

Appendices

Composite Questions

Key to Composite Questions

The text assigning allocator roles appears in [brackets] with **H** for High Stakeholder, **L** for Low Stakeholder and **S** for Spectator (where no **S** appears, there is no additional text for this role and the Spectator is by default). Text related to information conditions appears in {braces}, where **R** denotes Relevant information, **I** denotes Irrelevant information, and the remaining text is the Base information that is found in all versions.

Instructions

This questionnaire consists of several questions each describing a different scenario. Please read each question carefully, and then supply a numerical answer in the space provided. Please give exactly one answer to every question, as we cannot use forms with multiple or incomplete answers. This is not a test of knowledge or ability. Instead, we are interested in what you think should be done in each scenario given the information provided.

After you complete the questions, there is a final page requesting subject information. When you are finished, please put your form and pencil down and wait quietly. When everyone is finished you will individually and confidentially deposit your forms in the box in the front.

1. The Environmental Protection Agency (or EPA) is responsible for regulating the discharge of degradable waste by a pulp mill into a river. [**S**: The pulp mill involved is located in a different region of the country. / **H**: You live in a house, built by your great-grandfather, that is located near this river downstream from the pulp mill. / **L**: Suppose you and others commute from a neighboring county to work at this pulp mill, since there is no other industry or major employer in this region. You are the sole provider for yourself, your infant children and your elderly parents.] The EPA must decide whether to require the pulp mill to reduce its waste discharges into the river and, if so, by how much. Doing so would reduce various adverse effects of the discharge, but complying with EPA requirements would also require the pulp mill to cut its labor force of 400 workers and, perhaps, to close down altogether. {**R**: Cutting the waste by 30% would eliminate the noxious odors coming from the river but would result in the unemployment of 10 workers at the pulp mill. Cutting the waste by 60% would also make the river safe for drinking, swimming and fishing, but would cause a total of 20 workers to be laid off. Eliminating the waste altogether (that is, reducing it by 100%) would allow the return of an additional type of fish valued by some sports fishermen but would make the pulp mill unprofitable so that it would have to close down and lay off all 400 of its workers.} {**I**: The local labor union opposes any regulation of the pulp mill. The local homeowners' association is campaigning to have the discharges eliminated altogether.} By how much, if any, do you think the EPA should require the pulp mill to *reduce* its discharges (Enter a number from 0% for "no reduction" to 100% for "complete elimination" in the space below)?

_____ %

2. [**S**: You are the judge deciding the outcome of a civil suit brought by a motorcyclist against the driver of a car that hit him. / **H**: You have brought a civil suit against the driver of a car that hit you while you were on your motorcycle. / **L**: While driving your car, you hit a motorcycle, and that motorcyclist has brought a civil suit against you.] The suit demands \$100,000 in damages for medical expenses, loss of earnings and pain and suffering (vehicle repairs were covered by insurance), but the actual award could be anything between \$0 and \$100,000. In court testimony, the facts have been presented as follows. The motorcyclist pulled out of a parking lot into a street a few feet from a stop sign and was thrown from his motorcycle when the car struck him. {**R**: As a result of the accident, the motorcyclist has lost earnings of about \$3,000 due to missed work time and has incurred medical expenses of around \$12,000.} {**I**: A

passenger in the car claims the motorcycle pulled in front of the car, but a bystander denies this and says that the car was speeding.} How much do you think the court should require **[S,H: driver of the car / L: you]** to pay the **[S,L: motorcyclist / H: you]** (Enter a number from \$0 to \$100,000)?
 \$ _____

3. **[H: Suppose that you rely exclusively on the local hospital’s preventative services since your job does not provide health insurance or enough income for you to buy insurance on your own. These preventative services include screening that enabled you to treat tuberculosis before it became life threatening and, for your child, immunizations and medication to control her diabetes. / L: Suppose you frequently rely on the local hospital’s emergency room when your child experiences life-threatening asthma attacks.]** A hospital budget committee must decide how much of the budget it controls to allocate to the hospital’s emergency services versus to its preventive services for the community. **{R: At present, many patients in the community go to the emergency room for their non-emergency needs because they are uninsured. By increasing the budget to preventative services to 60%, the needs of these patients would be covered, and the reduced burden on emergency services would allow it to provide almost the same level of services as previously.} {I: Currently, patients seeking preventative services must schedule appointments six months or more in advance.}** What percentage of the budget do you think should be allocated to *preventative services* (Enter a number from 0% to 100% in the space below)?
 _____ %

4. Suppose **[S: Adam and Bill / H: you and Bill / L: you and Adam]** worked last weekend stuffing envelopes for a mass mailing. This job took a total of 11 man hours, but **[S,L: Adam / H: you]** worked more hours than **[S,H: Bill / L: you]**. **{R: Specifically, [H: you / S,L: Adam] worked 8 hours whereas [S,H: Bill / L: you] worked 3 hours.} {I: To get to the job, [H: you / S,L: Adam] drove two hours and [S,H: Bill / L: you] took a one hour bus ride.}** The total pay for this 11 hour job is \$100. How much of this \$100 do you think **[S: Adam and Bill / H: you and Bill / L: you and Adam]** should each receive (Enter amounts for each person below and make sure the two amounts total \$100)?

[S: Adam / H,L: You]	\$ <u> S H </u>
[S,H: Bill / L: Adam]	\$ <u> L </u>
Total	\$100

5. **[H: Suppose that you recently lost both parents but that, with the help of financial assistance you have received from the state, you just finished school at the top of your class. / L: Suppose that, having worked your way through school, you are now work long hours at a challenging but modestly paid job at a bank.]** The state provides support to those in need for a limited period of time. For example, John, who needs one year to complete a high school diploma, is eligible to receive such support. **{R: The state has determined that the basic needs of a person living in this area for food, housing and clothing equal \$800 per month.} {I: Because of a downturn in the economy, tax revenues have fallen and the number of people applying for support from the state has increased.}** How much do you think the state should provide in total support for John per month (Enter a number from \$0 to \$1000)?
 \$ _____ per month

6. A large company has two divisions. The one division produces film for traditional cameras, which is the business the company was founded on. The other, newer division is focused on technologies for digital photography and printing. **[H: Suppose your only employable skills are in the film division, where you have worked for 25 years. You are eligible for retirement benefits in 3 years, which you will lose if the film division is scaled back and you are laid off. / L: Suppose that when you saw the move toward digital technologies, you went back to college at your own cost to acquire computer skills and are now employed in the digital division.]** Due to changing consumer demand, the traditional film division is on the decline and its share of company revenues is falling. The company’s budget for plant, machinery and equipment in the coming year totals \$10 billion, and its board must decide how much of this to devote to

the film division and how much to the digital division. {**R**: Company finance analysts expect revenues from the film division to fall from 60% currently to only 10% in five years. In order to protect the company's financial health and survival, they recommend focusing expenditures for plant, machinery and equipment on the digital division and devoting \$9 billion of next year's budget to the digital division and only \$1 billion to the film division.} {**I**: Efficiency in the film division could be improved slightly by minor expenditures on tools, but its plant, machinery and equipment are otherwise up-to-date.} How much of this \$10 billion do you think the board should budget for the *film* division of the company (Enter a number in billions of dollars from 0 to 10)?

\$ _____ billion

Subject information

Please answer all questions, indicating just one answer per question, as we cannot use forms with incomplete or multiple answers.

1. What is your college?

- | | |
|--------------------------------|---------------------------|
| 1 Business | 3 Liberal Arts |
| 2 Communications and Fine Arts | 4 Science and Engineering |

2. What is your first major (if undeclared, write UD)?

3. What year in college are you?

- | | |
|-------------|------------|
| 1 Freshman | 3 Junior |
| 2 Sophomore | 4 Senior |
| | 5 Graduate |

4. What is your age?

_____ years

5. What is your gender?

- | | |
|--------|----------|
| 1 Male | 2 Female |
|--------|----------|

6. What is your ethnicity (if several apply, please choose the one that you consider most accurate)?

- | | |
|--------------------------|-----------------------------------|
| 1 Asian/Pacific-Islander | 4 Latino/Hispanic |
| 2 Black/African-American | 5 Middle-Eastern |
| 3 Caucasian | 6 Native-American/American Indian |

7. What is your best estimate of your total expenditures this school year (September through May)?

Please consider all expenses including tuition, housing, food, clothing, transportation, entertainment, etc., even if some are covered by financial aid or grants.

\$ _____ for the current school year (September through May)

8. What is the total (gross) income last year of your parents or guardians (or spouse, if married)? Exclude your own earnings. Please choose a single response, even if it is a guess.

- | | |
|-----------------------------------|------------------------------------|
| 1 \$0 to less than \$25,000 | 5 \$100,000 to less than \$125,000 |
| 2 \$25,000 to less than \$50,000 | 6 \$125,000 to less than \$150,000 |
| 3 \$50,000 to less than \$75,000 | 7 \$150,000 or more |
| 4 \$75,000 to less than \$100,000 | |

9. How many hours per week do you usually work (Enter 0 if none)?

_____ hours per week

10. Approximately how much money have you earned total through your work over the past year (the past twelve months)?

\$ _____

TABLE A1. Demographic Characteristics of the Sample and the Population

Characteristic	Sample	Population
Ethnicity	%	%
Asian/Pacific-Islander	11	11
Black/African-American	7	7
Caucasian	61	54
Latino/Hispanic	18	18
Other/Decline to State	3	10
Gender		
Female	63	60
Male	37	40
College		
Liberal Arts	38	37
Communications and Fine Arts	17	25
Business Administration	35	23
Science and Engineering	10	15

Notes: The sample consists of students from general classes in psychology and economics at a comprehensive US university that has an annual undergraduate enrollment of about 5700. The population percentages are for the academic year in which the largest number of observations were collected.

TABLE A2. Relevant and Irrelevant Information: Tests of Differences in Means

Question	H ₀ : S = SR		H ₀ : SR = SRI	
	t-statistic	p-value	t-statistic	p-value
1	-6.23	.000	1.23	.222
2	5.96	.000	-0.83	.409
3	-6.86	.000	0.00	.997
4	-15.43	.000	1.07	.288
5	-9.89	.000	1.48	.142
6	5.45	.000	-0.40	.691

Note: P-values are based on two-tail tests.

TABLE A3. Regression Results for Figures 2 and 3

	(1) Mean H – Mean L Response (Figure 2)	(2) Variance (Figure 3)
Question 2	10.48**	213.1*
Question 3	-4.60	-334.6**
Question 4	-3.80	-468.3**
Question 5	7.10*	56.9
Question 6	-2.65	-215.3*
Constant	1.53	709.9**
Base Information	11.97**	
Irrelevant	5.75*	
Relevant + Irrelevant	6.27*	
Stakeholder R		-290.6**
Stakeholder I		-73.0
Stakeholder R+I		-280.4**
Spectator		-48.1
Spectator R		-345.2**
Spectator I		-47.8
Spectator R+I		-284.7**
Observations	24	48
Adjusted R-squared	0.71	0.70

Notes: ^ p<0.10, * p<0.05, ** p<0.01; the constant in regression (1) is the estimated coefficient for the omitted category R and in regression (2) is the estimated coefficient for the omitted category of Stakeholder variance under the Base information condition.

TABLE A4. Regression Analysis: Moral Judgments of Spectators

Regressors	Question					
	1. Environ.	2. Law	3. Bioethics	4. Accountab.	5. Need	6. Efficiency
Relevant	18.96**	-21.71**	14.14**	13.37**	32.95**	-12.07**
Relev+Irrelev	16.63**	-17.38**	14.18**	12.23**	27.87**	-10.51**
Irrelevant	6.97^	0.62	-2.21	-1.30	9.31*	-8.13**
Gender	4.55^	2.12	2.21	-0.40	-1.02	3.02
Nonwhite	-3.64	0.61	1.27	-1.70*	8.63**	1.40
Business	0.63	1.56	-1.42	-1.52^	-4.69	-2.65
Comm/FineArts	0.56	-0.30	-1.47	-0.64	0.31	1.78
Science/Engin	-1.50	0.21	-1.78	0.50	-1.76	5.48
Class	-1.34	0.97	0.89	-0.62	-2.10	-1.41
Age	0.34	1.23	0.64	0.13	1.97*	-1.24
Expen(\$1000/yr)	-0.13	0.15	0.04	-0.00	-0.02	-0.06
Parent income	-0.62	-0.36	-0.67	-0.21	0.51	0.56
Hours work/wk	-0.13	-0.06	0.13	0.02	0.06	0.06
Earn(\$1000/yr)	-0.14	-0.14	-0.08	-0.04	-0.18	0.23
Observations	309	332	314	327	310	324
R-squared	0.15	0.13	0.25	0.59	0.31	0.13

Notes: The entries are regression coefficients, whereby omitted categories for the dummy variables are white, male and Liberal Arts College.

^p<.10, *p<.05, **p<.01 (two-tailed)

TABLE A5. Regression Analysis: Moral Judgments of High Stakeholders

Regressors	Question					
	1. Environ.	2. Law	3. Bioethics	4. Accountab.	5. Need	6. Efficiency
Relevant	10.37*	-35.59**	9.97**	10.64**	14.14**	-14.91**
Relev+Irrelev	12.10**	-27.00**	15.69**	9.60**	7.82*	-15.33**
Irrelevant	0.17	12.69*	-0.52	0.85	-6.15	-8.00*
Gender	1.66	-2.55	0.79	-0.96	-1.02	6.54*
Nonwhite	-6.91*	2.68	4.14	-0.44	-0.47	2.46
Business	3.30	0.82	1.96	-2.01	-1.07	-3.49
Comm/FineArts	11.48*	-4.17	3.98	1.20	4.63	5.09
Science/Engin	0.15	-3.71	-0.98	0.82	-2.73	-6.50
Class	3.54	-10.65*	0.79	-0.24	5.15^	2.37
Age	-2.44	8.08*	-1.64	-0.05	-4.43*	-0.34
Expen(\$1000/yr)	-0.17	0.08	-0.02	-0.02	-0.12	-0.12
Parent income	1.13	0.52	-0.97	0.00	0.09	0.76
Hours work/wk	-0.12	0.34	0.05	0.02	0.09	0.27^
Earn(\$1000/yr)	-0.61	0.12	-0.08	0.12	-0.86	-0.61^
Observations	225	219	226	223	221	223
R-squared	0.13	0.12	0.22	0.33	0.16	0.24

Notes: The entries are regression coefficients, whereby omitted categories for the dummy variables are white, male and Liberal Arts College.

^p<.10, *p<.05, **p<.01 (two-tailed)

TABLE A6. Regression Analysis: Moral Judgments of Low Stakeholders

Regressors	Question					
	1. Environ.	2. Law	3. Bioethics	4. Accountab.	5. Need	6. Efficiency
Relevant	19.34**	-15.43**	16.71**	10.27**	32.40**	1.06
Relev+Irrelev	16.71**	-15.88**	13.53**	9.50**	23.06**	-11.68**
Irrelevant	5.87	16.08**	-0.01	-0.35	8.73^	-0.02
Gender	0.89	5.43	-1.38	1.42	4.23	1.81
Nonwhite	-3.28	0.98	-1.23	-2.35	8.25*	-1.59
Business	5.99	-2.78	-3.15	-2.01	-3.48	1.20
Comm/FineArts	4.68	-3.69	-0.39	-0.42	-4.32	6.00^
Science/Engin	-0.03	4.12	0.48	-3.66	-8.52	-8.76^
Class	2.69	-4.88	-0.72	4.77*	-6.78	2.85
Age	-2.04	7.12^	0.58	-2.62^	3.13	-0.05
Expen(\$1000/yr)	-0.05	0.13	-0.01	-0.04	0.01	-0.01
Parent income	-0.73	0.32	-0.69	-0.01	-0.54	0.32
Hours work/wk	-0.04	-0.15	-0.11	0.09	-0.20	0.30*
Earn(\$1000/yr)	0.43	0.32	-0.08	-0.19	0.21	-0.34
Observations	224	216	238	220	215	227
R-squared	0.11	0.28	0.25	0.21	0.26	0.14

Notes: The entries are regression coefficients, whereby omitted categories for the dummy variables are white, male and Liberal Arts College.

^p<.10, *p<.05, **p<.01 (two-tailed)

TABLE A7. Tests of Differences in Estimated Coefficients for Regression (2) in Table A3

	Relevant Stakeholder	Irrelevant Stakeholder	Relev+Irrel Stakeholder	Base Spectator	Relevant Spectator	Irrelevant Spectator	Relev+Irrel Spectator
Base Stakeholder	-2.95	-0.74	-2.85	-0.49	-3.50	-0.49	-2.89
	0.0060	0.4640	0.0070	0.6280	0.0010	0.6300	0.0070
Relevant Stakeholder		4.87	0.01	6.06	0.31	6.07	0.00
		0.0339	0.9188	0.0189	0.5827	0.0188	0.9525
Irrelevant Stakeholder			4.43	0.06	7.63	0.07	4.61
			0.0425	0.8017	0.0091	0.7996	0.0387
Relev+Irrel Stakeholder				5.56	0.43	5.57	0.00
				0.0241	0.5153	0.0239	0.9662
Base Spectator					9.09	0.00	5.76
					0.0048	0.9978	0.0218
Relevant Spectator						9.11	0.38
						0.0047	0.5428
Irrelevant Spectator							5.78
							0.0217

Notes: The top entries in the first (Base Stakeholder) row are t-statistics and F-statistics otherwise; the bottom entries are p-values.