

Supplemental materials for Studies 2, 3, and 5a-5c in Goodwin & Landy (2013).

Study 2: Question wordings (with ages of one week and one year as illustrative)

Value question wordings (The words “medicine” and “tragedy”, bolded and italicized below, were not presented to participants).

Imagine that a new, highly contagious strain of viral disease is spreading in the area where you live. If left untreated, the disease is always fatal. Everyone has the same statistical chance of contracting the disease, regardless of their existing level of health.

A prescription drug has recently been developed that cures the disease with 100% effectiveness and inoculates the patient against contracting it again in the future. However, the cure is so new that mass-production of it has not yet begun, and supplies are extremely limited. There are two individuals who have already contracted the disease waiting for the medicine. One of the individuals is ONE WEEK OLD, and the other is ONE YEAR OLD. But there is only one dose of the medicine left, and no more will be available in the near future. The individual who gets the medicine will certainly be cured and cannot contract the disease again, but the other individual will certainly die from the disease quickly and painlessly. If a decision is not made, one of the two individuals will be randomly selected to receive the medicine.

Medicine: Which individual should be given the medicine?

•	•	•
The 1 WEEK OLD should be given the medicine	Who gets the medicine should be determined RANDOMLY	The 1 YEAR OLD should be given the medicine

Tragedy: Whose death would be more tragic?

•
The death of the 1
WEEK OLD would be
more tragic

•
Neither death would be
more tragic than the other

•
The death of the 1 YEAR
OLD would be more
tragic

Rights question wordings (The words “punishment” and “wrongness”, bolded below, were not presented to participants).

Imagine that two men independently commit the following actions at the exact same time: They each place a small bomb in a subway station, and then hours later detonate their respective bombs with a remote control device. Each man is intending to kill a single person, but neither has any way to determine who they will kill specifically. Having detonated their bombs, each man successfully kills a single person. The first man kills an individual who is 1 WEEK OLD, and the second man kills an individual who is 1 YEAR OLD.

Imagine the relevant law enforcement authorities only have the ability to track down and punish one of these two men. The man that they track down will surely be severely punished, and the man they do not track down will go free. If a decision is not made, one of the two men will be randomly selected to be tracked down and punished.

Punishment: Which man should be tracked down and punished?

•
Man who killed 1 WEEK
OLD should be punished

•
Who is punished should
be determined
RANDOMLY

•
Man who killed 1 YEAR
OLD should be punished

Wrongness: Whose death would be more tragic?

•
Killing of 1 WEEK OLD
more wrong

•
Actions equally wrong
regardless of victim

•
Killing of 1 YEAR OLD
more wrong

Likelihood of death question wording

In the course of everyday life, people are exposed to various risks, some of which are life-threatening. However, some individuals are exposed to greater life-threatening risks than others, meaning that in any given time period, they are more likely to die than others.

We would like you to make a judgment about which of the following two individuals, if either, is more likely to die in a typical day, from all possible causes of death. You should assume that the two individuals described are typical for their age.

Who is more likely to die in a typical day: a person who is 1 WEEK OLD, or a person who is 1 YEAR OLD?

•	•	•
1 WEEK OLD more likely to die	No difference in their likelihood of dying	3 YEAR OLD more likely to die

Study 3: Question wordings (with ages of one day old and 10 year old as illustrative)

(The labels of the scenarios and question framings, bolded and in italics, were not presented to participants).

Value (positive rights) scenario:

Dr. Jones has two patients who are both injured and are dying because of severe blood loss. One patient is 1 day old and the other is 10 years old. If they do not receive immediate blood transfusions, both patients will die very soon, but if either one of them receives a transfusion, that person will certainly live. However, the hospital has only one unit of the patients' rare blood type available, and there is no possibility that any new units of their rare blood type will become available in time to prevent their deaths. Dr. Jones realizes he could transfuse this unit of blood into one of the patients, thereby surely saving them (while allowing the other patient to die without feeling any pain). He knows that if he is going to do this, it must be done immediately because if the patients continue to bleed out, the transfusion will be unsuccessful. This is the only option available to prevent both patients from dying.

Positive question framing:

Given all of this information, which patient should Dr. Jones save (give the blood to)?

- Dr. Jones should save the 1 day old patient.
- Dr. Jones should not save either patient.
- Dr. Jones should save the 10 year old patient.

Negative question framing:

Given all of this information, which patient should Dr. Jones allow to die (deny the blood)?

- Dr. Jones allow the 1 day old patient to die.
- Dr. Jones allow both patients to die.
- Dr. Jones should allow the 10 year old patient to die.

Rights (negative rights) scenario:

Dr. Jones has two patients who are both injured and are dying because of severe blood loss. One patient is 1 day old and the other is 10 years old. If they do not receive immediate blood transfusions, both patients will die very soon, but if either one of them receives a transfusion, that person will certainly live. However, the hospital does not have any units of the patients' rare blood type available, and there is no possibility that any new units of their rare blood type will become available in time to prevent their deaths. Dr. Jones realizes he could transfuse the blood from one of the patients (thereby killing them) into the other patient, thereby surely saving the other's life. The patient who the blood would be taken from would die without feeling any pain, and no one would know what Dr. Jones had done. He knows that if he is going to do this, it must be done immediately because if the patients continue to bleed out, the transfusion will be unsuccessful. This is the only option available to prevent both patients from dying.

Positive question framing:

Given all of this information, which patient should Dr. Jones save (give the other patient's blood to)?

- Dr. Jones should save the 1 day old patient.
- Dr. Jones should not save either patient.
- Dr. Jones should save the 10 year old patient.

Negative question framing:

Given all of this information, which patient should Dr. Jones kill (take the blood from)?

- Dr. Jones should kill the 1 day old patient.
- Dr. Jones should not kill either patient.
- Dr. Jones should kill the 10 year old patient.

Study 5a: Social Relations

The three different person descriptions were the same, except for the experimental manipulation of the presence of three different sorts of important social relation: the the presence of an important romantic relationship, the presence of parents who are still alive, and the presence of children. The exact text of each description is presented below.

Romantic Partner:

Present: Mark is 52 years old, and is a manager of a software company. He has been married for 20 years and does not have children.

Absent: Mark is 52 years old, and is a manager of a software company. He is unmarried, does not have a long-term romantic partner, and does not have children.

Children:

Present: Anne is 39 years old, and is a teacher at a local high school. She and her husband have three children, ranging in age from 5 years to 13 years old.

Absent: Anne is 39 years old, and is a teacher at a local high school. She and her husband have three children, ranging in age from 5 years to 13 years old.

Parents:

Present: Ben is a 50 year old plumber. He is an only child whose two parents are both still alive and well.

Absent: Ben is a 50 year old plumber. He is an only child whose two parents are both now deceased.

Study 5b: Investment

The five different person descriptions were the same, except for the experimental manipulation of the investment that had been made into the target person's life. The particular form that this investment took varied across the descriptions, and included economic investment, time, socialization, personal effort, etc. The descriptions were thus not intended to tap a particular sort of investment, but rather to show that investment in general can affect how tragic a person's death is seen as being. The exact text of each description is presented below.

Violin Player:

High Investment: John is a violin player, and recently turned 30. John is classically trained: from the time that he was very young, he and his numerous teachers have invested years of effort working to hone his talent. Now, all of their work is about to pay off: John has just been selected to be the lead violinist of the extremely prestigious National Orchestra.

Low Investment: John is a violin player, and recently turned 30. John finds that playing comes very naturally to him: from the time that he was very young, he has been able to play very complex music with little practice or effort. Now, John's natural talent is about to pay off: John has just been selected to be the lead violinist of the extremely prestigious National Orchestra.

Newborn:

High Investment: A married couple have just had their first child, a one-day-old baby girl that they have named Megan. The couple have been trying for many years to have a child, and finally turned to in vitro fertilization. They have spent a great deal of time and money over the past several years, and their doctors have

expended quite a bit of effort to help them become parents. After the years of trying to get pregnant, the couple are very happy that Megan is now a part of their family.

Low Investment: A married couple have just had their first child, a one-day-old baby girl that they have named Megan. The couple were not trying to have a child at the moment, and were surprised to learn that they were going to become parents. Even though they had not planned to get pregnant, the couple are very happy that Megan is now a part of their family.

Journalist:

High Investment: Michael is a 22-year-old sports fanatic, and just accepted a job offer to be a sports columnist for his hometown's newspaper. This type of position has been Michael's dream job since the time that he was a child, and he has worked very hard to prepare for it. In addition to watching sports regularly, which he would have done anyway, he interned with several newspapers and magazines in high school, majored in journalism in college, and learned all of the intricacies in the rulebooks of over a dozen sports, including several very obscure ones that he may be required to cover on occasion. Michael is very excited to be starting his career in the only field he has ever wanted to be a part of.

Low Investment: Michael is a 22-year-old sports fanatic, and just accepted a job offer to be a sports columnist for his hometown's newspaper. This type of position has been Michael's dream job since the time that he was a child, and he has had to do very little to prepare for it other than watching sports regularly, which he would have done anyway. Michael is very excited to be starting his career in the only field he has ever wanted to be a part of.

Private School:

High Investment: Anna's parents were unhappy with the public schools in their area and elected to send her to a well-known private school in a nearby county. The school's tuition is fairly expensive, and Anna's family is not wealthy, so her father took a second job working evenings and weekends, and her mother started running a daycare out of their home to earn some extra money. Anna's parents are ultimately happy with their decision, because despite being a financial burden on the family, sending their daughter to private school has worked out: 18-year-old Anna has recently been accepted to a very prestigious university that she has long dreamed of attending.

Low Investment: Anna's parents were unhappy with the public schools in their area and elected to send her to a well-known private school in a nearby county. The school's tuition is fairly expensive, but it is not beyond what Anna's family is able to pay. Anna's parents are ultimately happy with their decision, because it has not been a financial burden on the family, and sending their daughter to private school has worked out: 18-year-old Anna has recently been accepted to a very prestigious university that she has long dreamed of attending.

Soldier:

High Investment: Brian is 45 years old, and has just retired from a twenty-year career in the army. Early in his career, Brian saw several years of active combat and was nearly killed by a hand grenade on one occasion. However, just before the grenade went off, another soldier saw it and jumped on top of it, sacrificing himself to save Brian and the rest of their squad. Thanks to this man, Brian and the rest of his squad escaped the encounter alive, and Brian has never forgotten the day that his squadmate saved his life.

Low Investment: Brian is 45 years old, and has just retired from a twenty-year career in the army. Early in his career, Brian saw several years of active combat and was nearly killed by a hand grenade on one occasion. However, just before

the grenade went off, another soldier saw it and shouted a warning to save Brian and the rest of their squad. Thanks to this man, Brian and his entire squad escaped the encounter alive, and Brian has never forgotten the day that his squadmate saved his life.

Study 5c: Understanding/ Awareness of Death

The four different person descriptions were the same, except for the experimental manipulation of whether the person was aware of their impending death, or not. The exact text of each scenario is presented below.

Plane:

Aware: Bob is a 34-year-old accountant, who is on vacation for a week. He is taking a trip to a mountain resort in the Alps, and the last leg of the voyage is a short flight from Milan in a small charter plane. Bob is the only passenger on the small plane. As the plane approaches the destination, it experiences a sudden loss of power, and begins falling toward the mountains below. Bob watches as the ground rises up to meet the plane, and knows that he is going to die. After a futile attempt by the pilot to restore power, the plane crashes, killing Bob.

Unaware: Bob is a 34-year-old accountant, who is on vacation for a week. He is taking a trip to a mountain resort in the Alps, and the last leg of the voyage is a short flight from Milan in a small charter plane. Bob is the only passenger on the small plane. During the flight, Bob dozes off. As the plane approaches the destination, it experiences a sudden loss of power, and begins falling toward the mountains below. Bob sleeps through the entire ordeal, and is never aware of the power failure or his impending demise. After a futile attempt by the pilot to restore power, the plane crashes, killing Bob.

Skier:

Aware: Erica is a 29-year-old skier on vacation at her favorite ski resort. She is a very advanced skier and wants to end her vacation on a high note by tackling the toughest run that the resort has. She is the only skier on the trail that day. She has just finished her run, and is standing at the bottom of the trail, when a freak avalanche suddenly starts. She can see the snow rapidly descending the mountain above her. She does not have enough time to flee to the safety of another area of the mountain, but she does have several minutes to watch the avalanche advance before she is buried beneath the oncoming snow. Erica knows that she cannot escape, and that she is going to die. After the avalanche reaches her, she is buried under the snow, and very quickly suffocates and dies.

Unaware: Erica is a 29-year-old skier on vacation at her favorite ski resort. She is a very advanced skier and wants to end her vacation on a high note by tackling the toughest run that the resort has. She is the only skier on the trail that day. She is about to begin her run, and is standing at the top of the trail, when a freak avalanche suddenly starts right underneath her feet. She has no warning of the occurrence whatsoever. She is immediately buried beneath the oncoming snow, and very quickly suffocates and dies.

Shark¹:

Aware: Mark is a 65-year-old retired man. To stay fit, he likes to go swimming in the ocean every morning when he wakes up. One day, he is doing his usual morning swim and cuts his foot on a sharp shell. The blood attracts the attention of a Great White Shark that is in the area. The shark quickly approaches Mark,

¹ Due to a programming error, the target's name in the dependent variable did not match the name in the scenario in the Aware version of the Fire scenario, and in the Unaware version of the Shark Attack and Fire scenarios. Some participants pointed this out to us and said that they answered zero ("Not at all tragic") because they did not know who the target in the dependent variable was. To make sure that this did not affect our results, we reran all reported analyses after removing all participants who answered zero to any question ($n = 22$). The significance levels of all results remained unchanged.

who can see its fin protruding from the water. Mark has been swimming in the ocean long enough to be able to identify a Great White's fin, and knows that he is going to die. He does not have time to escape, and he is eaten by the shark.

Unaware: Mark is a 65-year-old retired man. To stay fit, he likes to go swimming in the ocean every morning when he wakes up. One day, he is doing his usual morning swim and cuts his foot on a sharp shell. The blood attracts the attention of a Great White Shark that is in the area. The shark quickly approaches Mark from behind, and Mark does not see it coming. He does not have time to escape, and he is eaten by the shark.

Fire:

Aware: Joanna is a 20-year-old college junior who lives in an apartment off campus. Her roommate is out of town for the weekend, so she has their apartment to herself. At night, while Joanna is sleeping, the apartment building catches fire due to a fault in its electrical wiring. Joanna awakes, but too late; the apartment is engulfed in smoke and flames and she cannot escape. Joanna realizes that she is going to die and suffocates from smoke inhalation several minutes after the blaze breaks out.

Unaware: Joanna is a 20-year-old college junior who lives in an apartment off campus. Her roommate is out of town for the weekend, so she has their apartment to herself. At night, while Joanna is sleeping, the apartment building catches fire due to a fault in its electrical wiring. Joanna does not wake up, and is unaware that her apartment is engulfed in smoke and flames. Joanna suffocates in her sleep from smoke inhalation several minutes after the blaze breaks out.