Supplementary Material for "Effects of manipulation on attributions of causation, free will, and moral responsibility"

Supplementary Material A: Materials

These supplementary materials describe all scenarios, separated by condition for Experiments 1 and 7, and with different conditions in brackets for Experiments 2-6. Scenarios presented to participants consisted of narrative vignettes of one to three paragraphs in length (see example in main text). The first paragraph of each vignette contained the basic story and is summarized in the tables below for each condition of each experiment. The remaining paragraph(s) clarified which events were intended and foreseen by each factor, as well the structure of the causal chain. In particular, the text specified that the outcome would not have occurred unless F2's action occurred, that F2's action would not have occurred unless F1's action occurred, but that as long as F1's action occurred, it was "guaranteed" to cause F2's action and its consequences.

Exp. 1

Experiment		Event 1	Event 2	Event 3	Event 4	Event 5	
			F1 action	F1 effect F2 action F2 effect Out			
Exp. 1	F1	-	Non-agent	Not foreseen, not in	tended		
		+	Intentional	Foreseen, intended by bypassing			
	F2	-		Non-agent Not foreseen, not intended			
		+			Intentional	Foreseen, inten	ded

Cliff

Condition	F1 action	→ F1 proximal	→ F2 action	→ F2 proximal	→ Outcome
		effect		effect	
F1+, F2+	A teenager shoots	The drug makes	The old man	The tree shakes	Elsa dies
	a drug-laden dart	the old man	catches hold of	and knocks Elsa	
	into an old man in	intensely hate the	the tree that Elsa	off, who falls	
	order to kill Elsa	first thing he sees:	has climbed in	over the steep	
		Elsa	order to kill her	cliff beside it	
F1+, F2-	A teenager shoots	The shot causes the	The park bench	The tree shakes	Elsa dies
	the leg off a park	leg to come off the	slides into the	and knocks Elsa	
	bench in order to	park bench	tree that Elsa	off, who falls	
	kill Elsa		has climbed	over the steep	
				cliff beside it	

F1-, F2+	Heavy rainfall	The rock starts an	The old man	The tree shakes	Elsa dies
	knocks over a rock	avalanche that	catches hold of	and knocks Elsa	
		sweeps toward the	the tree that Elsa	off, who falls	
		cliff and an old	has climbed in	over the steep	
		man who hates	order to kill her	cliff beside it	
		Elsa	and save himself		
F1-, F2-	Heavy rainfall	The rock starts an	The park bench	The tree shakes	Elsa dies
	knocks over a rock	avalanche that	slides into the	and knocks Elsa	
		sweeps toward the	tree that Elsa	off, who falls	
		cliff and the park	has climbed	over the steep	
		bench		cliff beside it	

Amazon

Condition	F1 action	→ F1 proximal effect	→ F2 action	→ F2 proximal effect	→ Outcome
F1+, F2+	Dr. Jones turns on a high-frequency sound device in order to kill Dr. Pounds	The sound makes Dr. Brady, who has a neurological condition, want to kill who he spoke to last: Dr. Pounds	Dr. Brady drops Dr. Pounds' heart pills in order to kill him	The pills land in a deep pool of water	Dr. Pounds dies
F1+, F2-	Dr. Jones turns on a high-frequency sound device in order to kill Dr. Pounds	The sound shakes the spider web that Dr. Pounds' heart pills have fallen into	The spider web disintegrates and drops Dr. Pounds' heart pills	The pills land in a deep pool of water	Dr. Pounds dies
F1-, F2+	A strong gust of wind snaps a tree branch	The branch snapping shakes the tree that Dr. Brady, who wants Pounds' job, is holding onto	Dr. Brady drops Dr. Pounds' heart pills in order to kill him	The pills land in a deep pool of water	Dr. Pounds dies
F1-, F2-	A strong gust of wind snaps a tree branch	The branch snapping shakes the spider web that Dr. Pounds' heart pills have fallen into	The spider web disintegrates and drops Dr. Pounds' heart pills	The pills land in a deep pool of water	Dr. Pounds dies

Hospital

Condition	F1 action	→ F1 proximal	→ F2 action	→ F2 proximal	→ Outcome
		effect		effect	
F1+, F2+	Anita spills a chemical in order to kill Claudia	The chemical makes people who smell it homicidal, and Maria smells it	Maria unplugs Claudia's life support machine in order to kill her	The life support machine shuts off	Claudia dies
F1+, F2-	Anita spills a chemical in order to kill Claudia	The chemical makes robots' legs malfunction	Robot 'Six' accidentally trips over the	The life support machine shuts off	Claudia dies

			power cord of Claudia's life support machine		
F1-, F2+	Robot 'NC71' accidentally leaves its mop behind, which makes a puddle on the floor	Maria, who hates Claudia, has to unplug a power cord in order to walk around the puddle	Maria unplugs Claudia's life support machine in order to kill her	The life support machine shuts off	Claudia dies
F1-, F2-	Robot 'NC71' accidentally leaves its mop behind, which makes a puddle on the floor	The puddle causes robot 'Six' to slip	'Six' accidentally trips over the power cord of Claudia's life support machine	The life support machine shuts off	Claudia dies

Factory

Condition	F1 action	→ F1 proximal	→ F2 action	→ F2 proximal	→ Outcome
		effect		effect	
F1+, F2+	Dean hits the	Extremely high	Sal drops the	The hammer	Abner dies
	wrong thermostat	temperatures make	hammer he's	falls onto a	
	button, setting it	Sal, who's taking	been using in	barrel of ethyl	
	extremely high, in	a specific	order to kill	ether, which	
	order to kill Abner	medication,	Abner	explodes next to	
		extremely violent		Abner	
F1+, F2-	Dean hits the	Extremely high	Robot 'C64'	The hammer	Abner dies
	wrong thermostat	temperatures make	accidentally	falls onto a	
	button, setting it	robot hands	drops the	barrel of ethyl	
	extremely high, in	malfunction, and	hammer it's been	ether, which	
	order to kill Abner	drop whatever	using	explodes next to	
		they're holding		Abner	
F1-, F2+	Robot 'Kaypro'	The extremely	Sal drops the	The hammer	Abner dies
	accidentally hits	high temperature	hammer he's	falls onto a	
	the wrong	puts Sal, who	been using in	barrel of ethyl	
	thermostat button,	hates Abner and	order to kill	ether, which	
	setting it extremely	wants him dead,	Abner	explodes next to	
	high	over the edge		Abner	
F1-, F2-	Robot 'Kaypro'	Extremely high	Robot 'C64'	The hammer	Abner dies
	accidentally hits	temperatures make	accidentally	falls onto a	
	the wrong	robot hands	drops the	barrel of ethyl	
	thermostat button,	malfunction, and	hammer it's been	ether, which	
	setting it extremely	drop whatever	using	explodes next to	
	high	they're holding		Abner	

Stable

Condition	F1 action	→ F1 proximal	→ F2 action	→ F2 proximal	→ Outcome
		effect		effect	
F1+, F2+	Suzy activates a	The signal causes	Laura shoves	The collision	Margot dies
	subliminal audio	Laura to become	Margot while	knocks Margot	
	signal in order to	enraged at the first	sprinting out the	into a pitchfork	

	kill Margot	thing she sees: Margot	door in order to kill her	lying against the doorframe	
F1+, F2-	Suzy activates a subliminal audio signal in order to kill Margot	The signal causes a horse, 'Landslide', to become afraid of the first thing she sees: Margot	Landslide accidentally shoves Margot while sprinting out the door in fear	The collision knocks Margot into a pitchfork lying against the doorframe	Margot dies
F1-, F2+	A horse, 'Alchemy', accidentally knocks over a lantern	The lantern falls into a bale of hay and starts a fire, which spreads toward Laura, who hates Margot	Laura shoves Margot while sprinting out the door in order to kill her and save herself	The collision knocks Margot into a pitchfork lying against the doorframe	Margot dies
F1-, F2-	A horse, 'Alchemy', accidentally knocks over a lantern	The lantern falls into a bale of hay and starts a fire, which spreads toward another horse, 'Landslide'	Landslide accidentally shoves Margot while sprinting out the door in fear	The collision knocks Margot into a pitchfork lying against the doorframe	Margot dies

Manhattan

Condition	F1 action	→ F1 proximal effect	→ F2 action	→ F2 proximal effect	→ Outcome
F1+, F2+	A tourist drops a drug-laden pill into a cup of coffee in order to kill Cedric	The drug makes the businessman who drinks it want to kill someone	The businessman jumps up and knocks a table over in order to kill Cedric	The table knocks Cedric backward onto his head	Cedric dies
F1+, F2-	A tourist drops a drug-laden pill into a cup of coffee in order to kill Cedric	The drug makes the dog who drinks it automatically jump up	The dog's jumping up accidentally knocks a table over	The table knocks Cedric backward onto his head	Cedric dies
F1-, F2+	A pigeon accidentally drops a nut into a cup of coffee	The coffee splashes onto a businessman, who'd rather kill someone than be scalded	The businessman jumps up and knocks a table over in order to kill Cedric	The table knocks Cedric backward onto his head	Cedric dies
F1-, F2-	A pigeon accidentally drops a nut into a cup of coffee	The coffee splashes onto a dog, whose reflexes make him automatically jump up	The dog's jumping up accidentally knocks a table over	The table knocks Cedric backward onto his head	Cedric dies

Experiment		Event 1	Event 2	Event 3	Event 4	Event 5	
		F1 action	F1 effect F2 action F2 effect		Outcome		
Exp. 2	F1	-	Non-agent Non-agent	t foregoon motintand	ad		
		+	Accidental	t foreseen, not intend	eu		
	F2	-			Non-agent	Not foreseen, n	ot intended

Vignette	F1 action	→ F1 proximal effect	→ F2 action	→ F2 proximal effect	→ Outcome
Cliff	[A teenager accidentally/Heavy rainfall] knocks over a rock	The rock starts an avalanche that sweeps toward the cliff and an [old man/park bench]	The [old man accidentally/park bench] catches on the tree that Elsa has climbed	The tree shakes and knocks Elsa off, who falls over the steep cliff beside it	Elsa dies
Amazon	[Dr. Jones accidentally/A strong gust of wind] snaps a tree branch	The snapping shakes the tree that [Dr. Brady/ the spider web that caught Dr. Pounds' heart pills] is in	[Dr. Brady accidentally/The spider web] drops Dr. Pounds' heart pills	The pills land in a deep pool of water	Dr. Pounds dies
Hospital	[Anita/Robot 'NC71'] accidentally leaves some water on the floor	The water makes a puddle	[Maria/Robot 'Six'] slips, accidentally unplugging Claudia's life support	The life support machine shuts off	Claudia dies
Factory	[Dean/Robot 'Kaypro'] accidentally hits the wrong thermostat button, setting it extremely high	The extremely high temperature makes [Sal/robot 'C64'] lose [his/its] grip on the hammer [he/it]'s using	[Sal/C64] accidentally drops the hammer	The hammer falls onto a barrel of ethyl ether, which explodes next to Abner	Abner dies
Stable	[Suzy/A horse, 'Alchemy'] accidentally knocks over a lantern	The lantern falls into a bale of hay and starts a fire, which spreads toward [Laura/a[nother] horse, 'Landslide]	[Laura/ Landslide] accidentally runs into Margot while sprinting out the door	The collision knocks Margot into a pitchfork lying against the doorframe	Margot dies
Manhattan	A [tourist/pigeon] accidentally drops a nut into a cup of coffee	The coffee splashes onto a [businessman/ dog] and scalds him	The [businessman/ dog] accidentally jumps up and knocks a table over	The table knocks Cedric backward onto his head	Cedric dies

Experiment			Event 1	Event 2	Event 3	Event 4	Event 5		
			F1 action	F1 effect	F2 action	F2 effect	Outcome		
Exp. 3	F1	-	Accidental	t foreseen met intend	1. 1				
		+	Intentional	t foreseen, not intende	eu				
	F2	-			Accidental	Not foreseen, n	ot intended		

Vignette	F1 action	→ F1 proximal effect	→ F2 action	→ F2 proximal effect	→ Outcome
Cliff	A teenager [intentionally/accid entally] knocks over a rock while playing a game	The rock happens to start an avalanche that sweeps toward the cliff and an old man	The old man [intentionally/acc identally] catches on the tree that Elsa has climbed [in order not to fall]	The tree happens to shake and knocks Elsa off, who falls over the steep cliff beside it	Elsa dies
Amazon	Dr. Jones [intentionally/ accidentally] snaps a tree branch that he sees a snake on	The snapping happens to shake the tree that Dr. Brady is in	Dr. Brady [intentionally/ accidentally] drops Dr. Pounds' heart pills [in order to hold onto the tree and not fall]	The pills happen to land in a deep pool of water	Dr. Pounds dies
Hospital	Anita [intentionally/ accidentally] leaves some water on the floor because she's late for a date	The water happens to make a puddle	Maria [intentionally/ accidentally] unplugs Claudia's life support [so she can walk around/when she slips in] the puddle	The life support machine happens to shut off	Claudia dies
Factory	Dean [intentionally/ accidentally] hits the wrong thermostat button, setting it extremely high because [he wants it warmer/ his hand is shivering]	The extremely high temperature happens to make [Sal want to stop work/Sal's hands sweat]	Sal [intentionally/ accidentally] drops the hammer [in order to stop work]	The hammer happens to fall onto a barrel of ethyl ether, which explodes next to Abner	Abner dies
Stable	Suzy [intentionally/ accidentally] moves over a lantern that's in the way	The lantern happens to tip over into a bale of hay and starts a fire, which spreads toward Laura	Laura [intentionally/ accidentally] shoves Margot while sprinting out the door	The collision happens to knock Margot into a pitchfork lying against the doorframe	Margot dies

Manhattan	A tourist	The bad nut	The businessman	The table	Cedric dies
	[intentionally/	happens to land in	[intentionally/	happens to	
	accidentally] drops	a cup of coffee,	accidentally]	knock Cedric	
	a bad nut	which splashes	jumps up and	backward onto	
			knocks a table	his head	
			over [to avoid		
			being scalded/		
			because he is		
			scalded]		

Exp. 4

Evnovim	Experiment		Event 1		Event 2	Event 3	Event 4	Event 5	
Experiment			F1 action		F1 effect	F2 action	F2 effect	Outcome	
		+				Intentional			
Exp. 4	F1	-	Intentional	No	t foreseen, not intende	ed	Net females and intended		
		+	Intentional	For	Foreseen, not intended		— Not foreseen, not intended		
	F2	-				Intentional	Not foreseen, n	ot intended	
		+				Intentional	Foreseen, not in	ntended	

Conditions	F1 action	→ F1 proximal	→ F2 action	→ F2 proximal	→ Outcome
in brackets		effect		effect	
Cliff	A teenager knocks over a rock while playing a game [and knows/but doesn't know] this will start an avalanche and cause an old man to catch on a tree	The rock starts an avalanche that sweeps toward the cliff and the old man	The old man catches on the tree that Elsa has climbed in order not to fall [and knows/but doesn't know] this will shake the tree and cause Elsa to die	The tree shakes and knocks Elsa off, who falls over the steep cliff beside it	Elsa dies
Amazon	Dr. Jones snaps a tree branch that he sees a snake on [and knows/but doesn't know] this will shake the tree and cause Dr. Brady to drop the pills	The snapping shakes the tree that Dr. Brady is in	Dr. Brady drops Dr. Pounds' heart pills in order to hold onto the tree and not fall [and knows/but doesn't know] they'll land in the pool and cause Dr. Pounds to die	The pills land in a deep pool of water	Dr. Pounds dies
Hospital	Anita leaves some water on the floor because she's late for a date [and	The water makes a puddle	Maria unplugs a cord so she can walk around the puddle [and	The life support machine shuts off	Claudia dies

	knows/but doesn't know] this will make a puddle and cause Claudia to unplug a cord		knows/but doesn't know] this will shut off the life support and cause Claudia to die		
Factory	Dean hits the wrong thermostat button, setting it extremely high, because he wants it warmer [and knows/but doesn't know] this will make Sal want to stop work and drop the hammer	The extremely high temperature makes Sal want to stop work	Sal drops the hammer [and knows/but doesn't know] it will make the barrel explode and cause Abner to die	The hammer falls onto a barrel of ethyl ether, which explodes next to Abner	Abner dies
Stable	Suzy moves over a lantern that's in the way [and knows/but doesn't know] this will start a fire and cause Laura to shove Margot	The lantern tips into a bale of hay and starts a fire, which spreads toward Laura	Laura shoves Margot while sprinting out the door [and knows/but doesn't know] this will knock her into a pitchfork and cause her to die	The collision knocks Margot into a pitchfork lying against the doorframe	Margot dies
Manhattan	A tourist drops a bad nut [and knows/but doesn't know] it will splash in a cup of coffee and make the businessman jump up	The coffee splashes	The businessman jumps up to avoid being scalded [and knows/but doesn't know] this will knock a table over and cause Cedric to die	The table knocks Cedric backward onto his head	Cedric dies

Exp. 5

Experiment		Event 1		Event 2	Event 3	Event 4	Event 5	
Experiment			F1 action		F1 effect	F2 action	F2 effect	Outcome
Exp. 5	F1	-	Intentional	For	reseen, not intended		Not former and intended	
		+	intentional	For	oreseen, intended		— Not foreseen, not intended	
	F2	-		Foreseen, not inter			ntended	
		+				Intentional	Foreseen, intended	

-	Conditions	F1 action	1	F1	proximal	→ F2 action	→ F2	proximal	→ Outcome

in brackets		effect		effect	
Cliff	A teenager knocks	The rock starts an	The old man	The tree shakes	Elsa dies
	over a rock [in	avalanche that	catches on the	and knocks Elsa	
	order to start an	sweeps toward the	tree that Elsa has	off, who falls	
	avalanche that will	cliff and the old	climbed [in order	over the steep	
	frighten an old	man	to knock her off,	cliff beside it	
	man/as part of a		because he hates		
	game he's playing]		her/to find a spot		
			from which he		
			won't fall over		
A	D. I	Tl	the cliff]	TP1 111 1 1 1	Dr. Pounds
Amazon	Dr. Jones	The snapping shakes the tree	Dr. Brady drops Dr. Pounds'	The pills land in	dies
	snaps a tree branch [in order to			a deep pool of water	ules
	frighten Dr.	that Dr. Brady is in	heart pills [because he	water	
	Brady/that has a	111	wants Pounds'		
	snake on it]		job for		
	shake on it		himself/so that		
			he can hang onto		
			the tree and not		
			fall off]		
Hospital	Anita leaves her	The mop makes a	Maria unplugs	The life support	Claudia dies
1	mop behind [in	puddle on the	Claudia's life	machine shuts	
	order to make a	floor	support machine	off	
	puddle that will get		because [she's		
	in Maria's		come to hate her		
	way/because she is		and wants her		
	late for a date]		dead/it's the only		
			way to get		
			around the		
F4	D 1.4. 41 .	Th 1	puddle]	T1 1	A 1 1
Factory	Dean hits the	The extremely	Sal drops the hammer in order	The hammer falls onto a	Abner dies
	wrong thermostat	high temperature makes Sal want to	to [kill Abner/		
	button, setting it extremely high,	[kill Abner, who	stop work]	barrel of ethyl ether, which	
	because [he wants	he already wants	stop workj	explodes next to	
	to annoy Sal/he	dead/stop work]		Abner	
	wants it warmer]	acual stop work]		1101101	
Stable	Suzy moves over a	The lantern tips	Laura shoves	The collision	Margot dies
	lantern [to scare	over into a bale of	Margot while	knocks Margot	<i>J</i>
	Laura/so that it	hay and starts a	sprinting out the	into a pitchfork	
	won't be in the	fire, which	door so that	lying against the	
	way]	spreads toward	[Margot will be	doorframe	
		Laura	killed instead of		
			her/she can save		
			herself from the		
		TTI 00	fire]	m1 1 .1	G 1: "
Manhattan	A tourist drops a	The coffee	The businessman	The table	Cedric dies
	nut [in order to	splashes	jumps up	knocks Cedric	
	fluster a		[because he'd	backward onto	
	businessman/that		rather hurt Cedric than be	his head	
	was bad]		scalded/to avoid		
			being scalded],		
			which knocks a		
			table over		
	l		ומטוכ טעבו	l	

Exp. 6

E	4		Event 1	Event 2	Event 3	Event 4	Event 5
Experiment			F1 action	F1 effect	F2 action	F2 effect	Outcome
Exp. 6	F1	-				Foreseen, not intended	
		+	Intentional Fo	reseen, intended		Foreseen, intended by altering environment	
	F2	-			Intentional	Foreseen, not in	ntended
		+			Intentional	Foreseen, inten	ded

Conditions	F1 action	→ F1 proximal	→ F2 action	→ F2 proximal	→ Outcome
in brackets		effect		effect	
Cliff	A teenager knocks over a rock as part of a plan to [make the old man kill Elsa/frighten an old man] because the teenager took an instant dislike to	The rock starts an avalanche that sweeps toward the cliff and the old man	The old man catches on the tree that Elsa has climbed [in order to knock her off/to find a spot from which he won't fall over	The tree shakes and knocks Elsa off, who falls over the steep cliff beside it	Elsa dies
	[Elsa/the old man]		the cliff		
Amazon	Dr. Jones snaps a tree branch as part of a plan to [make Dr. Brady kill Dr. Pounds/ frighten Dr. Brady], because Dr. Jones doesn't like [Dr. Pounds/ Dr. Brady]	The snapping shakes the tree that Dr. Brady is in	Dr. Brady drops Dr. Pounds' heart pills [because he wants Pounds' job for himself/so that he can hang onto the tree and not fall off]	The pills land in a deep pool of water	Dr. Pounds dies
Hospital	Anita leaves her mop behind as part of a plan to [create conditions that will lead Maria to kill Claudia/annoy Maria by putting an obstacle in her path] since Anita despises [Claudia/Maria]	The mop makes a puddle on the floor	Maria unplugs Claudia's life support because [she's come to hate her and wants her dead/ it's the only way to get around the puddle]	The life support machine shuts off	Claudia dies
Factory	Dean hits the wrong thermostat button as part of a plan to [make Sal kill Abner/annoy	The extremely high temperature makes Sal want to [kill Abner, who he already wants	Sal drops the hammer in order to [kill Abner/ stop work]	The hammer falls onto a barrel of ethyl ether, which explodes next to	Abner dies

	Sal], because Dean has never liked [Abner/Sal]	dead/stop work]		Abner	
Stable	Suzy moves over a lantern because [doing so will lead Laura to kill Margot/she wants to scare Laura] and Suzy has always hated [Margot/ Laura]	The lantern tips over into a bale of hay and starts a fire, which spreads toward Laura	Laura shoves Margot while sprinting out the door so that [Margot will be killed instead of her/she can save herself from the fire]	The collision knocks Margot into a pitchfork lying against the doorframe	Margot dies
Manhattan	A tourist drops a nut as part of plan to [make the businessman kill Cedric/fluster the businessman sitting far below], since he doesn't like New Yorkers	The coffee splashes	The businessman jumps up [because he'd rather hurt Cedric than be scalded/in order to avoid being scalded], which knocks a table over	The table knocks Cedric backward onto his head	Cedric dies

Exp. 7

Experiment			Event 1	Event 2	Event 3	Event 4	Event 5
			F1 action	F1 effect	F2 action	F2 effect	Outcome
Exp. 7 F1 -			Intentional Fo	reseen, intended	Foreseen, intendaltering environ		-
+		+	intentional Po	reseen, intended	Foreseen, intended bypassing		ded by
F2 - +			Intentional	Foreseen, not in	ntended		
				Intentional Foreseen, intended		ded	

Cliff

Condition	F1 action	→ F1 proximal	→ F2 action	→ F2 proximal	→ Outcome
		effect		effect	
F1+, F2+	A teenager shoots	The drug makes	The old man	The tree shakes	Elsa dies
	a drug-laden dart	the old man	catches hold of	and knocks Elsa	
	into an old man in	intensely hate the	the tree that Elsa	off, who falls	
	order to kill Elsa	first thing he sees:	has climbed in	over the steep	
		Elsa	order to kill her	cliff beside it	
F1+, F2-	A teenager shoots	The drug makes	The old man	The tree shakes	Elsa dies
	a drug-laden dart	the old man	catches hold of	and knocks Elsa	
	into an old man in	intensely fear the	the tree that Elsa	off, who falls	
	order to kill Elsa	first thing he sees:	has climbed in	over the steep	
		the ground	order to get off	cliff beside it	

			the ground		
F1-, F2+	A teenager knocks over a rock in order to kill Elsa	The rock starts an avalanche that sweeps toward the cliff and an old man who hates Elsa	The old man catches hold of the tree that Elsa has climbed in order to kill her and save himself	The tree shakes and knocks Elsa off, who falls over the steep cliff beside it	Elsa dies
F1-, F2-	A teenager knocks over a rock in order to kill Elsa	The rock starts an avalanche that sweeps toward the cliff and an old man	The old man catches on the tree that Elsa has climbed in order to find a spot from which he won't fall over the cliff	The tree shakes and knocks Elsa off, who falls over the steep cliff beside it	Elsa dies

Amazon

Condition	F1 action	→ F1 proximal	→ F2 action	→ F2 proximal	→ Outcome
		effect		effect	
F1+, F2+	Dr. Jones turns on	The sound makes	Dr. Brady drops	The pills land in	Dr. Pounds
	a high-frequency	Dr. Brady, who has	Dr. Pounds'	a deep pool of	dies
	sound device in	a rare neurological	heart pills in	water	
	order to kill Dr.	condition, want to	order to kill him		
	Pounds	kill who he spoke			
		to last: Dr. Pounds			
F1+, F2-	Dr. Jones turns on	The sound makes	Dr. Brady drops	The pills land in	Dr. Pounds
	a high-frequency	Dr. Brady, who has	Dr. Pounds'	a deep pool of	dies
	sound device in	a rare neurological	heart pills so	water	
	order to kill Dr.	condition, want to	that he can hang		
	Pounds	let go of whatever	onto the tree and		
		he's holding	not fall off		
F1-, F2+	Dr. Jones snaps a	The branch	Dr. Brady drops	The pills land in	Dr. Pounds
	tree branch in	snapping shakes	Dr. Pounds'	a deep pool of	dies
	order to kill Dr.	the tree that Dr.	heart pills in	water	
	Pounds	Brady, who wants	order to kill him		
		Pounds' job, is			
		holding onto			
F1-, F2-	Dr. Jones snaps a	The snapping	Dr. Brady drops	The pills land in	Dr. Pounds
	tree branch in	shakes the tree that	Dr. Pounds'	a deep pool of	dies
	order to kill Dr.	Dr. Brady is in	heart pills so	water	
	Pounds		that he can hang		
			onto the tree and		
			not fall off		

Hospital

Condition	F1 action	→ F1 proximal	→ F2 action	→ F2 proximal	→ Outcome
		effect		effect	
F1+, F2+	Anita spills a	The chemical	Maria unplugs	The life support	Claudia dies
	chemical in order	makes people who	the life support	machine shuts	
	to kill Claudia	smell it homicidal,	power cord in	off	

		and Maria smells it	order to kill Claudia		
F1+, F2-	Anita spills a chemical in order to kill Claudia	The chemical makes people who smell it nauseated, and Maria smells it and has to throw up	Maria unplugs the life support power cord because it's blocking her way to the sink	The life support machine shuts off	Claudia dies
F1-, F2+	Anita leaves her mop behind in order to kill Claudia	Maria, who hates Claudia, has to unplug some power cord in order to walk around the puddle	Maria unplugs the life support power cord in order to kill Claudia	The life support machine shuts off	Claudia dies
F1-, F2-	Anita leaves her mop behind in order to kill Claudia	The mop makes a puddle on the floor	Maria unplugs the life support power cord because it's the only way around the puddle	The life support machine shuts off	Claudia dies

Factory

Condition	F1 action	→ F1 proximal effect	→ F2 action	→ F2 proximal effect	→ Outcome
F1+, F2+	Dean hits the wrong thermostat button, setting it extremely high, in order to kill Abner	Extremely high temperatures make Sal, who's taking a specific medication, extremely violent	Sal drops the hammer he's been using in order to kill Abner	The hammer falls onto a barrel of ethyl ether, which explodes next to Abner	Abner dies
F1+, F2-	Dean hits the wrong thermostat button, setting it extremely high, in order to kill Abner	Extremely high temperatures make Sal, who's taking a specific medication, extremely sleepy	Sal drops the hammer he's been using so that he can stop work and sleep	The hammer falls onto a barrel of ethyl ether, which explodes next to Abner	Abner dies
F1-, F2+	Dean hits the wrong thermostat button, setting it extremely high, in order to kill Abner	The extremely high temperature puts Sal, who hates Abner and wants him dead, over the edge	Sal drops the hammer he's been using in order to kill Abner	The hammer falls onto a barrel of ethyl ether, which explodes next to Abner	Abner dies
F1-, F2-	Dean hits the wrong thermostat button, setting it extremely high, in order to kill Abner	The extremely high temperature puts Sal, who wants to stop work, over the edge	Sal drops the hammer he's been using so that he can stop work	The hammer falls onto a barrel of ethyl ether, which explodes next to Abner	Abner dies

Stable

Condition	F1 action	→ F1 proximal effect	→ F2 action	→ F2 proximal effect	→ Outcome
F1+, F2+	Suzy activates a subliminal audio signal in order to kill Margot	The signal causes Laura to become enraged at the first thing she sees: Margot	Laura shoves Margot while sprinting out the door in order to kill her	The collision knocks Margot into a pitchfork lying against the doorframe	Margot dies
F1+, F2-	Suzy activates a subliminal audio signal in order to kill Margot	The signal causes Laura to become frightened of the first thing she sees: her horse	Laura shoves Margot while sprinting out the door in fear	The collision knocks Margot into a pitchfork lying against the doorframe	Margot dies
F1-, F2+	Suzy moves over a lantern in order to kill Margot	The lantern falls into a bale of hay and starts a fire, which spreads toward Laura, who hates Margot	Laura shoves Margot while sprinting out the door in order to kill her and save herself	The collision knocks Margot into a pitchfork lying against the doorframe	Margot dies
F1-, F2-	Suzy moves over a lantern in order to kill Margot	The lantern falls into a bale of hay and starts a fire, which spreads toward Laura	Laura shoves Margot while sprinting out the door in order to save herself	The collision knocks Margot into a pitchfork lying against the doorframe	Margot dies

Manhattan

Condition	F1 action	→ F1 proximal	→ F2 action	→ F2 proximal	→ Outcome
		effect		effect	
F1+, F2+	A tourist drops a	The drug makes	The businessman	The table	Cedric dies
	drug-laden pill into	the businessman	jumps up and	knocks Cedric	
	a cup of coffee in	who drinks it want	knocks a table	backward onto	
	order to kill Cedric	to kill someone	over in order to	his head	
			kill Cedric		
F1+, F2-	A tourist drops a	The drug makes	The businessman	The table	Cedric dies
	drug-laden pill into	the businessman	jumps up and	knocks Cedric	
	a cup of coffee in	who drinks it	knocks a table	backward onto	
	order to kill Cedric	desperately want	over	his head	
		to jump up			
F1-, F2+	A tourist drops a	The coffee	The businessman	The table	Cedric dies
	nut into a cup of	splashes onto a	jumps up and	knocks Cedric	
	coffee in order to	businessman,	knocks a table	backward onto	
	kill Cedric	who'd rather kill	over in order to	his head	
		someone than be	kill Cedric		
E1 E2		scalded	771 1 ·	771 1.1	0.1:1:
F1-, F2-	A tourist drops a	The coffee	The businessman	The table	Cedric dies
	nut into a cup of	splashes onto a	jumps up and	knocks Cedric	
	coffee in order to	businessman, who	knocks a table	backward onto	
	kill Cedric	has to jump up in	over	his head	
		order to avoid			
		being scalded			