

Electronic Edition

**THE DAY  
THE PRIMING  
STOPPED**

**A  
Dr. Primstein  
Adventure™**



## The Day the Priming Stopped: A Dr. Primestein Adventure™

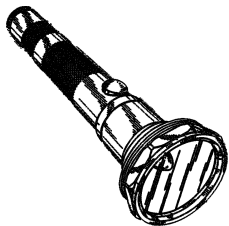
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*Life is one big priming experiment...*

*—Wray Herbert*

*These pages are not part of this sample.*



## Chapter 31

# *The Experiment*

**Y**OUNGEST winced as he stepped into the cold river and the glint of the sunrise on the water caught his eye. As the rest of the clan broke down camp and prepared for the days' travel, Youngest's job was to fill the water jugs in the river. Dago told him that standing in the river would help his ideas flow, but as Youngest pulled his feet through the muck, he believed it just as likely that his thinking would get stuck in the mud. *We should test this*

*with an experiment*, he thought...and then Youngest realized Dago was right: the scientific ideas *were* flowing!

Youngest lugged the jugs out of the river and started the trek back to camp. Thoughts of the future weighed heavy on his mind. Would he be a good scientist? What would he do for his PhD? How soon could he write his first popular book, and would it lead to a great TED talk?

When he reached the camp perimeter, he was surprised to see the clan — which Dago had recently dubbed “the Association” — were busy making camp again, rather than breaking it down. Youngest left the jugs at the edge of camp and approached Kip, who was overseeing the work.

“What’s going on, Kip? Aren’t we heading north today?” Youngest asked.

Kip sighed. “I have no idea; you’ll have to ask

Dago. About a half an hour ago he came running back to camp and told us we were staying. He said you should meet him as soon as you got back.”

Kip and Dago had not been friendly since the election to clan Chief — or Association President, as Dago now called it. Kip had won the first vote handily, but Dago pointed out that the clan members’ votes may not reflect their *true* preferences. The clan agreed to take an implicit vote: each clan member was asked to state “Kip should not be Chief” and “Dago should not be Chief”. Dago argued that since everyone was quicker to say “Kip should not be the Chief”, it better reflected their true preference for Dago.

Dago said it was the first implicit election in history, and everyone was amazed at the democratic future that Psychological science promised. Everyone except Kip, that is; Youngest suspected Kip might be a methodologist. He would have to watch Kip closely.

Youngest walked over to Dago’s tent and rang the

bell hanging from the door flap. “Dago? You wanted to see me?”

“Youngest!” Dago sprang out of the tent, already wearing his backpack. “I have something to show you. Follow me!”

Dago led Youngest out of the camp and into the woods. They headed up the gentle slope of a nearby hill, through underbrush that Dago had partially cleared earlier in the morning.

“Where are we going?” Youngest asked, as he pulled back a sapling to slip past.

Ahead of him, Dago tested a log that had fallen over a small stream. He walked across and turned around to wait for Youngest. “I found a perfect place for a new lab.”

“What sort of place? Not another river, I hope?” Youngest recalled Dago’s last experiment. Dago,



Youngest, and Kip were standing by a river, and Dago told Youngest to push Kip into the river, for science. Faster than Kip could object, Youngest shoved him into the swiftly-moving water. Dago chided Youngest, explaining that he had just been a participant in an experiment about authoritarianism.

“I can’t believe you pushed Kip into the river!” Dago shook his head. “I was surprised when he made it back a few days later.”

Youngest crossed the log and met Dago on the other side. “We’re not going to be making loud noises for this experiment, are we?” Last week, Dago followed behind Kip all day and crashed two pieces metal together whenever Kip tried to drink water.

“That was a brilliant confirmation of Skinner, wasn’t it? I haven’t seen Kip drinking water since!” Dago noted.

“I think he may have just stopped drinking water

where you can see him.”

Dago nodded. “Yes, that’s possible. This calls for more study; perhaps we could spike his water with poison ivy.”

Youngest wondered how Dago managed to be both a great leader and a great scientist. Only a true Scientist of the Mind could combine the two! Could his own future lie in politics instead of science?

During their half-hour walk, Dago and Youngest discussed whether the Presidential election was unconsciously influenced by the fact that “Kip” said backwards is “pick”, and whether walking through the woods makes them narrow-minded because they are unable to see the forest for the trees. Youngest suggested that they travel high-altitude paths, which would both broaden their perspective and make them more ethical. Dago urged caution: “We do not want to have our heads in the clouds.” Youngest agreed that middle-altitude paths would be the best compromise.

After a short scramble up bare rock, the pair arrived at a cave entrance just large enough for them to duck into. Inside the cave, there was enough space for several people to stand at arms length. The walls of the cave were surprisingly dry.

Dago pointed to the north wall. "This wall is almost flat; it will be good for showing stimuli." Youngest looked confused. Having grown up after the Happening, he had never seen a computer meant for showing experimental stimuli. "I'll demonstrate," Dago offered.

Dago set his flashlight on a raised hump in the floor, pointed it toward the flat wall, and turned it on. He waved Youngest over. "Sit here, and put your fist in front of the light." As Youngest moved his fist into the beam, it cast a large shadow on the wall. "Now raise two fingers," Dago instructed.

Youngest smiled. "A bunny!" He moved his hand up and down to make the "bunny" hop.



*“A bunny!”*

Dago was impressed. “Brilliant! Your bunny has such *flair!*”

“This will be our subliminal priming laboratory,” Dago said, gesturing around the cave. “Your PhD work will be testing the effects of subliminal primes on stimulus likability.”

“Stimulus?” Youngest asked.

Dago took a few rocks out of his pocket. “These

rocks. You will show participants a bunny or spider shadow — subliminally, of course — and then they'll rate the likability of a rock. They should like the rocks more when they are presented after bunnies." Youngest nodded in agreement. "But first, you need to practice subliminal shadow puppets. Flash the bunny as fast as you can!"

Youngest again raised two fingers in front of the flashlight and flicked the beam on and off as fast as he could. Dago shook his head. "No, no. I could see the bunny; it wasn't subliminal. Try it faster."

Youngest spent several minutes flicking the light on and off, but still Dago was not satisfied. Youngest admired what a careful experimentalist he was. Suddenly, Dago stopped him. "There! That was it. That was subliminal!"

Youngest looked down at the flashlight. "I'm actually not sure the beam came on that time..." Youngest demurred.

“It was subliminal *even to you!* We’ve got it!”

The pair continued to pilot the experiment through the day. Youngest presented a subliminal bunny or spider on the wall and asked Dago how much he liked a small rock (on a 1 to 5 scale). They had eyeballed the rocks to ensure they were of similar likability, a process Dago called “ocular equi-hedonic mineral selection (OEHMS).” It was dusk before they were finally happy with the whole experiment. They packed up and started the walk back to camp.

Youngest flicked switch on the flashlight to illuminate the path, but the flashlight did not turn on. “Dago, I think the flashlight batteries are dead.”

Dago tried the flashlight, with the same result. “I suppose it isn’t surprising, after an entire day of piloting our experiment! Don’t worry, I have fresh batteries in my tent.”

Youngest followed Dago carefully along the path

to the camp, eager for the next day when he would run his first psychological experiment. Tomorrow he would *truly* be a psychologist!



In the morning, Dago and Youngest led the Association to the laboratory cave and placed them in a queue. Dago addressed the Association.

“Prior to the Happening, we would perform an ancient ritual before every experiment called ‘the Form of Consent’. If we did not perform the ritual, the gods would become angry. And so as our advisers, and their advisers before them, we perform the ritual today.

“If you decide to be a participant in this experiment to day, you will receive Association credit. You can

leave now without your Association credit. If you leave in the middle of the experiment, you'll receive partial Association credit. You are free to leave at any time. Raise your right hand if you consent to these terms."

Several members raised their hands, but Fin — a young woman near the front of the queue — wanted more details. "What is 'Association credit'? I don't remember hearing anything about that."

Dago's face lit up as he explained: "Association credit is our exciting new way of distributing rations. When you want something to eat or drink, you'll spend some number of credits. You'll be able to eat for a whole week on the credits you earn from this experiment!"

"So, if we don't participate," Fin thought aloud, "...we don't eat?"

"Oh, no, don't be silly. We won't stop you from



getting your own food. That would be unethical! You just won't get *our* food."

The Association as a whole seemed to agree that participating in the experiment was the most compelling option, and so Dago ended the Form of Consent ritual by carving a declaration into a nearby tree:

HERE COMPLETED THE ASSOCIATION THE  
FORM OF CONSENT, PARTICIPATING IN EX-  
CHANGE FOR ASSOCIATION CREDIT

The gods would be pleased.

After setting up the experimental apparatus in the cave, Youngest called the first participant. "Sinda, you can come in now."

Sinda sat down in the place Youngest indicated. Youngest made a bunny sign, flicked on the flashlight — which seemed to him notably less subliminal today,

but this was surely due to a practice effect — and asked Sinda to rate one of the rocks on a 1 to 5 scale.

She looked confused. “What you you mean, how much do I like the rock? It’s just a rock.”

Youngest pressed her. “You know...from 1 to 5. Is the rock nice?”

Sinda squinted. “What would it mean if I said ‘two’? How nice is ‘two’?”

“That would mean it is less nice than a rock you thought was a ‘three’,” Youngest helpfully explained.

She appeared unconvinced. “I don’t know. I guess I’ll say...three?”

Dago recorded her answer as Youngest continued with the experiment. Youngest projected a spider shadow and asked Sinda how much she liked a second rock.

“Oh, this one is nicer,” Sinda said. “It’s smother and has colour flecks on it. If the other was a three, I suppose I’d rate this one a five.”

Youngest looked over at Dago. This was not how the experiment was supposed to work. The rocks presented after bunnies were supposed to be more likeable! Youngest stepped aside to confer with Dago in a hushed voice. “What should we do?”

Dago thought for a moment. “We may have to revamp the experiment. Is your spider shadow too friendly looking? Can you make it scarier?”

Youngest was thinking about how to make his shadows more scary when a sudden inspiration hit him. “What if — what if she likes the rocks presented after spiders because one can use rocks to smash spiders?”

“Yes...yes...and maybe because she’s a woman, she wants to smash the spider more...?” Dago thought

this was eminently plausible.

“How exciting experiments are!” Youngest smiled. “Even with two trials from one person, our understanding of the mind grows!”

They continued in like fashion until the last participant, exploring interactions between rock colour, rock shape, participant sex, and many other subtle facets of the experiment. At the end of the day they had developed a complete theory of the relationship between rocks and affect, supported by no fewer than three evolutionary explanations. They walked back to camp and settled into Dago’s tent for data analysis. Youngest began by counting the participants. “We ran a total of 29 subjects,” he concluded.

“Twenty-nine? Shouldn’t there be thirty?” Dago wondered.

“Kip refused to be involved in any more experiments.”

Dago stroked his chin in thought. “Hmmmm...we might treat his data as missing and try imputation...or...” Dago had an idea. “Youngest, go find Kip and bring him here.”

Youngest nodded and left to fetch Kip, returning a few minutes later through the tent flap. “Kip is outside.”

Kip called into the tent from outside. “I’m not going to be in any more of your experiments! I’m not coming in there!”

Dago answered Kip: “We’re not asking you to be in our experiment; we just thought you might be able to help analyse the new data...but if you don’t wa—” Kip was already inside the tent.

“Data?” Kip looked around the tent. “You have data?”

“Yes,” said Dago, “we were just about to compute

summary statistics, and thought you could help. I'll call out the numbers, and you both compute the means so we can cross-check your answers." He began with the *bunny* condition. "Four...two...five..."

Kip interrupted him. "Wait, what are these numbers? What am I adding together?"

Dago smiled. "Oh, they're just...*likability ratings*, from 1 to 5."

Kip winced. "You shouldn't interpret the mean of ordinal da—" He stopped before completing his thought.

Dago locked eyes with Kip. "Is something wrong?" Kip shook his head. "Let's continue, then. Three...three...two..." Dago subtly positioned himself between Kip and the door as Kip and Youngest continued adding the numbers. Kip suddenly stopped and threw his pen across the tent.

“NO! These data are ordinal, so the mean is arbitrary! This is madness!”

“No, my *methodologist* friend,” Dago pinned him to the chair before he could get away. “*This is psychology!*”

Kip tried to loose himself from Dago’s grasp, but his grip was too strong. Dago turned to Youngest. “Have you finished computing the means?”

“Yes. In place of Kip’s missing data I just filled in the overall means. That’s OK, right?”

The colour ran out of Kip’s face and he jerked against Dago’s firm hold. Dago lowered his mouth to Kip’s ear. “Yes, Kip,” he whispered, “tell us about *imputation...*”

“I don’t know what you’re talking about!” Kip screamed.

“Oh, I think you do. Who sent you? Where are the

methodologists quartered?”

“I have no idea! I’m not a methodologist! Please, just let me go...”

Dago smiled. “We’ll see about that. Youngest, compute...*the standard errors of the means.*”

Kip shook his head violently. “No, stop! I’ll tell you anything you want to know! I was sent by the methodologists to spy on you. We heard you might have a cure for the anti-priming virus.”

Youngest looked confused. “Who could have told them that?”

Dago squinted. “The Publishers. They’re playing both sides.” Kip nodded.

Dago pushed Kip further. “Where are the methodologists quartered?”

Kip motioned with his head to the west. “We have



a fortress about 50 miles west of here. But you can't get in. Most of it is underground and guarded by men with Gauss rifles."

Dago raised an eyebrow. "Why would we want to get *in*?" Dago asked.

"I though you knew—" Kip hesitated.

Dago laughed. "It doesn't matter; you've told us enough. Youngest, it's time we play the methodologists' replication game! Tonight, I am Zimbardo, the Association are prison guards, and here we have our prisoner!" Dago lifted Kip by the shoulders and pushed him out the tent.

"Just to be clear," Dago added, "you're still on the hook for Association dues."



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### Cave

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