

Supplemental Materials

Sensitivity Analyses

Study 1a. With a sample size of 95, a correlation or standardized beta of .28 can be detected 80% of the time.

Study 1b. With a sample size of 95, a correlation or standardized beta of .28 can be detected 80% of the time.

Study 1c. With a sample size of 108, a correlation or standardized beta of .26 can be detected 80% of the time.

Study 1d. With a sample size of 146, a correlation or standardized beta of .23 can be detected 80% of the time

Study 2. With a sample size of 256, an ANOVA with 1 degree of freedom in the numerator and 4 groups can detect the following effect size 80% of the time: $f = .18$.

Study 3. With a sample size of 464, an ANOVA with 1 degree of freedom in the numerator and 4 groups can detect the following effect size 80% of the time: $f = .13$.

Study 4. With a sample size of 963, an ANOVA with 1 degree of freedom in the numerator and 4 groups can detect the following effect size 80% of the time: $f = .09$.

Study 5. With a sample size of 333, an ANOVA with 1 degree of freedom in the numerator and 4 groups can detect the following effect size 80% of the time: $f = .15$.

Materials

Study 1a

Robert is the Director of Healthcare Management at a local hospital. One evening, a patient at the hospital—a five-year-old child named Johnny—has a sudden need for a complicated liver transplant. The procedure is rarely performed, in part because it costs \$10,000,000 to the hospital. This is a huge sum of money for the local hospital, and is money that could be spent in other ways, such as updating the outdated equipment of the small hospital—a move that could save many more children than just Johnny. As such, Robert had to decide whether to save the child or spend the money on better medical equipment.

There is no official policy on what the right thing is to do in this circumstance. As such, the decision is Robert's to make. According to hospital protocol, the two are not supposed to consult before offering their opinion.

[*Moral mental occurrent measures*]

[Deontological] "It is morally wrong or troubling to let a child die."

[Utilitarian] "By letting the child die, the hospital could actually save money which would allow it to ultimately save many more lives."

[*Moral evaluation measures*]

Based on what you learned here, would you say that Robert is a bad person (vs. a good person)? [1 = completely good, 8 = completely bad]

Do you think that Robert has a bad (vs. a good moral conscience)? (1 = good conscience, 8 = bad conscience)

Would you say that Robert was "in the wrong"? (1 = not at all, 8 = completely)

How blameworthy (vs. praiseworthy) is Jack's character? (1 = entirely praiseworthy, 8 = entirely blameworthy)

Regardless of whether you think Robert made the right decision in this circumstance, to what extent do you think Jack is, in general, a moral (vs. immoral) person? (1 = entirely immoral, 8 = entirely moral)

Study 1b

Enemy soldiers have taken over a village. They have orders to kill all remaining civilians of any age. Some of the townspeople have sought refuge in two rooms of the cellar of a large house. Outside the soldiers can be heard going from house to house, looking for valuables in the supposedly deserted homes.

The enemy soldiers are still a few houses away. An abandoned baby begins to cry loudly in the arms of a townspeople, Jack. The baby's crying will summon the attention of the soldiers who will find where all the townspeople are hiding.

The only way to make the baby stop crying is by smothering the baby, thereby stopping the baby from crying, but likely killing the child. Of course, if the baby is allowed to continue to cry, everyone will die, including the child.

[Deontological decision]: Jack lets the baby continue to cry, which will inevitably attract the attention of the soldiers.

[Utilitarian decision]: Jack presses the baby's mouth into a pillow, which stops the child's crying, but will likely kill the child.

[*Moral mental occurrent measures*]

[Deontological] "It is morally wrong to actively kill a child."

[Utilitarian] "'By killing this child, I could save everyone.'"

[*Moral evaluation measures*]

Based on what you learned here, would you say that Jack is a good person (vs. a bad person)? [1 = completely bad, 8 = completely good]

Do you think that Jack has a good (vs. a bad moral conscience)? (1 = bad conscience, 8 = good conscience)

Would you say that Jack was "in the wrong"? (1 = not at all, 8 = completely)

How praiseworthy (vs. blameworthy) is Jack's character? (1 = entirely blameworthy, 8 = entirely praiseworthy)

Regardless of whether you think Jack made the right decision in this circumstance, to what extent do you think Jack is, in general, an immoral (vs. moral) person? (1 = entirely moral, 8 = entirely immoral)

Study 1c

Michael and Matt are high-level commanders in the Air Force, working to root out Al Qaeda terrorist cells in Afghanistan. Intelligence units have received information from a mole (an insider informant) that high-level Al Qaeda leaders had migrated to rural areas in Eastern Europe where they were planning a new 9/11-style attack. Michael and Matt have made their way toward these suspected Al Qaeda hideouts.

Michael and Matt are contacted by intelligence officials to alert them of new information provided by the mole. In two days the Al-Qaeda leaders will be gathering at a country inn on the border of Ukraine and Poland.

The night of the meeting, Michael and Matt wait in separate lookouts in the mountains that surround the inn.

The intelligence was correct—from their hidden locations, Michael and Matt can both clearly see the group of terrorists enter the small inn. Several of these terrorists are considered to be major operatives and included on the FBI's "Most Wanted Terrorist"

list. Accompanying the terrorists is their translator, an innocent Syrian man the terrorists kidnapped and have forced to work for them.

Both Michael and Matt must decide whether to recommend an immediate airstrike on the inn. If a strike is not ordered now, it is doubtful that one will occur in time to stop the 9/11-style attack. Both men make a decision independently. (In the case the two men make different recommendations, a higher-up in Washington makes the final decision.)

[Moral mental occurrent measures]

"It is morally wrong to kill innocent civilians regardless of the circumstances."

"It is morally right to stop the terrorists from killing thousands of people, even if it means killing an innocent person in order to stop the worse tragedy."

[Moral evaluation measures]

Based on what you learned here, would you say that Michael is a bad person (vs. a good person)? (1 = completely good, 8 = completely bad)

Do you think that Michael has a bad conscience (vs. a good conscience)? (1 = good conscience, 8 = bad conscience)

Would you say that Michael was "in the wrong"? (1 = not at all, 8 = completely)

How praiseworthy (vs. blameworthy) is Michael's character? (1 = entirely blameworthy, 8 = entirely praiseworthy)

Regardless of whether you think Michael made the right decision in this circumstance, to what extent do you think Michael is, in general, a moral (vs. an immoral) person? (1 = entirely immoral, 8 = entirely moral)

Study 1d

Robert is the director of Healthcare Management at a **rural hospital**. One evening, two patients at the hospital—a seven-year-old boy named Michael and an eight-year-old girl named Emily—have sudden needs for organ transplants. Given how far the rural facility is from the next-closest hospital, it is not feasible to transport the patients elsewhere. Available donors **have been identified** for both child patients. Both children, and their parents, sat in their rooms, awaiting word from the hospital on what would be done.

Michael has a need for a liver transplant. It is a **complicated procedure** that would require the small rural hospital to devote their full on-call medical staff to Michael's case. This means that treating Michael now would delay how quickly they could treat Emily. Furthermore, the procedure is risky—saving a patient's life only 20% of the time. That said, if nothing is done right away (i.e., if Emily's procedure is undertaken first), Michael has essentially **no chance of survival**.

Emily instead has a need for a pancreas transplant. Although it too would require the attention of all of the on-call medical staff, this transplant is a **more straightforward** procedure. If it were conducted immediately, Emily would have a near perfect chance of survival. But if the procedure is conducted after a delay (i.e., if the medical team treats Michael first), Emily's chance of survival drops to 55%.

There is no official policy on what the right thing is to do in this circumstance. As such, the decision is Robert's to make is between Option 1 and Option 2:

	First Procedure	Second Procedure
Option 1	operate on Michael (20% chance of survival)	operate on Emily (55% chance of survival)
Option 2	operate on Emily (100% chance of survival)	operate on Michael (near 0% chance of survival)

[*Moral mental occurrent measures*]

[Risky] "It is wrong to knowingly let someone die when there is a chance to save their life."

[Certain] "'It is wrong to risk someone's life when such a risk is not necessary."

[Moral evaluation items, 8-point bipolar scales]

Given all you know about Robert, to what extent would you say he is:

- 1 = a good person, 8 = a bad person
- 1 = has a good conscience, 8 = has a bad conscience
- 1 = is "in the wrong", 8 = is not "in the wrong"
- 1 = has blameworthy character, 8 = has praiseworthy character
- 1 = a moral person, 8 = an immoral person

Study 2

Robert and Alan are the Co-Directors of Healthcare Management at a local hospital. One evening, a patient at the hospital—a five-year-old child named Johnny—developed a sudden, severe liver infection. Johnny and his family think nothing can be done. Unbeknownst to the family, there is a rare, but costly procedure that could be performed, but it would cost the hospital \$3 million. This is a huge sum of money for the local hospital, and it would have to spend money that was allocated for updating its outdated equipment—a move that would likely save more lives in the future. As such, the two men had to decide whether to save the child or spend the money on better medical equipment.

There is no official policy on what the right thing is to do in this circumstance. As such, the decision is Robert and Alan's to make. According to hospital protocol, the two are not supposed to consult before offering their opinion.

By chance, Alan was at the hospital, but Robert was not, when the situation began. By the time hospital officials were able to get in touch with Robert, there was simply no time for Robert to engage in careful deliberation about the decision. Instead, Robert had to make a quick decision, relying on his gut-level intuition to tell him which option was the right thing to do. In contrast, Alan had many hours before he had to make a decision. Alan had many hours to engage in long, careful, and thorough reflection about what was the right thing to do.

[*Quick decision, Deontological*] **Robert's immediate gut-level decision told him to pay for the surgery.** Remember that Robert did not have time to make a careful, reasoned decision and had to go with his gut, which told him to pay for the surgery.

[*Quick decision, Utilitarian*] **Robert's immediate gut-level decision told him not to pay for the surgery.** Remember that Robert did not have time to make a careful, reasoned decision and had to go with his gut, which told him NOT to pay for the surgery.

[*Slow decision, Deontological*] **Alan's reasoned analysis told him to pay for the surgery.** Remember that Alan had time to deliberate and made a careful, reasoned decision which was to pay for the surgery

[*Slow decision, Utilitarian*] **Alan's reasoned analysis told him NOT to pay for the surgery.**

[Quick decision: Moral evaluation]

2a. How much would you blame or praise Robert?

1 (blame much)	2	3	4	5	6	7	8 (praise much)
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3a. Regardless of whether you think Robert made the right decision in this circumstance, to what extent do you think Robert is, in general, a moral person?

1 (not at all)	2	3	4	5	6	7	8 (completely)
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4a. Is Robert the type of person that you would want as a close friend?

1 (not at all)	2	3	4	5	6	7	8 (definitely)
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5a. Would you say that in general, Robert is a good person?

1	2	3	4	5	6	7	8
(not at all)							(definitely)

6a. Do you think that Robert has a good moral conscience?

1	2	3	4	5	6	7	8
(not at all)							(completely)

[*Slow decision: Moral evaluation*]

2b. How much would you blame or praise Alan?

1	2	3	4	5	6	7	8
(blame much)							(praise much)

3b. Regardless of whether you think Alan made the right decision in this circumstance, to what extent do you think Alan is, in general, a moral person?

1	2	3	4	5	6	7	8
(not at all)							(completely)

4b. Is Alan the type of person that you would want as a close friend?

1	2	3	4	5	6	7	8
(not at all)							(definitely)

5b. Would you say that in general, Alan is a good person?

1	2	3	4	5	6	7	8
(not at all)							(definitely)

6b. Do you think that Alan has a good moral conscience?

1	2	3	4	5	6	7	8
(not at all)							(completely)

Study 3

Enemy soldiers have taken over a village. They have orders to kill all remaining civilians of any age. Some of the townspeople have sought refuge in two rooms of the cellar of a large house. Outside the soldiers can be heard going from house to house, looking for valuables in the supposedly deserted homes.

The enemy soldiers are still a few houses away. An abandoned baby begins to cry loudly in the arms of a townspeople, Jack. The baby's crying will summon the attention of the soldiers who will find where all the townspeople are hiding.

The only way to make the baby stop crying is by smothering the baby, thereby stopping the baby from crying, but likely killing the child. Of course, if the baby is allowed to continue to cry, everyone will die, including the child.

[*Emotion Intact*]: Jack is missing the part of his brain that allows him to engage in rational calculations to calculate what is the right thing to do. Instead, all he can do is use his strong emotional impulses that signal what is morally right or wrong. He was born that way: not having any computational capacities to compute what is right or wrong, just having to rely on emotional reactions to others.

[*Reason Intact*]: Jack is missing the part of his brain that allows him to have strong emotional impulses that signal what is morally right or wrong. Instead, all he can do is use rational calculation to calculate what is the right thing to do. He was born that way: not having emotional reactions to others, but acting like a "computer" to compute what is right or wrong.

[*Measures referred to in Footnote 1*]:

Sometimes people have emotional moral impulses that tell them what is right or wrong. Sometimes they have to engage in some intellectual calculation to determine what is right or wrong. Emotional impulses are like automatic intuitions; intellectual calculation is like doing math to arrive at a moral solution.

If a good moral person decides he cannot kill the child, does this decision come from his emotional impulse, or from his dispassionate "mathematical" calculation?

1	2	3	4	5	6	7	8
(emotional impulses)						(mathematical calculation)	

If a good moral person decides he should kill the child in order to save everyone, does this decision come from his emotional impulse, or from his dispassionate "mathematical" calculation?

1	2	3	4	5	6	7	8
(emotional impulses)						(mathematical calculation)	

MMOs:

Regardless of whether Jack is a good person, to what extent do you think Jack:

Have the impulse that actively killing the child is troubling

1	2	3	4	5	6	7	8
(not at all)							(completely)

Appreciate that by killing the child, he would save everyone

1	2	3	4	5	6	7	8
(not at all)							(completely)

[Utilitarian Decision]: Jack presses the baby's mouth into a pillow, which stops the child's crying, but will likely kill the child.

[Dentological Decision]: Jack lets the baby continue to cry, which will inevitably attract the attention of the soldiers.

Moral Evaluations:

Based on what you learned here, would you say that Jack is a good person?

1	2	3	4	5	6	7	8
(not at all)							(completely)

Do you think that Jack has a good moral conscience?

1	2	3	4	5	6	7	8
(not at all)							(completely)

Would you say that Jack was "in the wrong"?

1	2	3	4	5	6	7	8
(not at all)							(completely)

Should Jack be blamed or praised in this context?

1	2	3	4	5	6	7	8
(blamed)							(praised)

How praiseworthy or blameworthy is Jack's moral character?

1	2	3	4	5	6	7	8
(praiseworthy)							(blameworthy)

Regardless of whether you think Jack made the right decision in this circumstance, to what extent do you think Jack is, in general, a moral or immoral person?

1 (moral)	2	3	4	5	6	7	8 (immoral)
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Study 4

Michael and Matt are high-level commanders in the Air Force, working to root out terrorist cells in Afghanistan. Intelligence units have received information from a mole (an insider informant) that high-level Al Qaeda leaders had migrated to rural areas in Eastern Europe where they were planning a new terrorist attack on a European capital city. Michael and Matt have made their way toward these suspected Al Qaeda hideouts.

Michael and Matt are contacted by intelligence officials to alert them of new information provided by the mole. In two days the Al-Qaeda leaders will be gathering at a country inn on the border of Ukraine and Poland.

The night of the meeting, Michael and Matt wait in separate lookouts in the mountains that surround the inn.

The intelligence was correct—from their hidden locations, Michael and Matt can both clearly see the group of terrorists enter the small inn. Several of these terrorists are considered to be major operatives and included on the FBI’s “Most Wanted Terrorist” list. The only other people they both saw enter the inn are the innkeepers and their small children, who are not aware of the terrorists’ true identity, thinking they are businessmen.

Both Michael and Matt must decide whether to recommend an immediate airstrike on the inn. If a strike is not ordered now, it is doubtful that they will again have the opportunity to have all of these terrorists in one place at the same time. Both men make a decision independently. (In the case the two men make different recommendations, a higher-up makes the final decision.)

As Michael and Matt look down from their respective viewpoints, they can see different people through the windows of the inn. From Michael's viewpoint, he is looking through a window at the innkeepers and their small children. From Matt's viewpoint, he is looking through a window at the man who is #3 on the FBI's "Most Wanted Terrorist" list. (Though both Michael and Matt know who all is in the inn.)

[*Moral mental occurrent measures*, all 1 = not at all, 9 = likely is experiencing strongly]

In this moral dilemma, Michael and Matt must balance the desire to strike dangerous terrorists with their desire not to kill innocent people.

Given that Michael is staring straight at the innocent family, to what extent do you think he is experiencing each moral conviction:

Michael probably has a strong moral conviction that it is wrong to kill innocent civilians regardless of the circumstances.

Michael probably had a strong moral conviction that one must stop the terrorists from proceeding with their terrorist attack, even if that means killing innocent people to stop this worse tragedy.

Given that Matt is starting straight at the terrorist who is #3 on the FBI's "Most Wanted Terrorist" list, to what extent do you think he is experiencing each moral conviction:

Matt probably has a strong moral conviction that it is wrong to kill innocent civilians regardless of the circumstances.

Matt probably had a strong moral conviction that one must stop the terrorists from proceeding with their terrorist attack, even if that means killing innocent people to stop this worse tragedy.

[Decision, Deontological] **Michael, who is staring right at the innocent family, decides not to order the strike, which will spare the lives of both the terrorist and the family.**

[Decision, Utilitarian] **Michael, who is staring right at the innocent family, decides to order the strike, which will kill both the terrorists and the family.**

[*Moral evaluation measures*]

Based on what you learned here, would you say that Michael is a good or bad person? (1 = completely good, 8 = completely bad)

Do you think that Michael has a good or bad moral conscience? (1 = good conscience, 8 = bad conscience)

Would you say that Michael was "in the wrong"? (1 = not at all, 8 = completely)

How blameworthy or praiseworthy is Michael's character? (1 = entirely blameworthy, 8 = entirely praiseworthy)

Regardless of whether you think Michael made the right decision in this circumstance, to what extent do you think Michael is, in general, a moral or immoral person? (1 = entirely moral, 8 = entirely immoral)

[*Political orientation measures*]

In general, how do you identify political?

1 = conservative, 7 = liberal

1 = Republican, 7 = Democrat

Study 5

Robert is the director of Healthcare Management at a **rural hospital**. One evening, two patients at the hospital—a seven-year-old boy named Michael and an eight-year-old girl named Emily—have sudden needs for organ transplants. Given how far the rural facility is from the next-closest hospital, it is not feasible to transport the patients elsewhere.

Available donors **have been identified** for both child patients. Both children, and their parents, sat in their rooms, awaiting word from the hospital on what would be done.

Michael has a need for a liver transplant. It is a **complicated procedure** that would require the small rural hospital to devote their full on-call medical staff to Michael's case. This means that treating Michael now would delay how quickly they could treat Emily. Furthermore, the procedure is risky—saving a patient's life only 20% of the time. That said, if nothing is done right away (i.e., if Emily's procedure is undertaken first), Michael has essentially **no chance of survival**.

Emily instead has a need for a pancreas transplant. Although it too would require the attention of all of the on-call medical staff, this transplant is a **more straightforward** procedure. If it were conducted immediately, Emily would have a near perfect chance of survival. But if the procedure is conducted after a delay (i.e., if the medical team treats Michael first), Emily's chance of survival drops to 55%.

There is no official policy on what the right thing is to do in this circumstance. As such, the decision is Robert's to make is between Option 1 and Option 2:

	First Procedure	Second Procedure
Option 1	operate on Michael (20% chance of survival)	operate on Emily (55% chance of survival)
Option 2	operate on Emily (100% chance of survival)	operate on Michael (near 0% chance of survival)

[Visual Salience: Emily] As Robert sat in his office deliberating on what to do, he stared **out the window** at the adjacent patient wing of the hospital. Although most of the curtains were drawn, he could see one window open. There lay Emily, looking anxious and afraid, holding the hands of her parents.

[VS: E, Decision: Risky]

Robert, who was staring at Michael and his family while deliberating on what to do, decides to go with Option 1--operating on Michael first (who has a 20% chance of surviving the surgery) and then Emily second (who will have a 55% chance of surviving the delayed surgery).

[VS: E, Decision: Certain]

Robert, who was staring at Michael and his family while deliberating on what to do, decides to go with Option 2--operating on Emily first (who has a 100% chance of surviving) and then Michael second (who will have virtually no chance of surviving the delayed surgery).

[Visual Salience: Michael] As Robert sat in his office deliberating on what to do, he stared **out the window** at the adjacent patient wing of the hospital. Although most of the

curtains were drawn, he could see one window open. There lay Michael, looking anxious and afraid, holding the hands of his parents.

[VS: M, Decision: Risky]

Robert, who was staring at Emily and her family while deliberating on what to do, decides to go with Option 1--operating on Michael first (who has a 20% chance of surviving the surgery) and then Emily second (who will have a 55% chance of surviving the delayed surgery).

[VS: M, Decision: Certain]

Robert, who was staring at Emily and her family while deliberating on what to do, decides to go with Option 2--operating on Emily first (who has a 100% chance of surviving) and then Michael second (who will have virtually no chance of surviving the delayed surgery).

[Moral evaluation measures]

Given all you know about Robert, to what extent would you say he is: (1 = no, not at all, 4 = somewhat, 7 = very much so)

a good person

a bad person

of good moral conscience

of bad moral conscience

a person of praiseworthy moral character

a person of blameworthy moral character

a moral person

an immoral person