

The Paradigm Discourses

“Halfway There”

Five out of four people have trouble with fractions.

Reason snuck over to Paradigm and Mathematics. “I’ve a nose for trouble, and you two are up to something. I want in.”

Mathematics whispered, “Paradigm thinks he has an FTL protocol.” Reason’s eyebrows ascended. “Really. Another one?”

“I’m choosing to remain skeptical. Unless we are going to invite Dogma into our cabal, someone should play devil’s advocate.”

“Don’t invite him yet, too soon, there will be a right time to introduce him to Paradigm’s latest hairbrained scheme. Trust me on this, our objective should be to maximize his, how shall I say it, involuntary reaction.”

“Shush, you two, I think she is about to wrap up the game.” They huddled down even farther behind the decorative plant.

Reason, eyebrows raised, “Paradigm, spying on Curiosity, I didn’t know you had it in you.”

“I’m interested in the wire drum.”

Reason looked at him like he was an idiot, “I see.” Wiping his hands on his pants, “No, wait, I don’t see. Why do you want the wire drum?”

“It’s a randomizer.”

“Paradigm, stop talking in riddles...”

Paradigm turned and looked up at Reason, from a bit of an awkward position. “I think we can use it to make a pair of envelopes indistinguishable.”

“By putting them in the drum and rapidly rotating it?”

“Exactly.”

“That won’t randomize them, centripetal force will just stick them to the sides of the drum.”

Mathematics and Paradigm looked at each other, and then at Reason. “Oh, well that was a stupid idea.”

“Do I understand that you don’t want to be able to tell one envelope from the other?”

“That’s right, but we do want to open them at the same time.”

Reason thought for a moment, “Then why not just hide the addresses? You say you want to open them together, at once?” Paradigm nodded. “Then just place them face to face, that will hide the destination address, the source address, even the postal marks. You’ll have no idea which envelope is which.”

Paradigm and Mathematics stood, stretched, looked sheepishly at each other, then back at Reason. “Reason, that’s a capital idea. Don’t know why...”

“Alright boys, out with it. What are you three doing over here in the corner? You’re scaring this poor plant.” Busted. While arguing with Reason they had failed to keep an eye on Curiosity.

Reason, “My darling, we were just brainstorming over here how to attract the attention of any comely women. See any?” She punched him in the arm. “Cute, but I’m not buying it.”

Paradigm tried a different tact, “Have any glue?”

Hands on hip, “We’ve been down that path before. Ok, I give, just read me in before you reach any climax. Fair enough boys?”

From more than one of them, “Yes, ma’am.”

“I’ve got to put all this Bingo stuff away anyway.” She returned to her voluntary duties.

Reason, “That comment about glue was a joke, no?”

“Sort of, unfortunately, we could actually use some.”

“What about some double-sided tape?”

“You have some?”

“Back in a jiffy.”

They all met back at the dining room table. In short order they had two stacks of 30 pairs of envelopes each, the send stack used double-sided tape to keep each pair of envelopes face to face, the receive stack used a paper clip, both envelopes facing the same direction.

As Paradigm opened each taped pair, Mathematics kept a tally. As expected, they matched about twice as often as they didn’t. Paradigm started a happy dance, but Reason just pointed to the inbox, “We still need to check what the receiver got. You know, the one way, *way* over there.” He pointed, with exuberant exaggeration.

“Oops.” Together they opened the pairs of receive envelopes separately, but the results were not what they were expecting; Of the 30 pairs of envelopes in the outbox, which per Paradigm’s protocol were opened individually, only 16 matched, the other 14 were opposites. Statistically, the receiver coins were not correlated. It should have been around 20 to 10.

Paradigm, deflated, looked at both, “So, the sender can send herself data, but the receiver gets nothing. Great, that’s just great.” He shook his head in disbelief.

While the work was progressing, Logic and Dogma had formed a bit of an audience discretely observing their little side project.

Reason, “I need a beer.” He left for the kitchen.

Paradigm didn’t make eye contact with Dogma, if he was wearing a smug look, he didn’t want to know about it. Instead, he pointed at the mess of opened envelopes. “Looks like I was wrong – again.”

Logic nodded but stepped forward. He started flipping through the opened envelopes, the ones which had been taped face to face. After a moment, he asked a question, “Did Reason help?”

“Yes, why?”

“Well sometimes, he is little less than precise. Look at the envelope pairs, the ones taped together.”

Paradigm started flipping through them. “So what? Every pair was face to face, hiding the addresses, the envelopes were indistinguishable, as we intended.”

“Look closer, were they all right side up?”

Paradigm did a quick double check, “no, they weren’t, some were upside down, about half it appears. Does that matter?”

Proof, who had quietly joined the audience as well, grabbed a pair of spooky coins, and stuffed them into two envelopes. He placed both on the table, face up, in a horizontal position, then rotated one of them until it was upside down, but still horizontal.

“You all know that the spooky coins should be opposites, that being opened horizontally, one should be gold, the other silver. If I had stopped the rotation when the envelope was vertical, it would have disgorged either a platinum or an osmium coin. Correct?”

Everyone nodded. “But if you continue rotating, you can flip the correlations.”

Paradigm reached over and opened the two envelopes, slowly, like at your own birthday party, when you know this is *the* gift, the one you really wanted. He was not disappointed, both coins were gold, correlated, not anti-correlated.

“If you rotate by 180°, call that flipping, then the correlations for spooky-coins change from anti-correlated to correlated. Your receiver didn’t receive a bit, because you, accidentally, sent half a one bit and half a zero bit.” He smiled. “A *bit* clumsy.” *Aargh* was heard from several quarters, but Paradigm released a hearty laugh, then put his arm around Proof, “You’re my new best friend sir, even puns can be...digitized.”

Reason returned, a half-consumed beer in hand. It was a thing of beauty to watch his face when everyone at the table pointed at him and said, “You!”

Paradigm, a bit exhausted, but committed, “Well, we get to do this all over again. Now that we know what we’re doing, let’s set this up on the white track, and make the machine do most of the work.”