth, Carol Ashton, and Nelda Wray, “A Controlled Trial of Arthroscopic Surgery for Osteoarthritis of the Knee,” *New England Journal of Medicine* (2002).
 - § Baba Shiv, Ziv Carmon, and Dan Ariely, “Placebo Effects of Marketing Actions: Consumers May Get What They Pay For,” *Journal of Marketing Research* (2005).
 - § Rebecca Waber, Baba Shiv, Ziv Carmon, and Dan Ariely, “Research Letter: Commercial Features of Placebo and Therapeutic Efficacy,” *Journal of the American Medical Association* (March 5, 2008).
 - § Tor Wager, James Rilling, Edward Smith, Alex Sokolik, Kenneth Casey, Richard Davidson, Stephen Kosslyn, Robert Rose, and Jonathan Cohen, “Placebo- Induced Changes in fMRI in the Anticipation and Experience of Pain,” *Science* (2004).
 - § Hilke Plassmann, John O’Doherty, Baba Shiv, and Antonio Rangel, “Marketing Action Can Modulate Neural Representations of Experienced Pleasantness,” *Proceedings of the National Academy of Science* (2008).
 - § Alia Crum and Ellen Langer, “Mind-Set Matters: Exercise and the Placebo Effect,” *Psychological Science* (2007).
- Copies of the “In the News” articles (Optional)

- Copies of the Experiment: *Price Challenge*
 - Supplies
 - § Copies of Excel Spreadsheets
 - § Bottles of more expensive water (i.e. Evian)
 - § Gallon jugs of tap water
 - § Small signs that say “A - Suggested Retail Price \$0.49” and “B - Suggested Retail Price \$1.38.”
 - § Small cups – 2 needed per respondent

Procedures

DAY 1

1. Assign students to read Chapter 10 for homework. Assign Academic Papers (optional). Assign “In the News” pieces (optional).

DAY 2 – BOOK DISCUSSION

1. Begin the lesson by asking students what they think about Chapter 10. Discuss with them the main theme of the chapter – how price and brand name can drive the placebo effect.
2. Have them think of examples from their own life.
3. Have them brainstorm either as individuals or in groups about solutions to these problems. Are we doomed to get less when we pay less?
4. If you assigned the *In the News* items, start a discussion with the students about them. If you did not assign the *In the News* items, begin by describing the articles and then start the discussion. Talk to them about these real-world situations – is a \$100 bottle of wine really better? Should we continue placebos in modern medicine?
5. (Optional) Discuss the one or more of the Academic Papers with them.
6. Assign the Experiment. Assign the students into groups of 4 and have each group conduct the experiment in a different location. Students will conduct the Experiment and answer the following questions:
 - What is the hypothesis?
 - What do you expect that the results will look like if the experiment is successful?
 - What do you expect that the results will look like if the experiment fails?

DAY 3 (a few days later, if possible) – EXPERIMENT DISCUSSION

1. Before class, combine the results from the individuals or teams on the excel spreadsheet provided and review the data patterns. *Alternatively, you can assign one team for each experiment to be in charge of collecting the results, analyzing them, and presenting them to the class.
2. During class, review the results. Discuss any major data patterns.
 - Was the hypothesis correct?
 - What did you learn from the experiment about expectations?
 - Was there a difference between how people perceived the taste of the water based solely on price? How did it compare to the control?
 - What could you do to improve the experiment?
 - What other versions of the experiment could be interesting to test?

In the News

Why Expensive Wine Tastes Better

Neurosciencemarketing.com, January 16, 2008

<http://www.neurosciencemarketing.com/blog/articles/why-expensive-wine-tastes-better.htm>

http://www.news.com/8301-13580_3-9849949-39.html

The Placebo Prescription

New York Times, June 9, 2000

<http://query.nytimes.com/gst/fullpage.html?res=9C01E6D71E38F93AA35752C0A9669C8B63&sec=&spon=&pagewanted=1>

Is it Prozac? Or Placebo?

Mother Jones, November/December 2003

http://www.motherjones.com/news/feature/2003/11/ma_565_01.html

Mind-Body Connection In Placebo Surgery Trial

Science Daily, April 8, 2004

<http://www.sciencedaily.com/releases/2004/04/040408084240.htm>

Test Your Knowledge (Correct answers are highlighted in BOLD)

1. The effect of price placebo suggests that:
 - a) **Discounted prices will create lower expectations**
 - b) Discounted prices will always lead to lower quality
 - c) Discounted prices usually accompany worse products

- d) **Discounts create purchasing incentives in the market**
2. **Suppose you were hired as a consultant for a company that manufactures and sells 1 cent aspirin. What advice would you give them about their product? What actions could they take to reduce the likelihood that consumers would undervalue their product?**
 3. **Take a stance – should placebos be used in modern medicine? Why or why not? What are the advantages and what are the disadvantages?**

PREDICTABLY IRRATIONAL

Chapter 10 – The Power of Price

Student Handout

Experiment – *Price Challenge*

1. **MATERIALS:** You will be given bottles of a name-brand water (i.e. Evian) and a gallon of tap water for your experiment. You will also be given signs to place in front of the water. You will also be given an excel spreadsheet to help you conduct the experiment and collect the data. It will include a tab where you can state your hypothesis and another tab to record your results. You will submit the final excel spreadsheet to your teacher.
2. **PRE-EXPERIMENT:** Go over the details of the experiment carefully. Using the excel spreadsheet, record your hypothesis and answer the questions included in the tab.
3. **EXPERIMENT:** Go to a busy mall, a library, or any public place and complete each condition with at least 10 respondents. It is important that you follow each condition as described in the instructions carefully. It is also important that each respondent's answer is kept confidential from the other respondents.
 - i. **CONDITION 1:**
 1. Place water from each bottle into a cup. Label the tap water “A – Suggested Retail Price - \$0.49” and the expensive water “B – Suggested Retail Price - \$1.38.”

2. Put the bottles away so that no one can identify them. Be sure your team knows the difference between the labels.
 3. Identify a respondent.
 4. Ask the respondent to taste test the water and tell you whether they like “A” or “B” best.
 5. Record it on your form.
 6. Record any other behaviors or comments.
- ii. **CONDITION 2:**
1. Place water from each bottle into a cup. Label the tap water “B – Suggested Retail Price - \$1.38” and the expensive water “A – Suggested Retail Price - \$0.49.”
 2. Put the bottles away so that no one can identify them. Be sure your team knows the difference between the labels.
 3. Identify a respondent.
 4. Ask the respondent to taste test the water and tell you whether they like “A” or “B” best.
 5. Record it on your form.
 6. Record any other behaviors or comments.
4. **RECORD-KEEPING:** Once you have finished, open the Excel Spreadsheet associated with this experiment and record your answers from your form. Double-check that each response is recorded accurately. Follow your teacher’s instructions about how to get the results to him or her.

PREDICTABLY IRRATIONAL
Chapter 11 & 12 – The Context of Our Character
Lesson Plan – DRAFT 2

Objectives

Students will:

- Learn how our mind responds to certain dishonest acts
- Learn about dishonesty in society and what we can do to curtail it
- Learn why people care more about stealing money than stealing an object

- Apply the lessons learned from Chapters 11 & 12 through recent newspaper articles and their own life experience
- Apply the lessons learned from Chapters 11 & 12 through an experiment.

Materials

The class will need the following:

- Copies of Chapter 11 & 12 – give the chapters from the book out a day or two beforehand to read as homework.
- Copies of Related Academic Papers (Optional) – give out the articles beforehand to read as homework.
 - Related Academic Papers
 - § Nina Mazar and Dan Ariely, “Dishonesty in Everyday Life and Its Policy Implications,” *Journal of Public Policy and Marketing* (2006).
 - § Nina Mazar, On Amir, and Dan Ariely, “The Dishonesty of Honest People: A Theory of Self- Concept Maintenance,” *Journal of Marketing Research* (2008).
 - § Max Bazerman and George Loewenstein, “Taking the Bias out of Bean Counting,” *Harvard Business Review* (2001).
 - § Maz Bazerman, George Loewenstein, and Don Moore, “Why Good Accountants Do Bad Audits: The Real Problem Isn’t Conscious Corruption. It’s Unconscious Bias,” *Harvard Business Review* (2002).
 - § Maurice Schweitzer and Chris Hsee, “Stretching the Truth: Elastic Justification and Motivated Communication of Uncertain Information,” *Journal of Risk and Uncertainty* (2002).
- Copies of the “In the News” articles or e-link to video clip (Optional)
- Copies of the Experiment: *The Context of the Question Asked*
 - Supplies
 - § Copies of Excel Spreadsheets
 - § Copies of Survey

Procedures

DAY 1

1. Assign students to read Chapters 11 & 12 for homework. Assign Academic Papers (optional). Assign “In the News” pieces (optional).

DAY 2 – BOOK DISCUSSION

1. **Begin the lesson by asking students what they think about Chapters 11 & 12. Ask if they are surprised about the results and the authors' conclusion that everyone is a little bit dishonest. Do they agree or disagree with this observation? Do they think that there is indeed a difference between money and objects when it comes to dishonesty?**
2. **Have them think of examples from their own life.**
3. **Have them brainstorm either as individuals or in groups about solutions to these problems.**
4. **If you assigned the *In the News* items, start a discussion with the students about them. If you did not assign the *In the News* items, begin by describing the articles and then start the discussion. Talk to them about how students view cheating. Is this a common perception? What would you do if you encountered someone being dishonest – like in the Primetime series? Would you confront or ignore them?**
5. **(Optional) Discuss the one or more of the Academic Papers with them.**
6. **Assign the Experiment. Assign the students into groups of 4 and have each group conduct the experiment in a different location. Students will conduct the Experiment and answer the following questions:**
 - **What is the hypothesis?**
 - **What do you expect that the results will look like if the experiment is successful?**
 - **What do you expect that the results will look like if the experiment fails?**

DAY 3 (a few days later, if possible) – EXPERIMENT DISCUSSION

3. **Before class, combine the results from the individuals or teams on the excel spreadsheet provided and review the data patterns. *Alternatively, you can assign one team for each experiment to be in charge of collecting the results, analyzing them, and presenting them to the class.**
4. **During class, review the results. Discuss any major data patterns.**
 - **Was the hypothesis correct?**
 - **What did you learn from the experiment about how the context of the question asked changes people's responses?**
 - **What could you do to improve the experiment?**
 - **What other versions of the experiment could be interesting to test?**

In the News

Lessons from the Enron Scandal

Markkula Center for Applied Ethics, March 5, 2002

<http://www.scu.edu/ethics/publications/ethicalperspectives/enronlessons.html>

Survey: Many Student Say Cheating is OK

CNN, April 5, 2002

<http://archives.cnn.com/2002/fyi/teachers.ednews/04/05/highschool.cheating/>

Test Your Knowledge (Correct answers are highlighted in BOLD)

1. You are an office manager of a small business and have noticed that you are spending more on office supplies than you expected. You believe that people are taking office supplies for non-business reasons. What method would be effective to help curtail this behavior and stay within budget?
 - a) Send a memo to all employees reminding them about the importance of honesty.
 - b) Post the office supply policy on the cabinet that states that office supplies are only to be used for business purposes.
 - c) Give each employee a portion of the office supply budget and have them manage it themselves.
 - d) **Put a label on each item that states how much it costs the company.**

2. Which of the following is NOT a main driver of dishonesty?
 - a) **Lack of self control**
 - b) Self deception
 - c) Lack of self awareness
 - d) Lack of social norms

3. "Under the radar" view of dishonesty suggests that:
 - a) People can be dishonest without intending to be dishonest
 - b) People often want to be honest
 - c) People can act selfishly
 - d) **People follow the economic incentive up to a certain level**

4. When given the opportunity to cheat, most people will:
 - a) Cheat to the maximum degree
 - b) Will consider the ramifications using a cost-benefit analysis
 - c) **Will cheat just slightly**
 - d) Will automatically consider their religious and moral beliefs

5. **Your school administrator has approached you and wants your advice. She has heard increasingly from teachers that they suspect students of cheating on homework and tests. She wants to do something to curtail cheating. What should she do?**
6. **The U.S. Government estimates that they lose about \$300B annually in revenue from corporate and individual tax underreporting. What creative ideas do you have for the IRS?**

PREDICTABLY IRRATIONAL
Chapter 11 & 12 – The Context of Our Character
Student Handout
Experiment – *The Context of the Question Asked*

1. **MATERIALS**: You will be given 10 copies of 3 similar, yet different, surveys. You will also be given an excel spreadsheet to help you conduct the experiment and collect the data. It will include a tab where you can state your hypothesis and another tab to record your results from the surveys. You will submit the final excel spreadsheet to your teacher.
2. **PRE-EXPERIMENT**: Go over the details of the experiment carefully. Practice taking one of the surveys yourself to become familiar with the questions. Notice how the surveys are worded slightly different and are tagged with the numbers 1, 2, or 3 to identify their condition. Using the excel spreadsheet, record your hypothesis and answer the questions included in the tab.
3. **EXPERIMENT**: Go to a busy mall, a library, or any public place and complete each condition (survey) with at least 10 respondents. It is important that you follow each condition as described in the instructions carefully. It is also important that each respondent's answer is kept confidential from the other respondents.
 - i. **CONDITION 1**:
 1. Identify a respondent.
 2. Ask them to fill out survey 1.
 3. Record any other behaviors or comments about this survey.
 - ii. **CONDITION 2**:
 1. Identify a respondent.
 2. Ask them to fill out survey 2.
 3. Record any other behaviors or comments about this survey.
 - iii. **CONDITION 3**:
 1. Identify a respondent.

2. Ask them to fill out survey 3.
3. Record any other behaviors or comments about this survey.
4. **RECORD-KEEPING:** Once you have finished, open the Excel Spreadsheet associated with this experiment and record the survey responses from each survey. Be sure that you have each condition matched with the right survey. Double-check that each response is recorded accurately. Follow your teacher's instructions about how to get the results to him or her.

[SCHOOL LOGO]

Dear participant,

As a part of a school project, you are invited to participate in a survey about everyday moral dilemmas. You will be presented with 3 situations and asked to imagine yourself in that situation. Then, you will be asked your opinion about that situation.

If you find some of these questions upsetting, please feel free to skip them. The data you provide will be confidential.

We appreciate your time and effort. Thanks for your help.

Sincerely,

[School Teacher]

Survey 1

Notice that a cashier gave them too much change, accept it, and leave 1 – 2 – 3 – 4 – 5 – 6 – 7 – 8 – 9
Not Likely Likely

Lie about the value of donations to a charity (i.e. clothing) 1 – 2 – 3 – 4 – 5 – 6 – 7 – 8 – 9
Not Likely Likely

Survey 3

Please think of yourself and state how likely you are to do any of the following:

Take credit for someone else's work 1 – 2 – 3 – 4 – 5 – 6 – 7 – 8 – 9
Not Likely Likely

Notice that a cashier gave you too much change, accept it, and leave 1 – 2 – 3 – 4 – 5 – 6 – 7 – 8 – 9
Not Likely Likely

Lie on your taxes about the value of donations to a charity (i.e. clothing) 1 – 2 – 3 – 4 – 5 – 6 – 7 – 8 – 9
Not Likely Likely

PREDICTABLY IRRATIONAL

Chapter 13 – Free Lunches

Lesson Plan – DRAFT 2

Objectives

Students will:

- Learn that our irrational decisions are not random, but in fact predictable and systematic
- Learn about the concept of “free lunches” and how they can be used to help us make a better world
- Apply the lessons learned from Chapter 13 through recent newspaper articles and their own life experience
- Apply the lessons learned from Chapter 13 through an experiment.

Materials

The class will need the following:

- Copies of Chapter 13 – give the chapter from the book to read as homework.
- Copies of Related Academic Papers – give out the articles beforehand to read as homework.
 - Related Academic Papers (Optional)
 - § Dan Ariely and Jonathan Levav, “Sequential Choice in Group Settings: Taking the Road Less Traveled and Less Enjoyed,” *Journal of Consumer Research* (2000).
 - § Richard Thaler and Shlomo Benartzi, “Save More Tomorrow: Using Behavioral Economics to Increase Employee Savings,” *Journal of Political Economy* (2004).
 - § Eric J. Johnson and Daniel Goldstein, “Do Defaults Save Lives?” *Science*, Vol. 302 (2003), 1338–1339.
- Copies of the “In the News” articles or e-link to video clip (Optional)
- Copies of the Experiment: *Choose Your Own Free Lunch*
 - Supplies
 - § To be determined by students

Procedures

DAY 1

1. Assign students to read Chapter 13 for homework. Assign Academic Papers (optional). Assign “In the News” pieces (optional).
2. Assign the Experiment. Give students a minimum of 5-6 days to generate an idea and conduct their own experiment.

DAY 2 – BOOK DISCUSSION

1. Begin the lesson by asking students what they think about Chapter 13. Ask if they are surprised about the results of the authors’ experiment. Do you agree that irrationality is commonplace? Do you agree that “we are pawns on a game whose forces we largely fail to comprehend?”
2. Have them think of examples from their own life related to irrationalities and the possibility “free lunches.”
3. If you assigned the *In the News* items, start a discussion with the students about them. If you did not assign the *In the News* items, begin by describing the articles and then start the discussion. How do they feel about the comparison to monkeys?
4. (Optional) Discuss the one or more of the Academic Papers with them.

DAY 3 (a 5-6 days later, if possible) – EXPERIMENT DISCUSSION

1. During class, have each student or team discuss their experiment. Have them present their hypothesis, findings, and lessons learned. When possible, probe to uncover any opportunities for free lunches.

In the News

No Free Lunch: New Ethics Rules Vex Capitol Hill

Wall Street Journal, January 29, 2007

http://online.wsj.com/public/article/SB117003732585090802-C38Dsj5PWRwaKB7j74dT0xaXNRY_20070205.html

Humans Rational and Irrational Buying Behaviors is Mirrored in Monkeys

Physorg.com, June 20, 2005

<http://www.physorg.com/news4629.html>

Test Your Knowledge (Correct answers are highlighted in BOLD)

1. According to *Predictably Irrational*, next time you are ordering an entrée in a restaurant:
 - a) You should order something different than the people you are dining with
 - b) You should order the same thing as the people you are dining with
 - c) You should order the 2nd most expensive entrée on the menu
 - d) You should not let any outside influences determine your order
2. In the beer experiment, in what sense are people ordering in public making a mistake versus making the right decision?
3. The author suggests that we as humans fall for “decision illusions.” Explain what he means and illustrate it with an example.
4. If people are so often mistaken, how do we continue to survive?

PREDICTABLY IRRATIONAL

Chapter 13 – Free Lunches

Student Handout

Experiment □ *Choose Your Own Free Lunch*

Assignment: Now that you have learned about the concept of free lunches and tested many yourselves, you now can choose your own interest area and uncover drivers of human behavior that may be irrational. You can expand upon an experiment in past chapters or come up with a new one. You can work alone or work together in a team of no more than 4 people. Remember what you have learned in the past – develop a hypothesis, plot your expected results (if applicable), construct the experiment with care, and gather data wisely.

Once you conduct your experiment, develop a short presentation that discusses your interest area, your experiment, your hypothesis, and your findings. In addition, draw inferences on how your results could be used by individuals or policymakers.