**APPENDIX A Vignettes and questions used in the experiments**

**A1 Experiment 1**

**A1.1 Pen Vignette**

The Philosophy Department

The receptionist in the philosophy department keeps her desk stocked with pens. The administrative assistants are allowed to take pens, but faculty members are supposed to buy their own. The administrative assistants typically do take the pens. Unfortunately, so do the faculty members. The receptionist repeatedly e-mailed them reminders that only administrators are allowed to take the pens. On Monday morning, one of the administrative assistants encounters Professor Smith walking past the receptionist‘s desk. Both take pens. Later, that day, the receptionist needs to take an important message…but she has a problem. There are no pens left on her desk.

**Test Question Conditions**

1. **Contrast Measure**

*We now want you to answer a few questions concerning the likelihood of the situation in which there are no pens left.*

**1)** How likely was it that there are no pens left given that there had been only 2 pens on the desk and both Professor Smith and the administrative assistant took one pen each?

Please also imagine the situation had been slightly different:

**2)** How likely would it have been that there are no pens left given that there had been only 2 pens on the desk but only Professor Smith had taken one pen (and the administrative assistant had not taken any pen)?

**3)** How likely would it have been that there are no pens left given that there had been only 2 pens on the desk but only the administrative assistant had taken one pen (and Professor Smith had not taken any pen)?

**4)** How likely would it have been that there are no pens left given that there had been only 2 pens on the desk but neither Professor Smith nor the administrative assistant had taken one pen?

1. **Cause Question**

(1) How strongly did the professor cause the problem?

(2) How strongly did the administrative assistant cause the problem?

**A1.2 Computer Crash Vignette**

Lauren and Jane   
Lauren and Jane work for the same company. They each need to use a computer for work sometimes. Unfortunately, the computer isn’t very powerful. If two people are logged on at the same time, it usually crashes. So the company decided to institute an official policy. It declared that Lauren would be the only one permitted to use the computer in the mornings and that Jane would be the only one permitted to use the computer in the afternoons. As expected, Lauren logged on the computer the next day at 9:00 am. But Jane decided to disobey the official policy. She also logged on at 9:00 am. The computer crashed immediately.

**Test Question Conditions**

1. **Contrast Measure**

*We now want you to answer a few questions concerning the likelihood of the situation in which the computer crashed.*

1) How likely was it that the computer crashes given that it crashes when two people are logged on and both Jane and Lauren logged on?

http://ww2.unipark.de/uc/Jana_Samland/9958/layout/t.gifhttp://ww2.unipark.de/uc/Jana_Samland/9958/layout/t.gif*Please also imagine the situation had been slightly different:*

2) How likely would it have been that the computer crashes given that it crashes when two people are logged on but only Jane had logged on (and Lauren had not logged on)?

3) How likely would it have been that the computer crashes given that it crashes when two people are logged on but only Lauren had logged on (and Jane had not logged on)?

4) How likely would it have been that the computer crashes given that it crashes when two people are logged on but neither Jane nor Lauren had logged on?

1. **Cause Question**

(1) How strongly did Jane cause the computer crash?

(2) How strongly did Lauren cause the computer crash?

**A2 Experiment 2a**

The elevatorThe HALFIX-Company is an advertising agency based in Leeds. More than 50 employees work in the corporate building that has two floors.

To go from one floor two another, the employees frequently use the elevator instead of the stairs. The elevator is functional, except for one malfunction: If it is called on the two different floors at the *exact* same time, the system breaks down. Since this would only happen due to a very rare coincidence, however, the company decided to save the costs to fix this malfunction.

[ADDITIONALLY IN *SUE ABNORMAL* CONDITIONS:

Instead, the company decided to restrict the use of the elevator: whereas it is allowed to press the elevator button on the ground floor (to go upstairs), it is not allowed to use it on the first floor (to go downstairs). However, the employees usually ignore the rule and call the elevator equally frequent to go upstairs and downstairs.]

One day, Anna and Sue, two employees, happen to press the two elevator buttons at the exact same time [09:23:25] and as a consequence, the elevator system breaks down.

* Anna pressed the button for the elevator on the ground floor.

[ADDITIONALLY IN *COUNTERFACTUAL FOR ANNA* CONDITIONS:

If she had not pressed the button, the system would not have broken down.]

* Sue pressed the button for the elevator on the first floor.

**Test Questions:**

How much do you agree with the following statements?

(1) Anna caused the collapse of the system.

(2) Sue caused the collapse of the system.

**A3 Experiment 2b**

**The philosophical institute**The receptionist in the philosophical institute keeps her desk stocked with pens.   
Both the employees of Department A and the employees or Department B are allowed to take the pens, and both groups typically do take the pens.   
The receptionist has repeatedly e-mailed them reminders that both Dept. A and Dept. B is allowed to take the pens.  
One Monday morning, Mrs. Cooper from Dept. A encounters Mrs. Smith from Dept. B walking past the receptionist’s desk. Both take pens.   
Later that day, the receptionist needs to take an important message…but she has a problem. There are no pens left on her desk.

1. **Counterfactual Condition:**

*Please think about what other decisions Mrs. Smith (Dept. B) could have made, other than deciding to take a pen.*

1. **Summary Condition**

*Please summarize and describe the events that actually happened in the vignette.*

**Test Questions:**

How much do you agree with the following statements?(1) Mrs. Cooper (Dept. A) caused the problem.

(2) Mrs. Smith (Dept. B) caused the problem.

**A4 Experiment 3 (translated from German)**

**Tom's Garden**

Tom has a huge garden and loves flowers. Because he has less and less time for gardening lately, he employed two gardeners who take care of the plants on his 30 flower beds: Alex and Benni.

Both can independently decide on their working hours and also autonomously arrange who cares for which flower beds.   
They decided that there will be flower beds of which only one of them takes care and that there will be others of which both alternately care.  
Alex and Benni are very reliable and Tom is satisfied with their work. Nevertheless he wants to optimize the plant growth.

Since Tom has read in a magazine that plants grow better when they are fertilized, he decides to let Alex and Benni fertilize his plants. The magazine recommends the use of the chemicals **A X200®** or **B Y33®** since both are especially effective.

However, Tom also read that it can damage plants when they are exposed to different chemicals. Tom therefore decides that he only wants to use *one* fertilizer. He goes for A X200®.

**Tom instructs Alex and Benni to buy the chemical A X200® and to use only this fertilizer.**Alex volunteers for buying several bottles of this chemical for Benni and himself.  
After a few weeks, Tom goes for a walk in his garden. **He realizes that some of his plants are much prettier and bigger than before. However, he also realizes that some of his plants have lost their beautiful color and are dried up.**

That makes Tom very sad and reflective. He wonders whether the drying of his plants might have something to do with the fertilization. He wants to investigate this matter and talks to Alex and Benni.  
Alex tells him that he followed Tom’s instruction and only bought and used the **chemical A X200®**.

Benni, by contrast, tells him that he had used the **chemical B Y33®** instead. He still had some bottles of this chemical in stock at home and wanted to use them up.  
Since some flower beds were only fertilized by Alex or Benni, but others by both, Tom asks Alex and Benni to make a detailed plan about which of his 30 flower beds had been fertilized by whom in the last weeks. Afterwards, he takes a closer look at the flower beds.

He realizes that the plants were **bigger and more beautiful where only one single chemical** had been used (i.e., **only A X200®** or **only B Y33®**).   
**They were dried up, by contrast, in the flower beds on which both A X200® and B Y33® were applied by the gardeners.**

**Test Question Conditions:**

1. **Chemical Condition:**

What caused the drying of the plants?

*(Please choose* ***one or more*** *of the following options.)*

(1) the application of chemical A X200®

(2) the application of chemical B Y33®

1. **Person Condition:**

What caused the drying of the plants?

*(Please choose* ***one or more*** *of the following options.)*

(1) the fertilization by Alex

(2) the fertilization by Benni

**A5 Experiment 4**

**Tom's Garden**

Tom has a huge garden and loves flowers. Because he has less and less time for gardening lately, he employed two gardeners who take care of the plants on his 30 flower beds: Alex and Benni.

Both can independently decide on their working hours and also autonomously arranged who cares for which flower beds.   
They decided that there will be flower beds of which only one of them takes care and that there will be others of which both alternately care.

Alex and Benni are very reliable and Tom is satisfied with their work. Nevertheless he wants to optimize the plant growth.

Since Tom has read in a magazine that plants grow better when they are fertilized, he decides to let Alex and Benni fertilize his plants. The magazine recommends the use of the chemicals **A X200®** or **B Y33®** since both are especially effective.

However, Tom also read that it can damage plants when they are exposed to different chemicals. Tom therefore decides that he only wants to use *one* fertilizer. He goes for A X200®.

**A5.1 Standard Norm Transgression**

**Tom instructs Alex and Benni to buy the chemical A X200® and to use only this fertilizer.**Alex volunteers for buying several bottles of this chemical for Benni and himself.  
After a few weeks, Tom goes for a walk in his garden. **He realizes that some of his plants are much prettier and bigger than before. However, he also realizes that some of his plants have lost their beautiful color and are dried up.**

That makes Tom very sad and reflective. He wonders whether the drying of his plants might have something to do with the fertilization. He wants to investigate this matter and talks to Alex and Benni.  
Alex tells him that he followed Tom’s instruction and only bought and used the **chemical A X200®**.

Benni, by contrast, tells him that he had used the **chemical B Y33®** instead. He still had some bottles of this chemical in stock at home and wanted to use them up.  
Since some flower beds were only fertilized by Alex or Benni, but others by both, Tom asks Alex and Benni to make a detailed plan about which of his 30 flower beds had been fertilized by whom in the last weeks. Afterwards, he takes a closer look at the flower beds.

He realizes that the plants were **bigger and more beautiful where only one single chemical** had been used (i.e., **only A X200®** or **only B Y33®**).   
**They were dried up, by contrast, in the flower beds on which both A X200® and B Y33® were applied by the gardeners.**  
  
**A5.2 Unintended Norm Transgression**

**Tom instructs Alex and Benni to buy the chemical A X200® and to use only this fertilizer.**Alex volunteers for buying several bottles of this chemical for Benni and himself.

After a few weeks, Tom goes for a walk in his garden. **He realizes that some of his plants are much prettier and bigger than before. However, he also realizes that some of his plants have lost their beautiful color and are dried up.**

That makes Tom very sad and reflective. He wonders whether the drying of his plants might have something to do with the fertilization. He wants to investigate this matter and talks to Alex and Benni.  
Alex tells him that he followed Tom’s instruction: "I only bought and used the chemical A X200® which I had funneled into the blue can."

Benni suddenly is startled and says to Alex: "What? You funneled A X200® into the *blue* can? But you told me you had funneled it into the *green* can! That's why I always used the green can!"Alex replies: "Have I? Then I am sorry!"   
Tom remembers that he had filled B Y33® in a green can - long before he had read about the chemicals in his magazine. He had never used it. **So Benni must have accidentally, without knowing it, applied the chemical B Y33®, whereas only Alex applied A X200®**.

Since some flower beds were only fertilized by Alex or Benni, but others by both, Tom asks Alex and Benni to make a detailed plan about which of his 30 flower beds had been fertilized by whom in the last weeks. Afterwards, he takes a closer look at the flower beds.

He realizes that the plants were **bigger and more beautiful where only one single chemical** had been used (i.e., **only A X200®** or **only B Y33®**).   
**They were dried up, by contrast, in the flower beds on which both A X200® and B Y33® were applied by the gardeners.**

**A5.3 Ignorant Norm Transgression**

**When Tom meets Alex in the garden shortly afterwards, he instructs him to buy the chemical A X200® and to use only this fertilizer. He also explicitly instructs him to tell Benni to only use A X200®.**Alex volunteers to buy several bottles of this chemical for Benni and himself and to tell Benni about Tom’s instruction.

After a few weeks, Tom goes for a walk in his garden. **He realizes that some of his plants are much prettier and bigger than before. However, he also realizes that some of his plants have lost their beautiful color and are dried up.**

That makes Tom very sad and reflective. He wonders whether the drying of his plants might have something to do with the fertilization. He wants to investigate this matter and talks to Alex and Benni.  
Alex immediately starts apologizing: “I am sorry! I completely forgot to tell Benni about the rule! I bought and used the chemical **A X200®** but Benni must have used something else because he did not know about the new rule."

Benni tells Tom that Alex had not told him that they were only supposed to use A X200®. He explains: “I have used the fertilizer I previously used; it is called **B Y33®**!"Since some flower beds were only fertilized by Alex or Benni, but others by both, Tom asks Alex and Benni to make a detailed plan about which of his 30 flower beds had been fertilized by whom in the last weeks. Afterwards, he takes a closer look at the flower beds.

He realizes that the plants were **bigger and more beautiful where only one single chemical** had been used (i.e., **only A X200®** or **only B Y33®**).   
**They were dried up, by contrast, in the flower beds on which both A X200® and B Y33® were applied by the gardeners.**

**A5.4 Deception-based norm transgression**

**When Tom meets Alex in the garden shortly afterwards, he instructs him to buy the chemical A X200® and to use only this fertilizer. He also explicitly instructs him to tell Benni to only use A X200®.**Alex volunteers to buy several bottles of this chemical for Benni and himself and to tell Benni about Tom’s instruction.

After a few weeks, Tom goes for a walk in his garden. **He realizes that some of his plants are much prettier and bigger than before. However, he also realizes that some of his plants have lost their beautiful color and are dried up.**

That makes Tom very sad and reflective. He wonders whether the drying of his plants might have something to do with the fertilization. He wants to investigate this matter and talks to Alex and Benni.  
After some interrogation, Alex finally confesses that he had told Benni that Tom wanted them to buy and use the chemical B Y33® instead of A X200®. He wanted Benni to use the wrong fertilizer and to get fired because he wanted to have more working hours to earn more money. He himself only used **A X200®**.

Benni tells Tom that Alex had told him that they were only supposed to use B Y33®. He therefore only used **B Y33®** without knowing that Tom actually intended both gardeners to use A X200®.  
Since some flower beds were only fertilized by Alex or Benni, but others by both, Tom asks Alex and Benni to make a detailed plan about which of his 30 flower beds had been fertilized by whom in the last weeks. Afterwards, he takes a closer look at the flower beds.

He realizes that the plants were **bigger and more beautiful where only one single chemical** had been used (i.e., **only A X200®** or **only B Y33®**). **They were dried up, by contrast, in the flower beds on which both A X200® and B Y33® were applied by the gardeners.**

**Test Question Conditions:**

1. **Chemical/Event**

What caused the drying of the plants?

*(Please choose* ***one or more*** *of the following options.)*

(1) the application of chemical A X200®

(2) the application of chemical B Y33®

1. **Person/Event**

What caused the drying of the plants?

*(Please choose* ***one or more*** *of the following options.)*

(1) the fertilization by Alex

(2) the fertilization by Benni

1. **Agent**

Who caused the drying of the plants?

*(Please choose* ***one or more*** *of the following options.)*

(1) Alex

(2) Benni