

**Table S1. Mixed effects model specifications**

Model	Formula
Study 1 Moral judgments	<pre>Imer(moral ~ (Ini_Pos_Neg_c*Pre_Post + Pre_Post:Con_Re_c + Ini_Pos_Neg_c:Pre_Post:Con_Re_c)*ActPers_c + (Ini_Pos_Neg_c + Pre_Post:Con_Re_c + Ini_Pos_Neg_c:Pre_Post:Con_Re_c ID) + (Ini_Pos_Neg_c + Ini_Pos_Neg_c:Pre_Post:Con_Re_c Question))</pre>
Study 2 Moral judgments	<pre>Imer(moral ~ (Ini_Pos_Neg_c*Pre_Post + Pre_Post:Con_Re_c + Ini_Pos_Neg_c:Pre_Post:Con_Re_c)*Act_Pers_c + (Ini_Pos_Neg_c + Pre_Post:Con_Re_c + Ini_Pos_Neg_c:Pre_Post:Con_Re_c ID) + (Ini_Pos_Neg_c + Pre_Post:Con_Re_c + Ini_Pos_Neg_c:Pre_Post:Con_Re_c Item))</pre>
Study 2 Informational judgments	<pre>Imer(persit ~ Ini_Pos_Neg_c *Pre_Post + Pre_Post:Con_Re_c + Ini_Pos_Neg_c:Pre_Post:Con_Re_c + (Pre_Post + Ini_Pos_Neg_c:Pre_Post + Pre_Post:Con_Re_c + Ini_Pos_Neg_c:Pre_Post:Con_Re_c ID) + (0+Pre_Post + Ini_Pos_Neg_c:Pre_Post + Pre_Post:Con_Re_c + Ini_Pos_Neg_c:Pre_Post:Con_Re_c Item))</pre>
Study 2 Moral updating predicted by second-pass informational judgments	<pre>Imer(moral.diff ~ persit.final + (persit.final ID) + (persit.final Item)) Imer(moral.diff ~ persit.final*Con_Re_c*Ini_Pos_Neg_c + (0+ Con_Re_c:Ini_Pos_Neg_c ID) + (0+Con_Re_c:Ini_Pos_Neg_c Item))</pre>
Study 2 Bayesian mediation model	<pre>med.mod &lt;- bf(persit.final ~ Ini_Pos_Neg_d + (Ini_Pos_Neg_d ID) + (Ini_Pos_Neg_d Item)) dv.mod &lt;- bf(moral.diff ~ Ini_Pos_Neg_d + persit.final + (0 + Ini_Pos_Neg_d ID) + (Ini_Pos_Neg_d Item)) mediation &lt;- brm(med.mod + dv.mod + set_rescor(FALSE), data = reframed)</pre>

**Table S2. Comparisons of mean informational judgments against the midpoint of 4**

<b>Condition</b>	<b>Estimate</b>	<b>Std. Error</b>	<b>z</b>	<b>p</b>
Initial Immoral	4.07566	0.07573	0.999	0.860
Initial Moral	4.44835	0.07571	5.922	<0.001 ***
Immoral-Control	3.56690	0.23009	-1.882	0.296
Moral-Control	3.55078	0.20644	-2.176	0.163
Immoral-to-Moral	4.78954	0.11991	6.584	<0.001 ***
Moral-to-Immoral	3.86007	0.11103	-1.260	0.706

### **Study 1 Experimental instructions**

“This study consists of a series of brief scenarios. You will read each story as it unfolds, and at two points answer a question about the story.

As you will be asked the same question twice for each story, please answer it in light of all the information you currently have at each time that you are asked.

There are 24 scenarios in total. Unfortunately we are unable to display a progress bar with this survey. We apologize for the inconvenience.”

### **Study 2 Experimental instructions**

“This study consists of a series of brief scenarios. You will read each story as it unfolds, and at two points in the story you will answer two questions.

There are 24 scenarios in total. Unfortunately we are unable to display a progress bar with this survey. We apologize for the inconvenience.”

### **Study 1 person-based vs. act-based moral judgments**

We compared act-based and person-based judgments in all six conditions: a) Initial Moral, b) Initial Immoral, c) Moral-to-Immoral, d) Immoral-to-Moral, e) Moral–Control, and f) Immoral–Control. We used a series of contrasts within our model to test the difference between act-based and person-based judgments in each condition; p-values were using the Tukey method.

There were no significant differences between judgment types: a) Initial Moral,  $M = -0.20$ ,  $SE = 0.15$ ,  $z = -1.31$ ,  $p = 0.598$ ; b) Initial Immoral,  $M = 0.04$ ,  $SE = 0.16$ ,  $z = 0.22$ ,  $p = 1.00$ ; c) Moral-to-Immoral,  $M = -0.01$ ,  $SE = 0.20$ ,  $z = -0.04$ ,  $p = 1.00$ ; d) Immoral-to-Moral,  $M = -0.04$ ,  $SE = 0.18$ ,  $z = -0.25$ ,  $p = 1.00$ ; e) Moral–Control,  $M = -1.00$ ,  $SE = 0.18$ ,  $z = -0.57$ ,  $p = 0.983$ ; f) Immoral–Control,  $M = 0.42$ ,  $SE = 0.20$ ,  $z = 2.13$ ,  $p = 0.145$ . The only trend of note was that, within the Immoral–Control condition, act-based judgments became slightly more positive than person-based judgments, i.e. act-based Immoral–Control judgments drifted up from the negative first-pass judgments—however, this trend was not significant. Given that there were no significant differences between judgment types, the following analyses collapsed across act-based and person-based judgments.

### **Study 2 person-based vs. act-based moral judgments**

We replicated our finding from Study 1, that there were no differences between act-based and person-based moral judgments. P-values were corrected using the Tukey method. As before, there were no significant differences between judgment types in: a) Initial Moral,  $M = 0.08$ ,  $SE = 0.13$ ,  $z = 0.59$ ,  $p = .984$ ; b) Initial Immoral,  $M = -0.14$ ,  $SE = 0.14$ ,  $z = -1.00$ ,  $p = .841$ ; c) Moral-to-Immoral,  $M = 0.06$ ,  $SE = 0.15$ ,  $z = 0.40$ ,  $p = 0.998$ ; d) Immoral-to-Moral,  $M = 0.08$ ,  $SE = 0.15$ ,  $z = 0.55$ ,  $p = 0.989$ ; e) Moral–Control,  $M = 0.42$ ,  $SE = .18$ ,  $z = 2.31$ ,  $p = .103$ ; f) Immoral–Control,  $M = 0.52$ ,  $SE = 0.20$ ,  $z = 2.53$ ,  $p = 0.058$ . Both control conditions showed a trend where act-based judgments became slightly more positive when control information was added, consistent with our observation for Immoral–Control scenarios in Study 1.

## Bayesian mediation model summary

**Family:** MV(gaussian, gaussian)

**Links:** mu = identity; sigma = identity  
mu = identity; sigma = identity

**Formula:** persit.final ~ Ini\_Pos\_Neg\_d + (Ini\_Pos\_Neg\_d | ID) + (Ini\_Pos\_Neg\_d | Item)  
moral.diff ~ Ini\_Pos\_Neg\_d + persit.final + (0 + Ini\_Pos\_Neg\_d | ID) + (Ini\_Pos\_Neg\_d | Item)

**Data:** reframed (Number of observations: 1442)

**Samples:** 4 chains, each with iter = 2000; warmup = 1000; thin = 1; total post-warmup samples = 4000

<b>Group-Level Effects: ~ID (Number of levels: 121)</b>	<b>Estimate</b>	<b>Est.Error</b>	<b>l-95% CI</b>	<b>u-95% CI</b>	<b>Rhat</b>	<b>Bulk_ESS</b>	<b>Tail_ESS</b>
sd(persitfinal_Intercept)	0.92	0.08	0.76	1.08	1.00	1691	2342
sd(persitfinal_Ini_Pos_Neg_d)	0.85	0.11	0.65	1.06	1.00	1398	2531
sd(moraldiff_Ini_Pos_Neg_d)	0.68	0.08	0.52	0.84	1.00	2132	3172
cor(persitfinal_Intercept, persitfinal_Ini_Pos_Neg_d)	-0.59	0.09	-0.75	-0.38	1.00	2386	2990

<b>Group-Level Effects: ~Item (Number of levels: 24)</b>	<b>Estimate</b>	<b>Est.Error</b>	<b>l-95% CI</b>	<b>u-95% CI</b>	<b>Rhat</b>	<b>Bulk_ESS</b>	<b>Tail_ESS</b>
sd(persitfinal_Intercept)	0.23	0.09	0.03	0.41	1.00	969	768
sd(persitfinal_Ini_Pos_Neg_d)	0.46	0.12	0.24	0.73	1.01	1009	2261
sd(moraldiff_Intercept)	0.44	0.09	0.29	0.64	1.00	2116	2792
sd(moraldiff_Ini_Pos_Neg_d)	0.86	0.16	0.61	1.22	1.00	1658	2247
cor(persitfinal_Intercept, persitfinal_Ini_Pos_Neg_d)	-0.27	0.39	-0.81	0.71	1.01	559	716
cor(moraldiff_Intercept, moraldiff_Ini_Pos_Neg_d)	-0.87	0.09	-0.98	-0.65	1.00	1419	1785

<b>Population-Level Effects</b>	<b>Estimate</b>	<b>Est.Error</b>	<b>l-95% CI</b>	<b>u-95% CI</b>	<b>Rhat</b>	<b>Bulk_ESS</b>	<b>Tail_ESS</b>
persitfinal_Intercept	3.86	0.11	3.64	4.08	1.00	2250	3209
moraldiff_Intercept	-1.31	0.15	-1.60	-1.01	1.00	3009	2572
persitfinal_Ini_Pos_Neg_d	0.93	0.14	0.65	1.21	1.00	2461	2762
moraldiff_Ini_Pos_Neg_d	1.97	0.21	1.56	2.38	1.00	2032	2383
moraldiff_persit.final	0.11	0.03	0.06	0.17	1.00	6898	3071

<b>Family Specific Parameters</b>	<b>Estimate</b>	<b>Est.Error</b>	<b>l-95% CI</b>	<b>u-95% CI</b>	<b>Rhat</b>	<b>Bulk_ESS</b>	<b>Tail_ESS</b>
sigma_persitfinal	1.34	0.03	1.29	1.39	1.00	4938	3230
sigma_moraldiff	1.43	0.03	1.37	1.48	1.00	5276	3197

Samples were drawn using sampling(NUTS). For each parameter, Bulk\_ESS and Tail\_ESS are effective sample size measures, and Rhat is the potential scale reduction factor on split chains (at convergence, Rhat = 1).

### Scenario Text

#### Scenario 1 - Adapted from Lichtenstein et al., 2007

1. Rebecca is in charge of running a yearlong drug trial at McAdam Hospital. The drug was given to the experimental group of patients, and a placebo was given to the control group. At two months, early results suggest that the drug is effective.
2. Rebecca has the option to give the control group the medicine early. This could potentially save the lives of patients who would die without immediate access to the treatment.
- 3a. **[Moral Initial]**: Holding the trial at the original length would produce more conclusive data. This would help develop better treatments in the long run, and save the lives of patients in the future.
- 3b. **[Immoral Initial]**: Giving treatment to the control group before a study is complete is frowned on in the medical community. If Rebecca ends the study early, she will have trouble progressing her career.
4. Rebecca thinks very carefully and ultimately decides to continue the study at its original length. The drug trial continues for the remainder of the year, but some patients in the control group die during this time.
- 5a. **[Immoral Reframing]**: Giving treatment to the control group before a study is complete is frowned on in the medical community. If Rebecca ends the study early, she will have trouble progressing her career.
- 5b. **[Moral Reframing]**: Holding the trial at the original length would produce more conclusive data. This would help develop better treatments in the long run, and save the lives of patients in the future.
- 5c. **[Control]**: After Rebecca arrives home from work, she makes herself spaghetti for dinner and watches television. After dinner she washes the dishes and takes a shower before going to bed.

**Scenario 2 - Adapted from Lichtenstein et al., 2007**

1. Jessica is in charge of a subcommittee of the Environmental Protection Agency and must break a tie in a vote. The vote is on whether to approve a project proposed by a drug company.
2. If Jessica rejects the project then the drug company will be prevented from harvesting old growth forests to develop their drug. This would prevent severe environmental damage which would wipe out many endangered species.
- 3a. **[Moral Initial]**: By approving the project, Jessica will be allowing highly effective treatments for multiple sclerosis to be developed. No other treatment is nearly as effective as this drug, and the new drug would help thousands of people across America.
- 3b. **[Immoral Initial]**: Jessica's boss, the head of the EPA, would personally benefit if this new drug were to be produced. By approving the project Jessica would win his gratitude and he would be more likely to grant the promotion she planned to ask for.
4. Jessica thinks very carefully and ultimately decides to approve the project. The drug is developed, and the old growth forest is destroyed.
- 5a. **[Immoral Reframing]**: Jessica's boss, the head of the EPA, would personally benefit if this new drug were to be produced. By approving the project Jessica would win his gratitude and he would be more likely to grant the promotion she planned to ask for.
- 5b. **[Moral Reframing]**: By approving the project, Jessica will be allowing highly effective treatments for multiple sclerosis to be developed. No other treatment is nearly as effective as this drug, and the new drug would help thousands of people across America.
- 5c. **[Control]**: Jessica calls several of her close friends and makes plans to see a movie the following weekend. The movie had received good reviews in the local newspaper and Jessica has seen all of the leading actor's previous movies.

### Scenario 3

1. Emil owns a small farm in Argentina. Emil is considering expanding his farm, which would allow him to grow more varieties of fruits and vegetables.
2. Emil sells his crops to a nearby village. He knows that what he grows does not contain enough nutrients for a healthy diet. By expanding his farm he could save the villagers from malnourishment.
- 3a. **[Moral Initial]**: Emil knows that the area of the rainforest that borders on his farm contains an exceptional number of endangered species, and that expanding into it will cause many of them to die out.
- 3a. **[Immoral Initial]**: Emil regularly brings in tourists who pay for tours of the rainforest near his house, and continuing to give these tours will be more profitable than planting more crops and feeding the village.
4. Emil thinks very carefully and ultimately decides not to expand his farm into the rainforest. His farm is not developed any further, and the villagers continue to suffer from malnourishment.
- 5a. **[Immoral Reframing]**: Emil regularly brings in tourists who pay for tours of the rainforest near his house, and continuing to give these tours will be more profitable than planting more crops and feeding the village.
- 5b. **[Moral Reframing]**: Emil knows that the area of the rainforest that borders on his farm contains an exceptional number of endangered species, and that expanding into it will cause many of them to die out.
- 5c. **[Control]**: Emil received a call the next day from an acquaintance he had lost contact with. They agreed to meet the next week at a café in the city in order to catch up on their lives since high school.

#### Scenario 4

1. Sanjeev is a government official in India who is in charge of a local wildlife preservation. A family of endangered tigers has been attacking people on the border of the preserve, and she must decide what to do about it.
2. The World Wildlife Foundation has asked that they be allowed to capture the tigers alive and relocate them. This will leave the villagers in danger for longer, but will save the tigers.
- 3a. **[Moral Initial]**: The nearby villagers are terrified and afraid to let their children out of their houses. By sending the army to kill the tigers Sanjeev could eliminate the danger almost immediately.
- 3b. **[Immoral Initial]**: Sanjeev knows that the teeth of these tigers are very valuable and can be sold as an aphrodisiac. By sending the army to kill the tigers Sanjeev could take a share of the profit.
4. Sanjeev thinks very carefully and ultimately decides to send in the army. The army kills the entire family of endangered tigers.
- 5a. **[Immoral Reframing]**: Sanjeev knows that the teeth of these tigers are very valuable and can be sold as an aphrodisiac. By sending the army to kill the tigers Sanjeev could take a share of the profit.
- 5b. **[Moral Reframing]**: The nearby villagers are terrified and afraid to let their children out of their houses. By sending the army to kill the tigers Sanjeev could eliminate the danger almost immediately.
- 5c. **[Control]**: The next afternoon, Sanjeev goes for a walk to get exercise. She forgot to eat breakfast that morning and becomes hungry after 30 minutes. She decides to take the shorter route home.

## Scenario 5

1. Sarah and her five year old son Jeffery were recently evicted from their house and are living in a homeless shelter. A very rich couple has approached Sarah explaining that they are unable to conceive and that they would be willing to adopt Jeffery.
2. The couple has told Sarah that they will be moving to California. They do not plan to return and it is unlikely that Sarah will ever see her son again if they adopt him.
- 3a. **[Moral Initial]**: Sarah can barely feed Jeffery, let alone provide a comfortable life for him. She is absolutely certain that Jeffery would be very well off with his new family.
- 3b. **[Immoral Initial]**: Sarah has been told by the couple that they will buy her an expensive new car to replace her old one. They will purchase the car when she signs over custody of Jeffery.
4. Sarah thinks very carefully and ultimately decides to allow the family to adopt Jeffery. Jeffery moves to California with the family, and Sarah never sees him again.
- 5a. **[Immoral Reframing]**: Sarah has been told by the couple that they will buy her an expensive new car to replace her old one. They will purchase the car when she signs over custody of Jeffery.
- 5b. **[Moral Reframing]**: Sarah can barely feed Jeffery, let alone provide a comfortable life for him. She is absolutely certain that Jeffery would be very well off with his new family.
- 5c. **[Control]**: Sarah goes to her former high school's basketball game that weekend. Her high school used to rank poorly, but recently has improved its standing in the league.

## Scenario 6

1. Candace is the Mayor of a small mid-western American city. The city needs to make cuts to the education budget. The council has brought two proposals to her about programs that could potentially be cut.
2. Candace could cut after school programs for at-risk youth. This would leave many adolescents without alternatives to getting involved with drugs and crime. It would almost certainly negatively affect their future prospects.
- 3a. **[Moral Initial]**: Cutting day-care programs would put a financial strain on single parents. Parents with jobs would need to work more hours and see their children less. Parents without jobs would have to balance childcare and their time to job hunt.
- 3b. **[Immoral Initial]**: Cutting day-care programs would make parents unhappy, and Candace is up for reelection next year. The votes of these parents were essential to her victory in the last election. Losing the support of parents could lose her the next election.
4. Candace thinks carefully and ultimately decides to cut the after school programs for at-risk youth. As a result, many of these children get involved with drugs and crime.
- 5a. **[Immoral Reframing]**: Cutting day-care programs would make parents unhappy, and Candace is up for reelection next year. The votes of these parents were essential to her victory in the last election. Losing the support of parents could lose her the next election.
- 5b. **[Moral Reframing]**: Cutting day-care programs would put a financial strain on single parents. Parents with jobs would need to work more hours and see their children less. Parents without jobs would have to balance childcare and their time to job hunt.
- 5c. **[Control]**: Candace takes her dog, Spot, on a walk through the downtown city park. The park allows dogs to go off of their leashes, but only in certain areas. When Candace reaches the area, she lets Spot off of his leash and throws the ball with him.

**Scenario 7**

1. Michael is 36 years old and is visiting his mother in the hospital. She is completely paralyzed and unable to speak. She had told Michael that in such situations she wants to be euthanized and the decision is legally Michael's to make.
2. Michael could ask the doctors to euthanize his mother. The procedure would be painless and if it was not performed she would live for years, completely unable to move or speak.
- 3a. **[Moral Initial]**: Michael's wife is adamantly opposed to euthanasia. She understands Michael's mother's circumstances, but has told Michael that she will divorce him if he has his mother euthanized.
- 3b. **[Immoral Initial]**: Michael's mother is very wealthy and has set up automatic deposits to Michael's bank account. When she dies, her fortune will be donated to her favorite charity, and Michael will stop receiving money.
4. Michael thinks very carefully and ultimately decides to leave his mother to die naturally. His mother remains conscious but unable to move or speak.
- 5a. **[Immoral Reframing]**: Michael's mother is very wealthy and has set up automatic deposits to Michael's bank account. When she dies, her fortune will be donated to her favorite charity, and Michael will stop receiving money.
- 5b. **[Moral Reframing]**: Michael's wife is adamantly opposed to euthanasia. She understands Michael's mother's circumstances, but has told Michael that she will divorce him if he has his mother euthanized.
- 5c. **[Control]**: On his way home, Michael listens to the radio. He hears that winter is expected to come early this year. As soon as he arrives home he writes himself a note to put the winter tires on the car on Friday.

## Scenario 8

1. Erica is a 25-year-old woman who is seven months pregnant and single after her husband's death in a car accident. After a recent visit to the doctor, she learns that her baby has a rare chronic medical condition.
2. Erica could choose to have her baby. Although the medical condition will be debilitating, the baby's life expectancy is expected to be completely normal.
- 3a. **[Moral Initial]**: Erica knows that her baby would be in extreme pain for his entire life. The condition causes skin to be hypersensitive and painful to any sort of touch.
- 3b. **[Immoral Initial]**: Erica knows that her baby's medical condition would require her specialized equipment. She would need to move to a cheap apartment in order to afford this.
4. Erica thinks carefully and ultimately decides to have an abortion. Her unborn baby is aborted, and Erica suffers no negative consequences from the abortion.
- 5a. **[Immoral Reframing]**: Erica knows that her baby's medical condition would require her specialized equipment. She would need to move to a cheap apartment in order to afford this.
- 5b. **[Moral Reframing]**: Erica knows that her baby would be in extreme pain for his entire life. The condition causes skin to be hypersensitive and painful to any sort of touch.
- 5c. **[Control]**: When Erica cooks dinner that night she accidentally burns the potatoes. She notices that the smoke detector does not go off and replaces the batteries.

**Scenario 9 - Adapted from Lichtenstein et al., 2007**

1. Abby is the CEO of Morrison Motors, a large car manufacturing company. Abby must make a decision about whether to issue a recall due to a defect in the Ellipsis line of cars.
2. Abby could issue a recall to fix this defect, which would return the thousands of Ellipsis cars to the factory. This would protect customers from the fatal accidents that can occur when the brakes fail.
- 3a. **[Moral Initial]**: Abby knows that the finances of the company are poor, and the negative press and expense of a recall would bankrupt them. Thousands of long-time employees would lose their jobs and pensions.
- 3b. **[Immoral Initial]**: The cost of settlements with the families of the victims would be much cheaper than the cost of a recall. Not issuing a recall could save the company money and even set Abby up for a promotion.
4. Abby thinks carefully, and ultimately decides not to issue the recall. The company saves a great deal of money, but fatal accidents occur as a result.
- 5a. **[Immoral Reframing]**: The cost of settlements with the families of the victims would be much cheaper than the cost of a recall. Not issuing a recall could save the company money and even set Abby up for a promotion.
- 5b. **[Moral Reframing]**: Abby knows that the finances of the company are poor, and the negative press and expense of a recall would bankrupt them. Thousands of long-time employees would lose their jobs and pensions.
- 5c. **[Control]**: Abby went to the gym next to the office to exercise after work. She had originally planned to run on the treadmill, but they were all occupied so she used the bicycle machine instead.

**Scenario 10 - Adapted from Lichtenstein et al., 2007**

1. Brock is a clerk working for the Canadian military and can decide to approve or reject draftees that have been referred to him. He is currently considering the case of Aaron, a young man who is eligible to be drafted.
2. Brock knows that Aaron has experience with engineering and could be put on a bomb defusal squad. This expertise could potentially save the lives of civilians and fellow soldiers.
- 3a. **[Moral Initial]**: Brock read that Aaron works with Engineers without Borders. If rejected from the draft, Aaron would continue to build wells in South Africa, giving the poor access to fresh water.
- 3b. **[Immoral Initial]**: Brock was contacted by Aaron's family, who are very influential. They will contact Brock's superiors and get him promoted if he rejects Aaron's file and spares him the draft.
4. Brock thinks very carefully and ultimately decides to reject Aaron's file. Aaron is not drafted into the army.
- 5a. **[Immoral Reframing]**: Brock was contacted by Aaron's family, who are very influential. They will contact Brock's superiors and get him promoted if he rejects Aaron's file and spares him the draft.
- 5b. **[Moral Reframing]**: Brock read that Aaron works with Engineers without Borders. If rejected from the draft, Aaron would continue to build wells in South Africa, giving the poor access to fresh water.
- 5c. **[Control]**: The following afternoon, Brock attends a meeting along with the other clerks. They discuss a new database program that will help to reduce the amount of paper used in their jobs.

**Scenario 11 - Adapted from Lichtenstein et al., 2007**

1. Elizabeth owns and operates an animal shelter that cares for stray dogs. The shelter had signed a contract under a previous owner to supply dogs to a nearby university for research purposes. The contract is up for renewal.
2. Elizabeth could refuse to re-sign the contract, in which case the sale of animals to the university would end. The university studies the causes of blindness and tests hazardous chemicals on the animals.
- 3a. **[Moral Initial]**: The animal shelter is in poor financial shape. If Elizabeth refuses to re-sign the contract the shelter will likely close. As a result, all of the animals in their care would be turned out into the street.
- 3b. **[Immoral Initial]**: The animal shelter is in poor financial shape. If Elizabeth refuses to re-sign the contract the shelter will likely close. As a result, all of the animals in their care would be turned out into the street.
4. Elizabeth thinks very carefully and ultimately decides to re-sign the contract with the university. Several cats and dogs are taken each month for experimentation.
- 5a. **[Immoral Reframing]**: If Elizabeth re-signs the contract, then the university will increase their payment for the animals to adjust for inflation. The university has also promised to pay Elizabeth a signing bonus of \$5000.
- 5b. **[Moral Reframing]**: The animal shelter is in poor financial shape. If Elizabeth refuses to re-sign the contract the shelter will likely close. As a result, all of the animals in their care would be turned out into the street.
- 5c. **[Control]**: After work, Elizabeth stops at a friend's house to borrow a movie that her friend had recommended. Elizabeth planned to watch it that night, but got distracted by another program that was on TV.

**Scenario 12**

1. Angela is a 40-year-old mother of two children, aged 12 and 14. She is has been approached by two women (Sandra and Megan) to act as a surrogate mother, and is considering whether to accept either offer.
2. By being a surrogate mother for Sandra, Angela would be helping a close friend who has always wanted a child but cannot conceive on her own. Sandra is willing to pay for Angela's healthcare costs, so that the pregnancy will not cost Angela anything.
- 3a. **[Moral Initial]**: Angela wants to send her children to college, but she does not have the money for a college savings fund. Megan has promised to pay Angela generously for carrying her child. Without this money, Angela may not be able to send her children to college.
- 3b. **[Immoral Initial]**: By being a surrogate mother for Megan, Angela will be generously compensated. Megan is a wealthy acquaintance and in addition to the large payment, has offered to buy Angela box seats at the Metropolitan Opera, of which Angela is an enormous fan.
4. Angela thinks carefully and ultimately decides to act as a surrogate mother for Megan. She is generously compensated for her trouble.
- 5a. **[Immoral Reframing]**: By being a surrogate mother for Megan, Angela will be generously compensated. Megan is a wealthy acquaintance and in addition to the large payment, has offered to buy Angela box seats at the Metropolitan Opera, of which Angela is an enormous fan.
- 5b. **[Moral Reframing]**: Angela wants to send her children to college, but she does not have the money for a college savings fund. Megan has promised to pay Angela generously for carrying her child. Without this money, Angela may not be able to send her children to college.
- 5c. **[Control]**: While Angela's children are at school she reads her favorite book. She notices that she is nearly finished and drives to a local bookstore to pick out something new. The store was having a sale, and so she picks out two books instead of just the one she planned to buy.

**Scenario 13 - Adapted from Lichtenstein et al., 2007**

1. Gregory is the captain of a fishing vessel that operates off the coast of Cape Cod. He is considering implementing a new fishing method for himself and his crew.
2. The new method involves specialized nets that release larger creatures caught in them. If used, it would decrease the number of dolphins that are accidentally caught and strangled in the netting.
- 3a. **[Moral Initial]**: Gregory knows that by implementing the new method he would be forced to lay off a third of his crew due to the related expenses. These people would have a very difficult time finding other jobs.
- 3b. **[Immoral Initial]**: Gregory has run a profitable business on the side where he sells dolphin fins to natural medicine distributors. If he implemented the new fishing method, he would need to shut down this business.
4. Gregory thinks carefully and ultimately decides not to implement the new fishing method. The vessel continues to kill several dolphins per month.
- 5a. **[Immoral Initial]**: Gregory has run a profitable business on the side where he sells dolphin fins to natural medicine distributors. If he implemented the new fishing method, he would need to shut down this business.
- 5b. **[Moral Initial]**: Gregory knows that by implementing the new method he would be forced to lay off a third of his crew due to the related expenses. These people would have a very difficult time finding other jobs.
- 5c. **[Control]**: On Saturday, Gregory drives to Connecticut to spend the weekend with his parents. The traffic is very light and Gregory arrives at his parent's house two hours earlier than he had expected to.

**Scenario 14**

1. Sergei is the governor of a small state in an Eastern European country. Sergei is considering whether to pass or veto an amendment banning the death penalty and public executions.
2. If Sergei passes the amendment, then the death penalty and public executions will be banned immediately. Based on the estimates of Sergei's staff, this would prevent at least ten executions of innocents per year.
  - 3a. **[Moral Initial]**: Sergei knows that the state uses the income from tickets sold to public executions. Banning the death penalty would eliminate funding for several ongoing investigations into gang violence, leaving citizens in danger.
  - 3b. **[Immoral Initial]**: The public executions are very popular among Sergei's supporters. Sergei will have a much better chance of reelection if he vetoes the proposal and allows both public executions and the death penalty to continue.
4. Sergei thinks very carefully and ultimately decides to veto the proposal. The death penalty is maintained.
  - 5a. **[Immoral Initial]**: The public executions are very popular among Sergei's supporters. Sergei will have a much better chance of reelection if he vetoes the proposal and allows both public executions and the death penalty to continue.
  - 5b. **[Moral Initial]**: Sergei knows that the state uses the income from tickets sold to public executions. Banning the death penalty would eliminate funding for several ongoing investigations into gang violence, leaving citizens in danger.
  - 5c. **[Control]**: Sergei attends a briefing on the accounting department of the local government. The head accountant arrives late, but the meeting still ends early as most of the plans had been discussed previously at a related meeting.

**Scenario 15**

1. Brian is a contestant in a game show in which pairs of participants answer questions for money but are humiliated if they fail. Brian's partner has just failed the final question, and Brian has the option to "save" him.
2. If Brian decides to save his partner, his partner will not be dropped into a tank of human excrement, and Brian will end the game with half of the \$10,000 he has earned.
- 3a. **[Moral Initial]**: Earlier, both Brian and his partner stated their reasons for being on the show. Brian's cousin was diagnosed with lung cancer, and Brian wants help pay for his treatment.
- 3b. **[Immoral Initial]**: By abandoning his partner to be dropped into the tank of human excrement, Brian will keep all of his money and be given a new Mercedes Benz car as a bonus prize.
4. Brian thinks carefully and ultimately decides to abandon his partner. Brian's partner is dropped into the human excrement, and Brian collects his earnings.
- 5a. **[Immoral Reframing]**: By abandoning his partner to be dropped into the tank of human excrement, Brian will keep all of his money and be given a new Mercedes Benz car as a bonus prize.
- 5b. **[Moral Reframing]**: Earlier, both Brian and his partner stated their reasons for being on the show. Brian's cousin was diagnosed with lung cancer, and Brian wants help pay for his treatment.
- 5c. **[Control]**: Brian is browsing Facebook later that night and notices that a former coworker has recently gotten married. Brian tells his wife who is surprised to hear the news.

**Scenario 16 - Adapted from Lichtenstein et al., 2007**

1. Cassandra is a member of the transportation board in a large American city. The board is considering the addition of a lane to a dangerous section of the freeway at the edge of the city.
2. Cassandra knows that this stretch of highway is notorious for causing vehicles to lose control, and that there have been fatal accidents year round at it. Adding an additional lane would prevent approximately 50 deaths due to accidents per year.
- 3a. **[Moral Initial]**: Cassandra recently spoke to the mayor, who told her that the money for the lane would need to come from the education budget. By rejecting the repairs to the highway, Cassandra could prevent the city from having to lay off 100 teachers.
- 3b. **[Immoral Initial]**: Cassandra's husband is a personal injury lawyer who makes most of his income from settling accidents. Approving the additional lane would create less business for Cassandra's husband, decreasing their combined income by a great deal.
4. Cassandra thinks carefully and ultimately decides not to approve the construction of the new highway lane.
- 5a. **[Immoral Reframing]**: Cassandra's husband is a personal injury lawyer who makes most of his income from settling accidents. Approving the additional lane would create less business for Cassandra's husband, decreasing their combined income by a great deal.
- 5b. **[Moral Reframing]**: Cassandra recently spoke to the mayor, who told her that the money for the lane would need to come from the education budget. By rejecting the repairs to the highway, Cassandra could prevent the city from having to lay off 100 teachers.
- 5b. **[Control]**: When Cassandra arrives home she notices that the sports magazine "NFL Monthly" is in her mailbox. She does not subscribe to this magazine, and has received magazines that were intended for a former tenant of her apartment since she moved in.

**Scenario 17**

1. Dr. Robertson is the medical administrator at St. Luke's hospital. The hospital has received a \$10,000 donation and she must decide how it will be spent.
2. Dr. Robertson could use the \$10,000 to save the life of Caleb, an 8 year-old boy who has a rare, but curable, degenerative disease. Caleb's family cannot afford the treatment on their own, and if it were given then Caleb would be cured immediately.
- 3a. **[Moral Initial]**: Dr. Robertson knows that many patients who come to St. Luke's hospital cannot afford basic immunizations. Setting up a free immunization clinic with the \$10,000 could provide an essential service and save hundreds of lives in the long term.
- 3b. **[Immoral Initial]**: Dr. Robertson knows that the hospital board has promoted past administrators who implemented new programs. Creating a free immunization clinic with the money would set Dr. Robertson up for promotion.
4. Dr. Robertson thinks very carefully and ultimately uses the \$10,000 to set up the free immunization clinic.
- 5a. **[Immoral Reframing]**: Dr. Robertson knows that the hospital board has promoted past administrators who implemented new programs. Creating a free immunization clinic with the money would set Dr. Robertson up for promotion.
- 5b. **[Moral Reframing]**: Dr. Robertson knows that many patients who come to St. Luke's hospital cannot afford basic immunizations. Setting up a free immunization clinic with the \$10,000 could provide an essential service and save hundreds of lives in the long term.
- 5c. **[Control]**: Dr. Robertson later attends a seminar on a database the hospital is implementing. The database will help to coordinate organ transplants with other area hospitals. The meeting runs late and Dr. Robertson arrives home after dark.

**Scenario 18**

1. Peter is a lieutenant in the United States Army during World War I, returning from a reconnaissance mission. He is behind enemy lines with Arthur, a private from his unit who was injured by a landmine.
2. By taking Arthur back with him Peter would be saving his life. Due to his injury, Arthur cannot walk and would be killed by the Germans if Peter were to leave him.
- 3a. **[Moral Initial]**: Peter knows that a German sneak attack is about to launch. Unless Peter leaves Arthur behind he will not reach the trenches in time to warn and save his unit.
- 3b. **[Immoral Initial]**: By leaving Arthur behind, Peter will avoid having to pay the money he owes Arthur. The soldiers have been playing cards in the trenches and Peter owes Arthur \$1,000.
4. Peter thinks very carefully and ultimately decides to leave Arthur behind.
- 5a. **[Immoral Reframing]**: By leaving Arthur behind, Peter will avoid having to pay the money he owes Arthur. The soldiers have been playing cards in the trenches and Peter owes Arthur \$1,000.
- 5b. **[Moral Reframing]**: Peter knows that a German sneak attack is about to launch. Unless Peter leaves Arthur behind he will not reach the trenches in time to warn and save his unit.
- 5c. **[Control]**: Peter comes across an abandoned German truck on his way back to the trenches. He checks if it can be hot-wired, but quickly realizes that the truck is inoperable.

**Scenario 19**

1. Angelo is a treasure hunter in the Amazon, who is returning to camp with his partner Galeno after finding a powerful magical artifact: the mystic ankh. On the path to their camp, a trap knocks Galeno and the ankh into quicksand.
2. Angelo could save Galeno by pulling him from the quicksand. The mystic ankh is sinking, and if Angelo saves Galeno it will be lost forever.
- 3a. **[Moral Initial]**: The villagers that hired Angelo and Galeno to find the ankh need its magical power to grow their crops. Unless it is returned to them they will all starve.
- 3b. **[Immoral Initial]**: By saving the ankh and letting Galeno sink, Angelo could avoid having to split the pay that was promised by the villagers that hired them.
4. Angelo thinks very carefully and ultimately decides to let Galeno sink. He pulls the mystic ankh from the quicksand.
- 5a. **[Immoral Reframing]**: By saving the ankh and letting Galeno sink, Angelo could avoid having to split the pay that was promised by the villagers that hired them.
- 5b. **[Moral Reframing]**: The villagers that hired Angelo and Galeno to find the ankh need its magical power to grow their crops. Unless it is returned to them they will all starve.
- 5c. **[Control]**: On his way back to camp, Angelo sees movement in the jungle. He remains still in case it is a predator, and then continues to the camp.

**Scenario 20**

1. Justice Adams is a judge in London, England in the year 1878. He is considering his verdict on the case of Vincent. Vincent is the son of a rich merchant and killed a man while he was drunk.
2. Justice Adams could convict Vincent. The sentence for murder in cold blood is death. Vincent would be kept in a cell overnight and hanged at dawn the next morning.
- 3a. **[Moral Initial]**: Justice Adams knows that Vincent owns a business, employing 100 men. These men and their families would almost certainly starve if Vincent were convicted, as the business would need to close.
- 3b. **[Immoral Initial]**: A wealthy colleague of Vincent's offered to pull strings to promote Justice Adams to a superior court. This offer is on the condition that Justice Adams pardons Vincent.
4. Justice Adams thinks very carefully and ultimately decides to pardon Vincent.
- 5a. **[Immoral Reframing]**: A wealthy colleague of Vincent's offered to pull strings to promote Justice Adams to a superior court. This offer is on the condition that Justice Adams pardons Vincent.
- 5b. **[Moral Reframing]**: Justice Adams knows that Vincent owns a business, employing 100 men. These men and their families would almost certainly starve if Vincent were convicted, as the business would need to close.
- 5c. **[Control]**: Justice Adams is scheduled to hear another murder trial after this case. The court cannot find the key witness in time, and the trial is postponed until tomorrow.

**Scenario 21**

1. Dr. Ingris is a professor at McAdams University. Dr. Ingris employs Eric, a graduate student, and is part of an international project investigating the causes of cancer. A fire has broken out in her lab and when she arrived the lab was filled with smoke.
2. Eric is lying unconscious on the floor. Dr. Ingris could drag her graduate student to safety, saving his life. This would leave the lab server, which stores all of the lab's data, to be destroyed in the fire.
- 3a. **[Moral Initial]**: The lab server contains five years of research into the causes of cancer. Losing this data would set back progress in treatment by several years and lead to hundreds of patients' needless deaths.
- 3b. **[Immoral Initial]**: Dr. Ingris has stored her own research on the server, which is unrelated to the cancer work. If she left the lab server behind then it could take several more years for her to obtain tenure.
4. Dr. Ingris thinks very carefully and ultimately decides to save the lab server.
- 5a. **[Immoral Reframing]**: Dr. Ingris has stored her own research on the server, which is unrelated to the cancer work. If she left the lab server behind then it could take several more years for her to obtain tenure.
- 5b. **[Moral Reframing]**: The lab server contains five years of research into the causes of cancer. Losing this data would set back progress in treatment by several years and lead to hundreds of patients' needless deaths.
- 5c. **[Control]**: Outside the building, Dr. Ingris learns that the fire began in the lab beside hers after unstable chemicals were left too close to a hotplate. The fire had then spread through the walls into Dr. Ingris' lab.

**Scenario 22**

1. Matthew is 32 years old and lives in Argentina, next door to his brother. He is woken in the night by a tornado warning. There is a storm shelter in the basement of Matthew's apartment building.
2. Matthew's brother is disabled and cannot move without help. Unless Matthew helps him, he will be killed when the tornados hit.
- 3a. **[Moral Initial]**: Matthew's neighbors left their two children home alone for the night. If Matthew saves his brother he will not have time to get them to shelter.
- 3b. **[Immoral Initial]**: Matthew is listed as the beneficiary in his brother's life insurance. If his brother dies then Matthew will receive a large compensation package.
4. Matthew thinks very carefully and ultimately decides not to save his brother.
- 5a. **[Immoral Reframing]**: Matthew is listed as the beneficiary in his brother's life insurance. If his brother dies then Matthew will receive a large compensation package.
- 5b. **[Moral Reframing]**: Matthew's neighbors left their two children home alone for the night. If Matthew saves his brother he will not have time to get them to shelter.
- 5c. **[Control]**: Days later, Matthew learns that there were five other tornados that night. He hears that international aid might help with the rebuilding effort.

**Scenario 23**

1. Carver is a contractor for a private company hired by the Federal Emergency Management Agency (FEMA). Carver is in charge of containing a nuclear meltdown in a major American city.
2. Fixing the nuclear reactor will expose Carver's crew to dangerous radiation. By waiting on special equipment for defusal, Carver could guarantee the safety of his crew when they are sent inside to contain the reaction.
- 3a. **[Moral Initial]**: By sending in his crew immediately, Carver could be sure that the radiation is stopped before it could contaminate the city's water supply. If the water supply is contaminated the city will be uninhabitable for years.
- 3b. **[Immoral Initial]**: Carver's contract makes it clear that future work is only guaranteed if the situation can be resolved quickly. By sending his crew in immediately Carver would bring more business to the company and possibly be promoted.
4. Carver thinks very carefully and ultimately decides not to wait for special equipment, sending his crew in immediately.
- 5a. **[Immoral Reframing]**: Carver's contract makes it clear that future work is only guaranteed if the situation can be resolved quickly. By sending his crew in immediately Carver would bring more business to the company and possibly be promoted.
- 5b. **[Moral Reframing]**: By sending in his crew immediately, Carver could be sure that the radiation is stopped before it could contaminate the city's water supply. If the water supply is contaminated the city will be uninhabitable for years.
- 5c. **[Control]**: Carver sends a team to collect radiation readings throughout the city. Hundreds of samples must be collected and sent back to the laboratory. This information will determine how the clean-up proceeds next.

**Scenario 24 – Inspired by Peter Singer/Peter Unger scenario**

1. Andrei is 40 years old and lives in Latvia. He is driving home from the market when he comes across the scene of a terrible accident and sees an injured man lying in the street.
2. Andrei could drive the man to a hospital. The hospital is a 30-minute drive away. The man would almost certainly survive if he was able to quickly get medical attention.
- 3a. **[Moral Initial]**: Andrei lives with and cares for his father, who suffers from Alzheimer's. Andrei left him sleeping at home and unless he returns immediately his father may wake and wander into the street.
- 3b. **[Immoral Initial]**: The injured man is covered in blood and it will get on the seats if Andrei helps him. Andrei had planned to sell his car soon and this would lower the car's value.
4. Andrei thinks very carefully and ultimately decides to leave the injured man.
- 5a. **[Immoral Reframing]**: The injured man is covered in blood and it will get on the seats if Andrei helps him. Andrei had planned to sell his car soon and this would lower the car's value.
- 5b. **[Moral Reframing]**: Andrei lives with and cares for his father, who suffers from Alzheimer's. Andrei left him sleeping at home and unless he returns immediately his father may wake and wander into the street.
- 5c. **[Control]**: On the drive home Andrei sees that he is running low on gas. He stops at the next gas station to fill his tank, as he will not pass another until he reaches home.