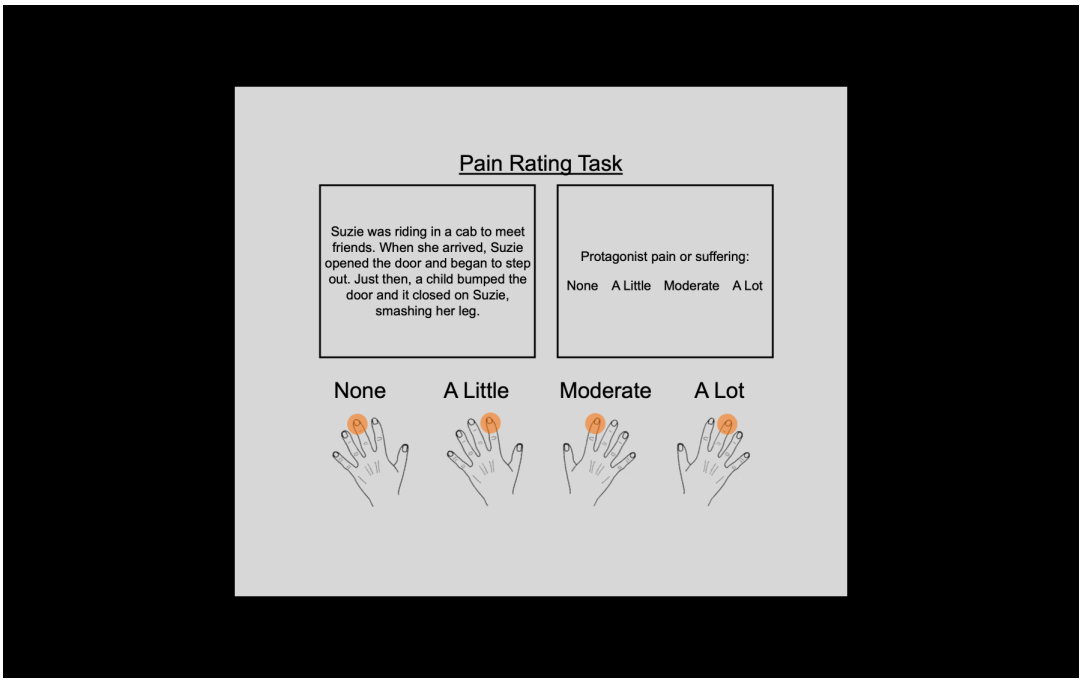
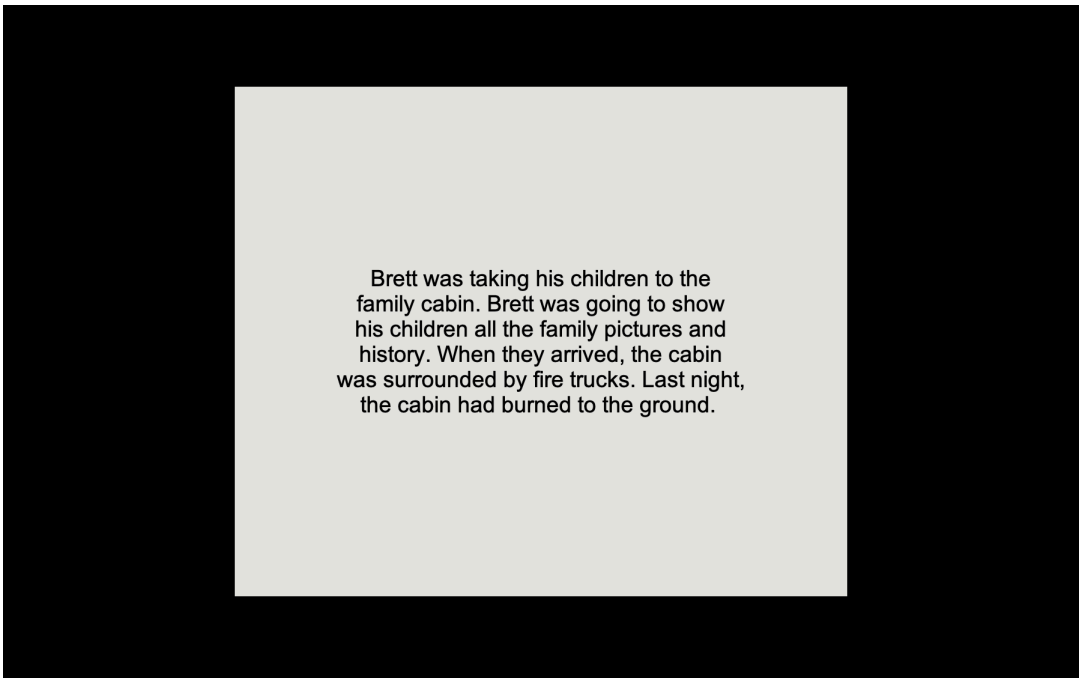
Task	PAIN (v211124)
Duration (s)	318 (plus 10s of reference scans for multi echo, as 'Stay very still' screen shown)
Volume #	318 (12 T1 stabilization, 306 usable, all 318 images saved)
TR (s)	1.00
Stimuli	Stories featuring emotionally or physically painful experiences followed by participant ratings of each protagonist's pain or suffering
Stimuli manipulations	Text is center justified and rating choices (None, A Little, Moderate, A Lot) are shown below the rating statement.
Task requirements	Participants are instructed to read a 4-6 line passage describing something painful and then to rate how much pain or suffering the protagonist experienced: None (left middle finger), A Little (left index finger), Moderate (right pointer finger) or A Lot (left middle finger).
# of Runs	4
Run creation	Adapted from Pain_set_maker_bench.m (Braga, Hutchison). No story is repeated across all runs. Each of 4 runs contains 5 Emotionally Painful, and 5 Physically Painful stories.
Possibility of more sets	Only by generating more stimuli. 8 stimuli currently unused in the testing sessions: 2 are used in the task run-through booklet (to explain each task prior to scans) and 4 as practice stimuli.
Design	E-S = Emotionally Painful Story, P-S = Physically Painful story; Q = rating question, and Q numbers refer to the unique S+Q number from the 48-story stimulus set, also shown in the "Detailed Orders" below as "Q_Num". Each story is presented for 10s and rating question for 5s. **PAIN1** [12s (+)] : 6s (+), [15s (P-S+Q38), 15s (+)], [15s (E-S+Q12), 15s (+)], [15s (P-S+Q47), 15s (+)], [15s (E-S+Q20), 15s (+)], [15s (E-S+Q11), 15s (+)], [15s (P-S+Q39), 15s (+)], [15s (P-S+Q46), 15s (+)], [15s (E-S+Q8), 15s (+)], [15s (P-S+Q33), 15s (+)], [15s (E-S+Q13), 15s (+)] **PAIN2** [12s (+)] : 6s (+), [15s (E-S+Q18), 15s (+)], [15s (P-S+Q36), 15s (+)], [15s (E-S+Q44, 15s (+)], [15s (P-S+Q32), 15s (+)], [15s (P-S+Q27), 15s (+)], [15s (E-S+Q14), 15s (+)], [15s (E-S+Q2), 15s (+)], [15s (P-S+Q26), 15s (+)], [15s (E-S+Q3), 15s (+)], [15s (P-S+Q43), 15s (+)] **PAIN3** [12s (+)] : 6s (+), [15s (P-S+Q31), 15s (+)], [15s (E-S+Q17), 15s (+)], [15s (E-S+Q23, 15s (+)], [15s (P-S+Q29), 15s (+)], [15s (E-S+Q5), 15s (+)], [15s (P-S+Q48), 15s (+)], [15s (E-S+Q24), 15s (+)], [15s (P-S+Q44), 15s (+)], [15s (P-S+Q25), 15s (+)], [15s (E-S+Q15), 15s (+)] **PAIN3** [12s (+)] : 6s (+), [15s (E-S+Q1), 15s (+)], [15s (P-S+Q37), 15s (+)], [15s (P-S+Q41, 15s (+)], [15s (E-S+Q9), 15s (+)], [15s (P-S+Q30), 15s (+)], [15s (E-S+Q7), 15s (+)], [15s (P-S+Q34), 15s (+)], [15s (E-S+Q16), 15s (+)], [15s (E-S+Q19), 15s (+)], [15s (P-S+Q40), 15s (+)]

	<table><tr><th></th><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>7</th><th>8</th><th>9</th><th>10</th></tr><tr><td>PAIN1</td><td>P</td><td>E</td><td>P</td><td>E</td><td>E</td><td>P</td><td>P</td><td>E</td><td>P</td><td>E</td></tr><tr><td>PAIN2</td><td>E</td><td>P</td><td>E</td><td>P</td><td>P</td><td>E</td><td>E</td><td>P</td><td>E</td><td>P</td></tr><tr><td>PAIN3</td><td>P</td><td>E</td><td>E</td><td>P</td><td>E</td><td>P</td><td>E</td><td>P</td><td>P</td><td>E</td></tr><tr><td>PAIN4</td><td>E</td><td>P</td><td>P</td><td>E</td><td>P</td><td>E</td><td>P</td><td>E</td><td>E</td><td>P</td></tr></table>
Trials/Block/Run	5 stories per condition per run x 4 runs = 40 total stories.
Trial timing	10s story, 5s question/rating, followed by 15s fixation crosshair ISI = 30s ITI
Goal	To probe DN-B and localize regions involved mentalizing.
Other Notes	The Emotional/Physical Pain Stories task was created/validated by the SaxeLab - see Jacoby, Bruneau, Koster-Hale & Saxe (2016) *Neuroimage*; stimuli also from Bruneau et al. (2012) *Neuropsychologia*. Used with permission.

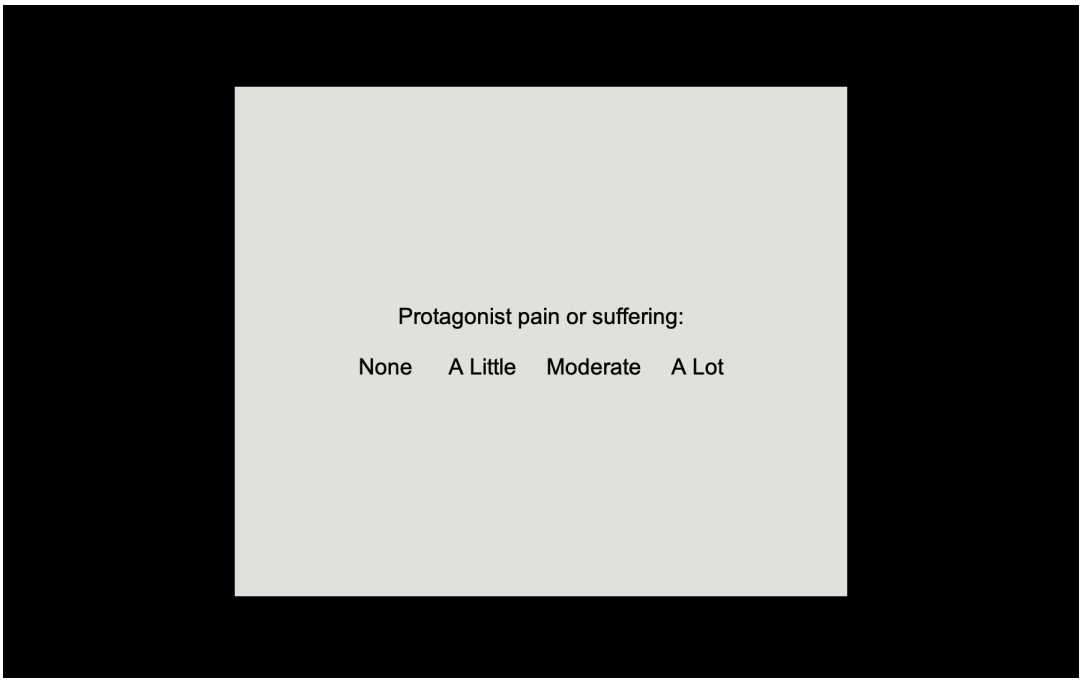
Instruction Screen:



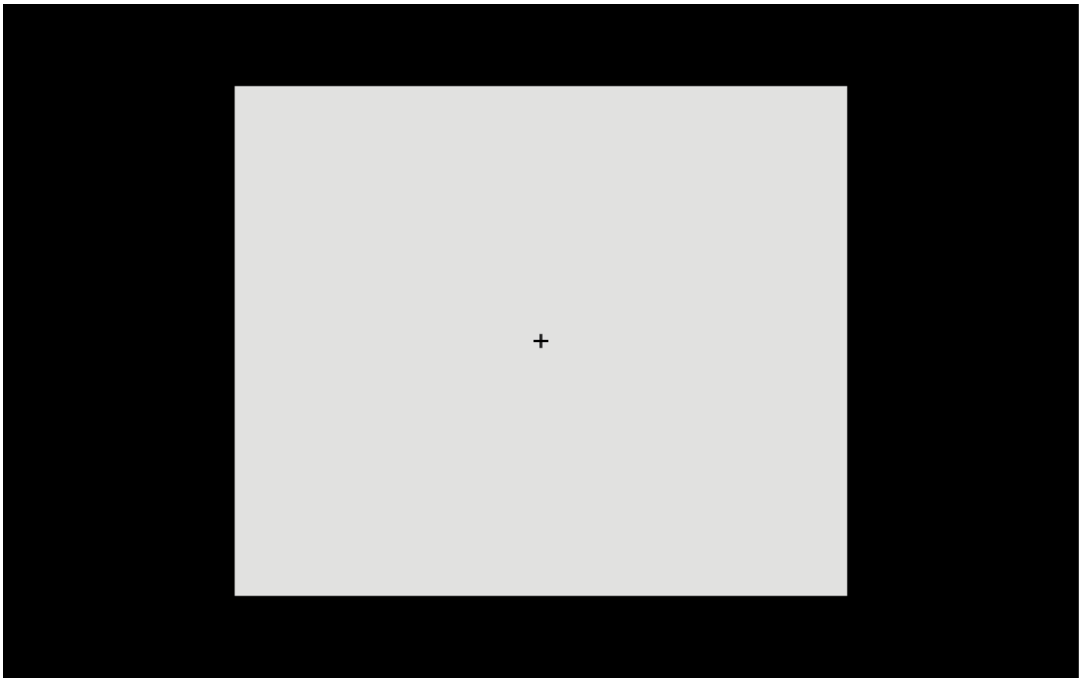
Example Story:



Example Question:



Fixation Screen:



Detailed Orders Below:

Time_Start(s) indicates the start of a story after removal of the 12s for T1 stabilization, starting at 0. Q_Num refers to the unique S+Q number from the 48-story stimulus set.

PAIN1

Time_Start(s)	Q_Num	Condition	Story_Text
6	38	Physical	Annie was in a park with her mother when a bee landed on her hand. Annie could feel the tickle of the bee legs walking on her. Then the bee stung Annie, injecting its poison into her hand. Annie shook her hand and ran to her mom.
36	12	Emotional	Diane has a son with autism. Her son is often very uncomfortable with human contact and prefers to play on his computer. Since her husband left, all Diane has is her son. Diane went to her son to hug him and he screamed and pushed her away.
66	47	Physical	Sonya was playing tag at school with her friends. While running around a corner, Sonya slipped on some gravel and fell. Her knee was scraped and had gravel imbedded in it. Sonya grabbed her bloody knee with both hands and started crying.
96	20	Emotional	Chad plays on a soccer team. After one of their big games Chad asks his teammates if they want to go get some ice cream. All of his friends tell him that they are going out with their fathers. Chad's father forgot about the game and did not show up.
126	11	Emotional	Ron and his wife recently became foster parents to a 10 year old girl. Ron promises her that he will be at a concert that she is playing in. On the way to the concert Ron is caught in traffic. When he arrives the concert is already over.
156	39	Physical	Roy was at the beach with his family. After a day of playing catch and running in the sand, Roy started walking back to the car. Buried in the sand was a piece of broken glass. Roy stepped on the glass and it sliced the bottom of his foot.
186	46	Physical	Eric was hiking in the mountains with his girlfriend. At a stream crossing Eric watched his girlfriend hop across the rocks and then began to follow. He slipped on the first rock and his shin came down hard on it, ripping off a swath of skin.
216	8	Emotional	Rudy had worked hard to get the job he has now. He can finally take care of his son and has almost saved enough to give him the gifts he wants for his birthday. Today he was called in to the office and his boss told him that he was fired.
246	33	Physical	Lois was skiing for the first time. She was learning how to go down the easy slopes and was trying to keep her legs together. On her first run down a harder slope her legs came apart and one knee twisted around. Lois cried out.
276	13	Emotional	Shelley recently applied to Oxford and has dreamed of going there all her life. One day a letter came from Oxford and Shelley tore it open. The letter was a rejection. Shelley ran into her room and began sobbing.

PAIN2

Time_Start(s)	Q_Num	Condition	Story_Text
6	18	Emotional	Lara just moved and is trying to make friends at a new school. While Lara is sitting in one of the bathroom stalls, a number of girls come in. The girls begin to talk about how much they dislike Lara and then they leave. Lara sits silently.
36	36	Physical	Diane was changing a lightbulb in her living room. Her roommate held a stool while Diane reached up to unscrew the old bulb. The light had been on all night, though, and it was very hot. When she grabbed the bulb it burned Diane's hand.
66	4	Emotional	Kevin took his son Zack to the doctor for a checkup. The doctor did a series of tests and came back to talk to the father and son. The doctor told them that Zack has a rare form of cancer that they have no cure for. He gives Zack 6 months to live.
96	32	Physical	Brian was at home when a friend called to him from outside. Brian raised the window to talk to his friend. Suddenly the window came down and pinned Brian's fingers underneath the frame. Brian had to free his fingers by pulling them out.
126	27	Physical	Chris was chopping vegetables for dinner. When his friend asked him a question, Chris turned to respond and slipped with the knife. The knife cut a huge slice in his finger that went to the bone.
156	14	Emotional	Mark is an autistic child who was just given his first dog. He loves the dog very much and considers it his best friend. One day Mark's father wakes him up and tells him that the dog ran away. Mark sits on his bed rocking back and forth.
186	2	Emotional	Monica was visiting Anna, who had been her best friend for 60 years. When Monica arrived at her house, Anna's son said that Anna had had a massive stroke and they were not sure if she would survive. Monica sat down on the front porch.
216	26	Physical	Ethan was building a small shed. He picked up the hammer to drive a nail into a board, but missed and hit his thumb, crushing his thumb and ripping off half the thumbnail. Ethan held his thumb as the blood seeped through.
246	3	Emotional	Rose was planning her upcoming wedding. She received a call from her fiance. He told her that he was leaving town and could not go through with the wedding. Rose hung up the phone and dropped the wedding catalogue she was reading.
276	43	Physical	Jay has a pet rabbit that he keeps in a cage. One day he fed the rabbit some carrots and then put the rabbit away. As he was walking past the cage his bare leg caught on a wire that was sticking out. It left a long deep scratch along his thigh.

PAIN3

Time_Start(s)	Q_Num	Condition	Story_Text
6	31	Physical	Angela was putting up posters in her new room. It was early Saturday morning and she was in her pajamas. As Angela stood back, she stepped on a thumb tack that had fallen on the ground. The thumb tack went into her heel and hit the bone.
36	17	Emotional	Katie was giving a piano recital and was waiting her turn. All the children performing walked off the stage to their parents when they finished. Katie's parents died the previous year. When she finished her recital Katie sat looking at her hands.
66	23	Emotional	Cynthia lives with her husband and step-daughter Julia. She loves Julia very much and often tries to help with her homework. One day Julia jumped up from her work and shouted to Cynthia that she hates her. Cynthia sat alone at the table.
96	29	Physical	Bill was walking along a picket fence with his friend. Bill is in kindergarten and was trying to show his friend how fast he could walk. Bill stumbled and fell onto a sharp picket. The picket pierced his leg and Bill was left hanging on the fence.
126	5	Emotional	Karen was pregnant and going in for her first check-up. The doctor ran a number of tests and came back in to talk with her. The doctor told Karen that her baby had a rare disease and had died. Karen pleaded with the doctor to help her.
156	48	Physical	Larry was going to his first day of a new job. The job started very early so Larry was extremely tired. Larry made himself some coffee and took a big drink. The coffee was still boiling hot and Larry felt the soft tissue inside his mouth burn.
186	24	Emotional	Bobby is new to school and joined the volleyball team. Tonight was their first match. At the end of a close game the ball came right to Bobby for an easy play. He missed the ball and they lost the game. His teammates groaned and walked off the court.
216	44	Physical	Cathy was on an island in the South Pacific for her honeymoon. She walked down the beach and into the warm water. As Cathy waded out she stepped on a stone fish which stuck its poisonous stinger into her foot. Cathy yelled and pulled her foot up.
246	25	Physical	Joe was playing soccer with his friends. He slid in to steal the ball away, but his cleat stuck in the grass and he rolled over his ankle, breaking his ankle and tearing the ligaments. His face was flushed as he rolled over.
276	15	Emotional	John was on a hike with his girlfriend. He had an engagement ring in his pocket and at a beautiful overlook, he proposed marriage. His girlfriend said that she could not marry him and began crying. John sat on a rock and looked at the ring.

PAIN4

Time_Start(s)	Q_Num	Condition	Story_Text
6	1	Emotional	Aaron was going to visit his father. There was so much that he had never told his father, and he finally wanted to let him know how much he cared. When he got to his parents' house, an ambulance was there. His father had died in his sleep.
36	37	Physical	Leslie was running through her house playing tag with her friend. After going through a doorway, Leslie slammed the door behind her, but her finger was caught in the door. When they opened the door two of her fingers were broken.
66	41	Physical	Julia was sitting on a folding chair in her new room working at her desk. Julia needed to shift closer to her desk so she reached down and pulled the chair forward. Just then the chair collapsed and Julia's finger was caught in the folding metal legs.
96	9	Emotional	Judy lives with her teenage daughter. Her daughter wants to have new friends and invites a number of people to her 15th birthday party. Nobody shows up to the birthday. Judy's daughter goes into her room to cry and Judy stands helplessly.
126	30	Physical	Steve and his friend were riding bicycles together. Halfway down a hill Steve realized that his brakes were broken. At the bottom of the hill Steve went off the road and hit a tree with his shoulder. He sat on the ground cradling his broken arm.
156	7	Emotional	Alison lives by herself. Every week her son comes to visit her and they go out to lunch. Her son just lost his job and is arguing with his wife. One day Alison gets a call from her son who tells her that he has been diagnosed with cancer.
186	34	Physical	Oscar was doing the dishes after dinner. He was talking with his friends while his hands were in the soapy water. Then Oscar's hand hit a sharp knife. The knife cut deep into the skin between his fingers and the cut burned in the dirty water.
216	16	Emotional	Mark had wanted to ask Christy on a date for months. One day Mark walked up to her and asked her out. Christy said that she was not interested and walked off. Mark did not even have time to give her the flowers that he brought.
246	19	Emotional	Lissa was excited to have a solo in her upcoming performance. Her father promised her that he will be there in the front row for the concert. When the concert comes her father does not show up. After the show Lissa sat alone on the deserted stage.
276	40	Physical	Chad was collecting wood to build a tree house. Chad picked up a long plank of old wood that was perfect for the floor. The wood slid in his hand and a splinter came off. A big splinter slid right underneath his fingernail and broke off.