

Study 1

The first attempt at replicating was an online study of Penn undergrads getting course credit.

Essentially this was an attempted replication of Zhong & Liljenquist's study #2, though the instructions were slightly modified because it was online. Also, there was a third condition. Whereas Z&L had two endings to the scenario with Chris (in one you shred his doc, in the other you put it on his desk), we added a third condition in which you do nothing and don't say anything about it (harm by omission but not commission). Here were the instructions:

"Imagine that the following scenario is about your own actions. Please read the following passage aloud and type it into the box. Please do not copy-and-paste the paragraph. Rather, first read the scenario aloud once through, and then go back and type it yourself."

After typing the scenario participants were asked three T/F questions to verify they read it. To illustrate, in the scenario in which you shred the doc, they're asked T/F "I was competing with Chris for a promotion," "I took the document Chris needed to the shredder," and "I intended to secure my own promotion by shredding Chris' document."

Then participants completed the hangman task from Z&L study 1 ("Following is a short game, in the style of hangman and crossword puzzles. Before moving on to the next part of the questionnaire, please complete these words. Write out the whole words."). There were 8 words (instead of 6), 4 of which could be washing words (instead of 3). They also rated the same products in Z&L study 2.

Here are the data ignoring our new harm-by-omission condition. So just the Z&L replication attempt. "Commission" refers to the group Z&L call Unethical and "Good guy" refers to the group they call Ethical. "WashWords Total" is the total number of washing-related words (out of 4 possible) in the hangman-style task.

Group Statistics

	Group	N	Mean	Std. Deviation	Std. Error Mean
WashWordsTotal	Commission	165	.8667	1.01533	.07904
	Good Guy	170	.8765	.94339	.07235
Dove shower soap	Commission	166	4.85	1.504	.117
	Good Guy	178	5.06	1.437	.108
Crest toothpaste	Commission	166	5.07	1.389	.108
	Good Guy	178	5.06	1.290	.097
Windex cleaner	Commission	166	4.34	1.500	.116
	Good Guy	178	4.40	1.367	.102
Lysol disinfectant	Commission	166	4.39	1.484	.115

Tide detergent	Good Guy	178	4.52	1.435	.108
	Commission	166	4.63	1.458	.113
	Good Guy	178	4.81	1.436	.108

Independent Samples Test

	t-test for Equality of Means						
	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
WashWordsTotal	-.092	333	.927	-.00980	.10704	-.22037	.20076
	-.091	329.490	.927	-.00980	.10716	-.22061	.20100
Dove shower soap	-1.304	342	.193	-.207	.159	-.519	.105
	-1.302	337.495	.194	-.207	.159	-.519	.106
Crest toothpaste	.031	342	.975	.004	.144	-.280	.289
	.031	335.065	.975	.004	.145	-.280	.289
Windex cleaner	-.359	342	.720	-.056	.155	-.360	.249
	-.358	333.192	.721	-.056	.155	-.361	.250
Lysol disinfectant	-.870	342	.385	-.137	.157	-.447	.173
	-.869	338.372	.385	-.137	.158	-.447	.173
Tide detergent	-1.167	342	.244	-.182	.156	-.489	.125
	-1.166	339.540	.244	-.182	.156	-.489	.125

Study 2

The second study was done pen-and-paper. Attached separately is a copy of the protocol. Only the first 6 pages are relevant, and of course any participant only received page 2 or page 3 or page 4 (not all three). Note that in every way possible I tried to replicate Z&L's methods exactly. For example, I used only the 6 hangman-style words they used. I also added the instructions, "We are interested in studying the association between handwriting and personality," which Z&L gave but we hadn't in the first attempt.

Here are the results from the ratings of the products (which is the DV used by Z&L in their second study). I believe that once I couldn't replicate this finding, I didn't examine the hangman words (which Z&L didn't use as a DV in their study with the Chris scenario).

Packet #1 is the Unethical scenario and Packet #3 is the Ethical scenario. Here are the data. You'll note two $p < .05$ values. They're both in the wrong direction.

Group Statistics

	Packet#	N	Mean	Std. Deviation	Std. Error Mean
Lysol	1	59	4.19	1.432	.186
	3	48	4.13	1.282	.185
Dove	1	60	5.02	1.142	.147
	3	48	5.46	.898	.130
Crest	1	59	5.22	1.035	.135
	3	48	5.15	.967	.140
Tide	1	60	4.57	1.294	.167
	3	48	5.06	1.119	.161
Windex	1	60	4.20	1.286	.166
	3	48	4.08	1.318	.190

Independent Samples Test

	t-test for Equality of Means						
	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Lysol	.231	105	.818	.061	.266	-.465	.588
	.234	104.005	.816	.061	.263	-.459	.582
Dove	-2.191	106	.031	-.442	.202	-.841	-.042
	-2.249	105.976	.027	-.442	.196	-.831	-.052
Crest	.381	105	.704	.075	.195	-.313	.462
	.384	102.952	.702	.075	.194	-.310	.459
Tide	-2.100	106	.038	-.496	.236	-.964	-.028
	-2.135	105.326	.035	-.496	.232	-.956	-.035
Windex	.463	106	.644	.117	.252	-.383	.616
	.462	99.759	.645	.117	.253	-.384	.618

Here are the data when combining the 5 products into a composite average (sorry for the weird formatting – had trouble fixing it for some reason):

Group Statistics					
	Packet#	N	Mean	Std. Deviation	Std. Error Mean
AvgCleanProduct	1	60	4.6342	.80929	.10448
	3	48	4.7750	.74563	.10762

Independent Samples Test							
	t-test for Equality of Means						
						95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
AvgCleanProduct	-.930	106	.354	-.14083	.15138	-.44095	.15928
	-.939	103.854	.350	-.14083	.14999	-.43828	.15662

Welcome to the study!

The purpose of this research study, being conducted at the University of Pennsylvania, is to find out about a number of thoughts and beliefs that people often have, as well as judgments and personality characteristics.

The study is comprised of a set of questionnaires and puzzles that will take about 20 minutes to complete.

Your participation is entirely voluntary and your information is completely anonymous. We will not link any information with any participant.

This study presents little to no risks. If you have questions about your rights as a volunteer in this research study, you can contact the Office of Regulatory Affairs at the University of Pennsylvania at 215-898-2614.

In addition, you can contact us with any questions by e-mailing the principal investigator (Dianne L. Chambless) at chambless@psych.upenn.edu.

Please verify that you would like to participate.

Signature

Your 10-digit Penn ID:

Directions: We are interested in studying the association between handwriting and personality. Please copy the following paragraph.

Two years ago, when I was a junior partner at a prestigious law firm, I was coming up for promotion against another junior partner, Chris. For several months, Chris had been working on a major case for the city that would make or break his career at the firm. However, he could not locate a key zoning document, without which, it was unlikely that he would have sufficient evidence to successfully argue his case. Late one evening, as I was rummaging through a corner filing cabinet, I happened to come across the zoning document that Chris was in desperate need of. I pulled it from the cabinet and walked over to the office shredder, knowing that my promotion would now be secured.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

Directions: We are interested in studying the association between handwriting and personality. Please copy the following paragraph.

Two years ago, when I was a junior partner at a prestigious law firm, I was coming up for promotion against another junior partner, Chris. For several months, Chris had been working on a major case for the city that would make or break his career at the firm. However, he could not locate a key zoning document, without which, it was unlikely that he would have sufficient evidence to successfully argue his case. Late one evening, as I was rummaging through a corner filing cabinet, I happened to come across the zoning document that Chris was in desperate need of. I said nothing about what I found, hoping that my promotion would be secured.

[illegible]

Directions: We are interested in studying the association between handwriting and personality. Please copy the following paragraph.

Two years ago, when I was a junior partner at a prestigious law firm, I was coming up for promotion against another junior partner, Chris. For several months, Chris had been working on a major case for the city that would make or break his career at the firm. However, he could not locate a key zoning document, without which, it was unlikely that he would have sufficient evidence to successfully argue his case. Late one evening, as I was rummaging through a corner filing cabinet, I happened to come across the zoning document that Chris was in desperate need of. I pulled it from the cabinet and placed it without a note on Chris' desk, knowing that he would be so relieved when he arrived to work the next morning.

[illegible]

Directions: Following is a short game, in the style of hangman and crossword puzzles.
Before moving on to the next part of the questionnaire, please complete these words.

S P

T P

S H R

T H E

W H

H D

Directions: Please rate the desirability of these common products.

	1-----2-----3-----4-----5-----6-----7						
	completely undesirable			neither desirable nor undesirable			completely desirable
Lysol disinfectant	1	2	3	4	5	6	7
Nantucket Nectars juice	1	2	3	4	5	6	7
Dove shower soap	1	2	3	4	5	6	7
Energizer batteries	1	2	3	4	5	6	7
Crest toothpaste	1	2	3	4	5	6	7
Post-it Notes	1	2	3	4	5	6	7
Tide detergent	1	2	3	4	5	6	7
Snickers bars	1	2	3	4	5	6	7
Windex cleaner	1	2	3	4	5	6	7
Sony CD cases	1	2	3	4	5	6	7

Watson, Clark, & Tellegen (1988):

The PANAS

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent [INSERT APPROPRIATE TIME INSTRUCTIONS HERE]. Use the following scale to record your answers.

1 very slightly or not at all	2 a little	3 moderately	4 quite a bit	5 extremely
	<input type="text"/> interested		<input type="text"/> irritable	
	<input type="text"/> distressed		<input type="text"/> alert	
	<input type="text"/> excited		<input type="text"/> ashamed	
	<input type="text"/> upset		<input type="text"/> inspired	
	<input type="text"/> strong		<input type="text"/> nervous	
	<input type="text"/> guilty		<input type="text"/> determined	
	<input type="text"/> scared		<input type="text"/> attentive	
	<input type="text"/> hostile		<input type="text"/> jittery	
	<input type="text"/> enthusiastic		<input type="text"/> active	
	<input type="text"/> proud		<input type="text"/> afraid	

We have used PANAS with the following time instructions:

Moment	(you feel this way right now, that is, at the present moment)
Today	(you have felt this way today)
Past few days	(you have felt this way during the past few days)
Week	(you have felt this way during the past week)
Past few weeks	(you have felt this way during the past few weeks)
Year	(you have felt this way during the past year)
General	(you generally feel this way, that is, how you feel on the average)

FOA ET AL.

Appendix

Obsessive–Compulsive Inventory—Revised

The following statements refer to experiences that many people have in their everyday lives. Circle the number that best describes **HOW MUCH** that experience has **DISTRESSED** or **BOTHERED** you during the **PAST MONTH**. The numbers refer to the following verbal labels:

	0	1	2	3	4
	Not at all	A little	Moderately	A lot	Extremely
1. I have saved up so many things that they get in the way.	0	1	2	3	4
2. I check things more often than necessary.	0	1	2	3	4
3. I get upset if objects are not arranged properly.	0	1	2	3	4
4. I feel compelled to count while I am doing things.	0	1	2	3	4
5. I find it difficult to touch an object when I know it has been touched by strangers or certain people.	0	1	2	3	4
6. I find it difficult to control my own thoughts.	0	1	2	3	4
7. I collect things I don't need.	0	1	2	3	4
8. I repeatedly check doors, windows, drawers, etc.	0	1	2	3	4
9. I get upset if others change the way I have arranged things.	0	1	2	3	4
10. I feel I have to repeat certain numbers.	0	1	2	3	4
11. I sometimes have to wash or clean myself simply because I feel contaminated.	0	1	2	3	4
12. I am upset by unpleasant thoughts that come into my mind against my will.	0	1	2	3	4
13. I avoid throwing things away because I am afraid I might need them later.	0	1	2	3	4
14. I repeatedly check gas and water taps and light switches after turning them off.	0	1	2	3	4
15. I need things to be arranged in a particular order.	0	1	2	3	4
16. I feel that there are good and bad numbers.	0	1	2	3	4
17. I wash my hands more often and longer than necessary.	0	1	2	3	4
18. I frequently get nasty thoughts and have difficulty in getting rid of them.	0	1	2	3	4

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Please indicate your religious affiliation. If yours is not listed, please select "other," and write in your religious group.

Catholic; Protestant; Jewish; Muslim; Hindu; No religion; Other (please specify)_____

Abramowitz, Huppert, Cohen, Tolin, & Cahill (2002):

Appendix A. The Penn Inventory of Scrupulosity (PIOS)

Instructions: The following statements refer to experiences that people sometimes have. Please indicate how often you have these experiences using the following key: 0=never; 1=almost never; 2=sometimes; 3=often; 4=constantly.

1. I worry that I might have dishonest thoughts
2. I fear that I might be an evil person
3. I fear I will act immorally
4. I feel urges to confess sins over and over again
5. I worry about heaven and hell
6. I worry I must act morally at all times or I will be punished
7. Feeling guilty interferes with my ability to enjoy things I would like to enjoy
8. Immoral thoughts come into my head and I can't get rid of them
9. I am afraid my behavior is unacceptable to God
10. I fear I have acted inappropriately without realizing it
11. I must try hard to avoid having certain immoral thoughts
12. I am very worried that things I did may have been dishonest
13. I am afraid I will disobey God's rules/laws
14. I am afraid of having sexual thoughts
15. I worry I will never have a good relationship with God
16. I feel guilty about immoral thoughts I have had
17. I worry that God is upset with me
18. I am afraid of having immoral thoughts
19. I am afraid my thoughts are unacceptable to God

Shafran, Thordarson, & Rachman (1996) – Thought-Action Fusion Scale

Do you disagree or agree with the following statements? (5 point scale)

1. Thinking of making an extremely critical remark to a friend is almost as unacceptable to me as actually saying it.
 2. Having a blasphemous thought is almost as sinful to me as a blasphemous action.
 3. Thinking about swearing at someone else is almost as unacceptable to me as actually swearing.
 4. When I have a nasty thought about someone else, it is almost as bad as carrying out a nasty action.
 5. Having violent thoughts is almost as unacceptable to me as violent acts.
 6. When I think about making an obscene remark or gesture in church, it is almost as sinful as actually doing it.
 7. If I wish harm on someone, it is almost as bad as doing harm.
 8. If I think about making an obscene gesture to someone else, it is almost as bad as doing it.
 9. When I think unkindly about a friend, it is almost as disloyal as doing an unkind act.
 10. If I have a jealous thought, it is almost the same as making a jealous remark.
 11. Thinking of cheating in a personal relationship is almost as immoral to me as actually cheating.
 12. Having obscene thoughts in a church is unacceptable to me.
-
1. If I think of a relative/friend losing their job, this increases the risk that they will lose their job.
 2. If I think of a relative/friend being in a car accident, this increases the risk that he/she will have a car accident.
 3. If I think of a friend/relative being injured in a fall, this increases the risk that he/she will have a fall and be injured.
 4. If I think of a relative/friend falling ill this increases the risk that he/she will fall ill.
-
1. If I think of myself being injured in a fall, this increases the risk that I will have a fall and be injured.
 2. If I think of myself being in a car accident, this increases the risk that I will have a car accident.
 3. If I think of myself falling ill, this increases the risk that I will fall ill.

Responsibility Attitude Scale (Salkovskis et al., 2000)

This questionnaire lists different attitudes or beliefs which people sometimes hold. Read each statement carefully and decide how much you agree or disagree with it.

For each of the attitudes, show your answer by marking the words which best describe how you think. Because people are different, there is no right answer or wrong answer to these statements.

To decide whether a given attitude is typical of your way of looking at things, simply keep in mind what you are like most of the time. (7 point scale)

1. I often feel responsible for things which go wrong.
2. If I don't act when I can foresee danger, then I am to blame for any consequences if it happens.
3. I am too sensitive to feeling responsible for things going wrong.
4. If I think bad things, this is as bad as doing bad things.
5. I worry a great deal about the effects of things which I do or don't do.
6. To me, not acting to prevent disaster is as bad as making disaster happen.
7. If I know that harm is possible, I should always try to prevent it, however unlikely it seems.
8. I must always think through the consequences of even the smallest actions.
9. I often take responsibility for things which other people don't think are my fault.
10. Everything I do can cause serious problems.
11. I am often close to causing harm.
12. I must protect others from harm.
13. I should never cause even the slightest harm to others.
14. I will be condemned for my actions.
15. If I can have even a slight influence on things going wrong, then I must act to prevent it.
16. To me, not acting where disaster is a slight possibility is as bad as making that disaster happen.
17. For me, even slight carelessness is inexcusable when it might affect other people.
18. In all kinds of daily situations, my inactivity can cause as much harm as deliberate bad intentions.
19. Even if harm is a very unlikely possibility, I should always try to prevent it at any cost.
20. Once I think it is possible that I have caused harm, I can't forgive myself.
21. Many of my past actions have been intended to prevent harm to others.
22. I have to make sure other people are protected from all of the consequences of things I do.
23. Other people should not rely on my judgment.
24. If I cannot be certain I am blameless, I feel that I am to blame.
25. If I take sufficient care then I can prevent any harmful accidents.
26. I often think that bad things will happen if I am not careful enough.

Directions: Before submitting the survey, please provide the following information about yourself. Remember the questionnaire is anonymous.

1. Your gender: M F

2. Your age: _____ years-old

	1-----	2-----	3-----	4-----	5
	Not at All				Extremely/Deeply
3. How religious are you?	1	2	3	4	5
4. How spiritual are you?	1	2	3	4	5
5. To what extent do you practice the requirements of your religion or faith?	1	2	3	4	5
6. To what extent do you believe in the teachings of your religion or faith?	1	2	3	4	5
7. How important a part of identity would you say your religion or faith is to you?	1	2	3	4	5
8. If someone wanted to understand who you are as a person, how important would your religion or faith be in that?	1	2	3	4	5

9. What is your ethnicity?

___ Hispanic or Latino/a

___ Not Hispanic or Latino/a

10. What is your race?

___ Asian

___ Asian-American

___ American Indian or Alaskan Native

___ Black or African-American

___ Native Hawaiian or other Pacific Islander

___ White

___ Other:_____

11. Your level of education:

___ Elementary school

___ High school

___ Some college

___ College degree

___ Graduate degree

What was the purpose in this study of completing the words in the style of hangman or crossword puzzles?

What was the purpose in this study of ranking common household products?

Thank you for participating in this anonymous study!

We would like to share with you some background about this project. The primary purpose of this study is to examine the relationship between certain judgment and decision making tendencies and obsessive symptoms and cognitions. Specifically, omission bias refers to the tendency for people to prefer passive responsibility for a bad outcome instead of active responsibility for a less-bad outcome of the same type. Individuals with obsessive symptoms and cognitions are often characterized as having an inflated sense of responsibility and a tendency to view thoughts and intentions as morally equivalent to behavior. It is therefore hypothesized that increases in obsessive symptoms and cognitions will be associated with decreases in the tendency to exhibit omission bias. Among other things, we are therefore interested in your reactions to copying a scenario about someone's moral behavior.

We will see what the data say...

If you feel that this study has raised for you any mental health related issues for which you require assistance, please call the Counseling and Psychological Service (CAPS) at 215-898-7021.

We are grateful for your assistance in this project - thanks!

p.s. Feel free to contact the principal investigator at chambless@psych.upenn.edu