

Frank had three days left on his shift when he looked up and realized that the picture of the President on the far wall had changed.

"Damn. So close."

With a barely audible puff, Frank materialized in a small storage closet adjacent to a conference room. The cheap, military-issue desk had been pushed aside, and three people clad in black jumpsuits were hunched over something that Frank couldn't see.

"Howdy, folks!" Frank exclaimed, cheerfully. "Here to kill Hitler?"

The three whipped around, allowing Frank to see them clearly for the first time. Two men and one woman. The big guy on the right was clearly the muscle for the mission, and his right hand was already on the butt of some sort of pistol.

The woman in the middle was slightly taller than average, and Frank was undecided-- scientist or idealist? Her eyes conveyed confusion, but not panic or fear-- certainly not as much as their third partner, who looked to be on the verge of voiding his bladder.

This building was completely shut down at this time of night, surrounded by guards, patrolling the perimeter with dogs, and every entrance locked and every window alarmed. There was absolutely no way in- unless you came from a culture that had mastered the creation of Einstein-Rosen bridges.

"How did you get in here!? Who are you?!" The little guy looked around the room frantically, taking in the fact that they stood between Frank and the only door into the room.

Frank raised his hands in a universal gesture of placation, and tried for force as much cheer into his voice as possible.

"It's ok, calm down. No need for anyone to panic here. Let me guess, you're from the future, you invented a time machine, " Frank pointed at the not-quite 2 meters tall, shimmering, multi-hued circle behind them, "and you came back here to kill Hitler and prevent World War II, right?"

The big guy spoke up for the first time, not disappointing Frank with his deep, rough voice, and predictable question: "Who's asking."

Frank appreciated how the tough guy turned a question into a statement. Half the time, these groups didn't even bother to bring security with them, and it always made him a little sad when some nerd who clearly missed more than a few meals due to bullies taking his lunch money tried to get all tough. It was worse when it was a mixed sex group, and you had to worry about long-unrequited feelings driving someone to do something stupid in a last-ditch effort to impress their intended. *You just broke the laws of time and space-- if that didn't impress them, your little Cro-Magnon display probably won't*, had long been Frank's opinion on the matter. Assuming that they passed through that evolutionary stage, of course.

"I'm Frank, from Timeline Integrity. How are you?"

Frank could see that his friendly, unassuming, matter-of-fact tone was mostly serving its purpose- the goon hadn't pulled his weapon, the gal hadn't screamed, and the little guy's crotch still looked dry, although it was hard to tell with the black jumpsuit.

"Look, I'm sure that you've got a whole lot of questions, and I'm happy to give you answers, but this is going to go a lot more quickly and simply if everyone stays calm. A patrol's going to pass outside in about ten minutes, and it would be better if they don't decide to stick their heads in here."

To emphasize his "no big deal" attitude, Frank pulled the chair over and sat down, looking up expectantly at the trio. As he expected, the woman was the first to start to catch on.

"So you know why we're here, you somehow know the patrol schedule, and you got in here in what I'm assuming is the same way that we did. And when you claim you work for 'Timeline Integrity', I have to further assume that you've got a time machine of your own. How am I doing?"

"Got it in one!" beamed Frank. "Do you want to keep going, or should I start filling in the blanks? And if you don't mind, could I get your names? It's starting to get a little awkward."

Both guys looked like they were going to try to stop her, but she beat them to the punch. "I'm Jody Cavendish, this is John Grady, and the big guy prefers to go by Turk."

"Thanks for that, Jody. If I can make a couple assumptions of my own, I'm guessing that you and John are the scientists, and Turk, no offence, you're here to make sure that they don't get interrupted?"

"Not quite," growled Turk. "John's actually the idealist with the money backing the venture. But Jody and I are the ones who figured out the process for generating the wormhole. Not all scientists are tiny dorks, and not all guys who give a damn about staying in shape are muscle heads. Besides, don't you think someone smart enough to figure out how to rip a hole in the universe to go back into one of the most heavily defended locations in all of Germany might also realize that his best shot at surviving that experience would be if he was able to take care of himself?"

Despite the delivery, Frank saw a twinkle in Turk's eye as he said it, and found his fondness for the big thug, and the three of them in general, growing.

"My apologies," Frank said. "It's nice to see that the law of averages still has its exceptions."

"Why are you two being friendly with this guy? You've already told him too much! We should just kill him and finish what we started!" whined John.

And that's why the house always wins... thought Frank. Just when you think that you've got an easy one this time, competent, prepared people, you realize you're stuck with the stereotypical romantic who's hell-bent on the original plan.

Frank turned to him directly. "Look, John, you don't have to worry. I'm not here to get you in trouble or anything."

"But you're not going to let us finish, are you?" asked Jody.

"Got it in one again!" replied Frank. "But maybe your friends who didn't skip ahead to the last chapter would feel more comfortable if we started at the beginning?"

"Ok. Talk." Jody sat down on the floor as she said this, giving Frank his first good look at the bomb behind them.

They really aren't messing around, he thought. That looks sufficient to take out the whole complex. A pity that we can't talk more about their timeline.

"No problem, Jody. Do you two want to sit? This is going to take a few."

Turk thought about it for a second, then settled for leaning against a shelf. Frank noted that while he no longer had his hand on his pistol, it wasn't very far away. John just stood there, starting to work himself up to a good quiver.

"Let's get the basics out of the way. You have your own time machine, we're in agreement on that?" Frank asked.

"Got it in one," smirked Jody.

Frank's smile was more genuine this time. *Why can't it always go like this?*

"Ok, so that means you figured out how to create a wormhole, then figured out how to position it, maybe you messed around with teleportation for a while, and then at some point, you realized that in addition to the three dimensions of space, you could also adjust the fourth dimension of time, and a few experiments later, you're here to stop the Holocaust. Does that sound about right?"

"You skipped about 10 years of my life, a Nobel prize, and my fiancée leaving me at the altar, but that's about how it went," said Turk. "Jody and I were grad students at the same time, and happened to discover each other's research through the holo. We started collaborating and had a basic proof of concept working within a couple years. John got wind of it, and backed it to the point of making it practical. Eliminating the physical limitations of shipping made him a billionaire, and gave him the funds to keep backing our R&D until we figured out the temporal element."

Frank nodded appreciatively. "Out of curiosity, what approach did you take?" Frank waved in the general direction of the wormhole. "Exotic matter? Vacuum vibration? Quantum foam? Warp coil?"

"Anti-tachyon decay induced via superconducting torus," answered Jody. "What's that you're saying about 'vacuum vibration...'"

"Never mind that," Frank cut her off. "I've probably told you a little too much already, but I always am curious."

"So we're not the first time travelers you've encountered, I take it? And if you say 'got it in one' again, I swear I'll slap you." barked John.

"No sir, you are not. Hence 'Timeline Integrity.' Just to be certain, you can only go backwards, right? You haven't worked out how to move forward?"

"Not so far- our models theorized that it's possible, but we haven't been able to make it work on any scale," offered Jody.

"Don't feel bad, no one else has either. At least not yet..." responded Frank. "We're pretty sure that it's not possible, but hey, for decades, so was this"-- he vaguely waved his arms around "--and here we all are, right? I assume that you've come up with the theory of parallel universes?" As Frank expected, Jody and Turk both recognized it right away.

"You're talking about the idea that there are an infinite number of existences? Or maybe the idea that every decision spans a separate universe for each possible outcome, effectively resulting in the same thing?" Jody suggested.

"More or less. I can tell you that parallel universes exist, and that you've travelled to one."

Frank paused, and waited expectantly. He wasn't disappointed.

"Ok, I'm pretty sure I know where this is going," said Jody, "but maybe you want to give this one a shot, Turk?"

Turk mulled it over for a second, and then responded. "Since we're not in our original universe, anything we do here isn't going to have any effect back home, is it? This whole thing's been for nothing."

Frank looked John directly in the eye and replied "Got it in one."

John's quivering reached a point where Frank thought he might independently generate his own personal wormhole, but before he could lose it, Turk chimed in again.

"I don't get it. What did we miss?"

"Honestly, I'm not certain," said Frank. "If you accept that you're in a parallel universe, then the fact that we're all talking about Germany and World War II in English and sharing the same number of appendages is pretty solid evidence of parallel evolution, right? Or at least that we're sitting in the sweet spot on the bell curve?" Even John had to reluctantly nod his agreement.

"So as best as we can tell, whenever someone, *anyone* develops a time machine, for whatever reason, it defaults to this universe."

Jody and Turk exchanged a look that clearly indicated they didn't believe it, so Frank stepped back in again. "I know, it seems impossible, but let's talk through this. When you ran your first experiment, you locked your wormholes into a plane that was arbitrarily parallel to the floor of your lab, right? You didn't start out by connecting the basement in the east corner to the lobby?"

They begrudgingly acknowledged it.

"And I bet that you started at some multiple of a meter, right? Or whatever you call the distance light travels in a vacuum in 0.00000003335640 seconds? It's funny how that changes sometimes."

"We actually use things called '*feet*', and it's a little more, shall we say, '*traditionally defined*', but you've got the gist of it," responded Jody.

"Hmmm, surprising. But no matter. The point is that thanks to parallel evolution and the practicalities of the multiverse, while there are a number of ways to generate a wormhole and build a time machine, pretty much everyone takes the same steps to get there. And for reasons that we've yet to discover, when people start experimenting with time travel, they always end up here."

"You're saying that there's some factor we're not accounting for when we adjust the temporal terminus of the wormhole," Turk answered, clearly focused on solving the problem more than answering the question. "I know you're dying to say it, but I can see that I'm right, so don't bother. But what I'm not understanding is how you know all this, or about all of us?"

"And why you're saying that we can't kill Hitler!" whined John, who was feeling increasingly left out.

Frank turned to John and asked "What did you think was going to happen after you set off your bomb and you returned home?"

John assumed the attitude of someone trying to sound smart when they actually had no idea what the words they were saying meant.

"Well, obviously, due to time travel paradoxes, we were concerned that changing the timeline might result in the wormhole collapsing, stranding us here, but we viewed that as an acceptable risk to stop the genocide of millions of innocent people."

"And assuming that the wormhole didn't collapse?" Frank could tell from Jody and Turk's body language that they were confident they had a return ticket home.

"Well then, obviously the timeline would have shifted, but we'd know what happened, and even though things had changed, we would know that we'd made things better for everyone."

Frank turned back to Jody and Turk. "So you're counting on exploiting the 'twin paradox' to continue existing and to remember what happened before you took this trip and turned on the timer on that thing back there?"

Jody started suddenly at that, having completely forgotten that five minutes ago, she was in the process of assassinating a world leader, and most of the people in the immediate area.

Addressing John again, Frank enlightened him. "We know that time dilation exists- the closer to the speed of light that you move, the more slowly time passes. Once a society comes up with a general theory of relativity, almost always courtesy of Einstein, less frequently from Stark, someone comes up with the thought experiment about taking two twins, shooting one off

towards Alpha Centauri at a significant percentage of the speed of light, then bringing them back and seeing which is older."

"I don't get it." said John.

"You're not alone." replied Frank. "But fortunately, these two do, I expect, and to answer your question, Turk, this is how we know what's going on."

Turk glanced at Jody, and could tell from the look on her face that she had the answer, but she just smiled, shook her head "no" and let him suffer.

"Ok, Frank. What's the part that I'm missing?"

"The solution to the paradox is straightforward- even though from a purely prosaic understanding of general relativity--" Frank so emphatically *didn't* nod at John here that it was more insulting than if he had "-- when one observer sees another traveler move quickly past their frame of reference, they expect time dilation to occur for that traveler. But *each* twin observes the *other*, so each should expect to see the other to age differently. But only one of those twins experienced an *acceleration*, and thus we can determine which one ages more slowly.

You were expecting to make it back home, bodies and memories intact, because you're the ones who experienced the acceleration when you crossed through the wormhole and jumped time.

But here's the flip side of that-- a side-effect of that quirk of physics that locks you to only this universe is that whenever someone shows up here, you give us just the tiniest bump. Believe it or not, you give this whole universe just enough of an acceleration that we all experience the same effect that you hope to exploit to make it back home and bask in the memory of a job well done, even if it turns out that Stalin stepped into your power gap and made the Holocaust look like a family picnic (80% of the time), the Chinese seek revenge on Japan and develop the first nuke, turning the home islands to glass (10% of the time), or half a dozen other equally negative outcomes.

So since right around the time of this war that you're hoping to preempt, as a society, we started to notice changes. When you wake up in the morning and the name of your country isn't the same as it was yesterday, well, after you get the courage to ask your wife or friends 'Didn't we used to be called England?', it doesn't take long for everyone to collectively realize that someone messed with the timeline."

Turk's face turned unexpectedly sympathetic for someone who's default setting was "surly."
"So I'm guessing this happened a lot? One morning you're living under the 3rd Reich, the next a worker's paradise, a week later, a guerrilla cultural revolution?"

Frank lowered his head and stared at the floor as he replied. "Yeah. As various civilizations across the multiverse advanced and recovered from the war, more and more of them developed the ability to create wormholes and jump time. While there was a certain amount of bitter amusement at the ones who showed up late, only to discover that Hitler'd been killed a dozen times previously already, life was pretty much a living hell. Imagine waking up every morning to

discover that someone replaced your furniture and clothes times a million-- we all knew what was happening, but we had no way to stop it."

Jody jumped in: "But you obviously did manage to get some sort of a handle on it. After all, 'Timeline Integrity,' right? And you're standing here right now, so obviously you eventually acquired the technology."

"That's right," Frank replied, looking up from the floor. "In some ways, it actually was a boon for our society. We never hit the traditional nuclear proliferation and standoff that most of you did after this war. Instead, we had a second Manhattan Project, this time as a group effort, to develop our own time travel capabilities. It helped that we knew it was technically possible, because obviously someone was doing it. And once we were able to get a working model, things snowballed pretty quickly."

John stopped shaking long enough to rejoin the conversation. "I don't get it- it took us 10 years to get to this point, and every inch of progress has taken ages, not to mention millions in R&D costs. This trip alone is going to bankrupt my company, not that the company will still exist when we get back. How did you guys manage to accelerate so quickly?"

"You're a businessman, right? And familiar with the general history of business and trade, the great merchants and all that?"

John nodded.

"So tell me, how did trade affect various cities and cultures over time?"

John finally caught on. "Trade centers become hubs of learning. The merchants didn't just bring goods with them, they also brought knowledge-- mathematics, astronomy... Weapons technology alone must have been responsible for uplifting dozens of cultures as they had to keep up or die, literally."

"Exactly" beamed Frank. "And that's basically what happened here-- since we're for some reason the default universe, we get visited by every culture that advances far enough to master time travel. Further, we get to see all the ways that it's been accomplished-- we avoid the dead ends, and can instead lick the whipped cream from all the best ideas."

"So how long did it take you to get to this point?" asked Jody.

"It took you a decade to just make this first step. 15 years after our first timeline shift, we'd advanced to the point where we could pinpoint a shift, and arrive in time to intercept and deflect it. "

"Hence 'Timeline Integrity,' right?" she continued.

"We made a conscious decision as a civilization that we didn't want to try to edit our past. It doesn't really help you to undo the Holocaust when everyone remembers it happening. And as I mentioned, many of the attempts to make it better just made it worse. Much worse.

So we decided that we would just play the hand that we were originally dealt. The Timeline Integrity corps was formed to train volunteers to manage encounters like these, and talk our visitors out of, well, that." Frank pointed pointedly at the large bomb.

John suddenly found a backbone, and asked menacingly "And what if we don't believe you? What if Turk here kills you, we set the bomb, and see what happens? What if we decide to do it anyway, because we still think that it's the right thing to do?"

Frank met his eye, all pretense of trying to be nice gone. "This visit is half curiosity, and half courtesy. Curiosity, because maybe you've done something we haven't seen before. Frankly, it does look like you guys may have some new toys or ideas, but you're not so unique at first glance that we'd look at opening communication with your civilization. Courtesy, because we're here to tell you to stop wasting your time and money on time travel. It's a dead end, and it just irritates us. Take your wormhole tech back home, and figure out how to solve an energy crisis, or avoid the climate change cliff that you're gonna hit if you're stuck on fossil fuels, or hell, just write this all up, publish it, and collect that second Nobel. But I'm afraid to tell you, nobody's dying here today."

With a speed that Frank wouldn't have believed he was capable of, John grabbed the gun from Turk's holster and pointed it at his chest.

"I still don't believe you. I've already resigned myself to killing a whole bunch of people today, I think I can live with one more."

"You forget the basic rule of dueling time travelers- the guy who goes last wins. You guys *did* get the sequel to Bill and Ted, right? And since this is our universe, and we all remember what happens when things change, we always get the last turn. So if I don't wind up coming back, someone else from Timeline Integrity's going to open a wormhole into this room, watch our whole conversation, and then they're going to jump back in here BEFORE you arrive, and jam your wormhole from opening. I wind up back on shift with an unpleasant memory of having failed to reach a peaceful resolution to the situation, and depending on what the auditors see during the debrief, I might go through retraining. Or I might get drummed out entirely."

"You really could have stopped us from showing up in the first place?" Turk asked.

"Yep. On your end, it would have just looked like yet another experimental failure- the opposite end of the wormhole fails to open, the conduit never stabilizes enough for you to pass through, things like that. We've got enough people trying to see the death of prophets or figure out who assassinated so-and-so that certain significant events in history are more or less on permanent lockdown. For cases like Der Fuhrer here, it's not really possible to block an entire life, so we just have to deal with it on a case by case basis."

"I don't believe you," John repeated, raising the gun higher. "Or maybe I don't care. I've sacrificed too much to get to this point, so maybe I'll just roll the dice and see what happens. It sounds like the worst case scenario is that none of this happens anyway, so what have I got to lose?"

With a sigh, Frank put his right hand on his left wrist, and a moment later, disappeared with an audible pop.

Before anyone even had time to blink, Frank reappeared behind John with a barely audible puff, and reached out and took the pistol from his hand.

"If we're done playing 'any sufficiently advanced technology...' for the day, can we get back to the discussion at hand?"

Frank turned to Turk and handed him the pistol, admonishing him "Don't let him take this away from you again," then returned to his chair.

"Impressive," said Jody. Are you able to control all three dimensions of the wormhole, or are we looking at a whole bunch of little ones?"

"3D's not worth the effort when you can get by with smaller ones," Frank answered. "The real trick of it is getting the pants without taking the chair- it really spoils the effect."

"You mean you show up back here with your ass hanging in the breeze?" she queried.

"No, I'd just stop and change before coming back. But if I'd left a hole in the chair when I left, well, I wouldn't be quite so comfortable right now, would I? Anyway, back to business- are you two comfortable with what I said? John just forfeited his vote. And we have about 2 minutes before that patrol swings by."

Turk gave John a look that had "formal letter of resignation" written all over it, then said "Well, you've at least cleared up some unexplained experimental failures. And I'm sufficiently convinced by your little demonstration. Jodes?"

Jody rose from the floor and dusted herself off. "After all this prep, I can't say that I'm not feeling like we failed, but I'd just as soon not kill a bunch of people, or even one, to get back home and discover that nothing changed. And Frank here seems like a decent guy. Time to head back to our universe."

Frank nodded his head, accepting the compliment. "That thing looks dangerous- if you like, I'd be happy to dispose of it for you. We do have a fair amount of experience in this thing..."

Turk corralled a now-defeated John and started pushing him towards the portal as Jody looked back at Frank.

"And I'm guessing that in the process, you're going to go through that thing with a microscope to see if these traders from across a distant sea can't expand your knowledge just a bit?"

Anyone growing up in a universe that produced Harrison Ford would immediately have recognized the gesture that Frank made with his arms to indicate that they'd figured him out.

"What can I say? But what kind of trader would I be if I didn't offer you something in return?"

Frank reached into his pocket and handed Jody a card. She examined it, noting that the top set of numbers was slowly changing, while the bottom were static.

“Our current ‘present’ on top, on the bottom, radians and degrees from this current location, measuring from the pole with the fixed star above it. That should be enough for you guys to find our visitor center, in our present day.

Of course, you’ll have to work out on your own how to skip to our universe without going back in time, but don’t three Nobel prizes look better on the mantel than two?”

“I thought you said that our civilization wasn’t unique enough to open a dialog,” Turk said with no small degree of skepticism.

“Well, when I ducked out a second ago, I actually ran down the hall and talked to some folks before coming back. Grabbed a soda too, but that’s not necessarily relevant. Anyway, we popped a couple exploratory ‘holes and checked out your toy, and folks were impressed. Hence, the invitation. Come visit, we’ll talk more, everyone walks away a little smarter.”

Frank paused for a second.

“Maybe leave John home.”

Jody looked Frank square in the eye and said “All this, of course, is predicated on us figuring out how to skip universes without skipping time? We have to pass your test before we get to look at the big books in the library?”

Frank gave her a big grin, and replied “Got it in one.”