Computability

by

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In Dedication to Alan Turing

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Cast:

Alan Turing: A brilliant, awkward 27 year old. He is on the precipice of greatness, but has yet to understand his full potential, too wrapped up in his own neuroses to do so.

Ludwig Wittgenstein: The esteemed professor, willing to break boundaries and do away with formalism. Cocky, but damnably bright.

Christopher Morcom: Turing's classmate when he was a schoolboy, now dead. Turing talks to him frequently, and Morcom seems to talk back. The assumed beginnings of Turing's sexuality.

George: One of the students in Turing's class. George is cruel, with a pinched face, and even tighter personality

Charles: One of the students in Turing's class. Charles is quiet, but he is always listening.

Albert: One of the students in Turing's class. Albert is cheerful and comic, even if he tends to be the butt of the joke.

SETTING:

Cambridge University, 1939. The majority of the action takes place in a "classroom," really a collection of armchairs in a gorgeous sitting room around a fireplace. Small scenes take place in a corner of the stage established to be Turing's simple bedroom.

LIGHTS UP

(ALAN TURING'S room is revealed, in a corner DSR. It is VERY sparsely furnished. A desk and a bed sit there, with a dresser underneath the bed. The desk is covered with papers filled with mathematical symbols and books, including Turing's own "On Computable Numbers," and Einstein's "Annus Mirabilis." There are three pictures framed, one of a young Turing and his family, one of a young Turing and Christopher Morcom, and one of Snow White from the Disney movie. There is an apple half eaten on the desk as well. A worn bicycle leans on the desk. ALAN is hurriedly packing clothes, throwing them into a travel bag. CHRISTOPHER sits on the bed watching.)

TURING:
Damn it all to hell Christopher it isn't that easy!

CHRISTOPHER:
You're not thinking straight. Leaving now won't achieve anything.

TURING:
I came here to learn. I wanted to delve into the mysteries of the universe and solve them with beautiful numbers. I will not routinely be mocked by my professors. I will not abide being sneered at my peers. I refuse to let them call me faggot, or poof, or queer. I-

CHRISTOPHER:
You are showing weakness.

TURING:
Well maybe I am weak!

CHRISTOPHER:
Words I never thought would pass from your lips. Alan Turing admitting weakness. And here I was thinking you were a robot.

TURING:

Were that I was. But I am a mere mortal, not a machine, and I can not take this any longer.

CHRISTOPHER:
Stand up for yourself.

TURING:
Have I not tried! My work should speak for me. They should know who I am through my math and yet, they refuse. My own damnable professor mocking my ideas.

CHRISTOPHER:
There’s a difference between mocking and questioning.

TURING:
I know the difference!

CHRISTOPHER:
Alan you’re a mathematician, try to be logical. This is a great school, and you’re learning from great people, and working with the future leaders of the field.

TURING:
I’m with children. I am beyond them in every sense of the word. They live in the past while I, I look towards the future.

CHRISTOPHER:
I’d say you look towards the past as well.

TURING:
(pause) You’re different.

CHRISTOPHER:
What am I but the past? A memory. A ghost.

TURING:
A friend.

CHRISTOPHER:
Friend?

TURING:
A...a friend yes.

(CHRISTOPHER looks visibly displeased at this)

CHRISTOPHER:

You’re talking nonsense. Living in a fairy tale.

TURING:
Then can’t you just let me live there?

CHRISTOPHER:
Not when you could be great.

TURING:
What if I don’t want to be great?

(LUDWIG WITTGENSTEIN appears in the light. He is smartly dressed, yet seemingly without care. A grin perpetually hangs off of his lips, even as his eyes betray great weariness. He does not see CHRISTOPHER)

WITTGENSTEIN:
Unfortunately, that is a choice others make for you.

TURING:
Professor! My apologies, I didn’t hear your knock.

WITTGENSTEIN:
That is because I didn’t. And if you’re leaving Turing, you no longer have to address me as Professor.

TURING:
I prefer Professor.

WITTGENSTEIN:
Very well. I do have to say Turing, talking to yourself is a dangerous game.

TURING:
I wasn’t talking to myself.

WITTGENSTEIN:
There’s no one else here.

CHRISTOPHER:
That was rude of him.

TURING:
(glances at Christopher)
Right. Well.

WITTGENSTEIN:
I’ve spent a semester trying to understand you Turing, I can’t imagine I’ll start to now.

TURING:
I am often presented as a conundrum.

WITTGENSTEIN:
Maybe one of your machines will solve it.

(TURING furrows his brow and continues packing)
A joke Turing. Maybe spend less time in your room and more time with your peers hearing them.

CHRISTOPHER:
That was humorous Alan!

TURING:
I have little interest in my peers and their jokes.

WITTGENSTEIN:
Understandable. You are after all, greater already then they ever will be.

TURING:
I didn’t say that.

WITTGENSTEIN:
I’ve watched you for a term now, you didn’t need to tell me.

TURING:
I...I just don’t think there is a place for me here.

WITTGENSTEIN:
You said something rather similar to me the first day you were here.

TURING:
I do not remember.

WITTGENSTEIN:
Feel free to not like me, but don’t pretend you don’t remember everything you’ve ever said. Our egos require that.

TURING:

I said...I said that there was no place for me in mathematics and so I intended to make one.

WITTGENSTEIN:
There we go.

TURING:
I say a lot of things I don't mean.

WITTGENSTIEN:
No you don't.

TURING:
No. I don't.

WITTGENSTEIN:
How far have we come, and yet how little distance have we traveled.

TURING:
A term passes quickly.

(We hear a railroad screech, followed by soft piano music. LIGHTS OUT on TURING'S bedroom, and LIGHTS UP on WITTGENSTEIN's classroom. There are armchairs laid about, and a large mantle. The walls are lined with mathematical texts, as well as the complete works of William Shakespeare in individual bindings. TURING enters nervously, cautious of the fact that he is the last one to arrive.)

SCENE II

(LUDWIG charges in, taking off his hat and coat as he walks center, throwing his hat on his desk and his coat on his chair.)

WITTGENSTEIN:

Look sharp boys!

(All the students, including TURING, GEORGE, a thin boy with a scrawny face and a mean glint in his eyes, CHARLES, a quiet man, and ALBERT, a jovial young man with a paunch.)

Why are we here?

(beat)

CHARLES:

Math?

(GEORGE throws a piece of paper at him)

WITTGENSTEIN:

Excellent Charles, you know what department you're in, good that's the first step. Yes, we are here for "math" but WHY are we here.

ALBERT:

Well it beats me!

WITTGENSTEIN:

Smart Albert! Getting closer. We can not learn if we do not admit what we don't know.

GEORGE:

The foundations of ontological mathematics

WITTGENSTEIN:

Jesus. When you put it that way it really sucks the air out of the room. Turing, make it fun!

TURING:

I beg your pardon?

WITTGENSTEIN:

Well mathematics is fun, correct? Otherwise we wouldn't be here.

TURING:

I am not here for fun.

WITTGENSTEIN:
Then I'm afraid you may be here for the wrong reasons.

(TURING shifts in his seat)
Look boys. We are here to pull back the curtain. To expose the gears and cogs that make the world tick tick tick along. I suppose we are here for "math" or for "the foundations of ontological mathematics," but what I see, well what I see is mathematics as an elusive magician. And we are, bit by bit, learning how it performs each trick. That is why we are here. I am not interested in discussing Russell's axioms or Neumann's theories, no disrespect Turing. I am far more interested in understanding why we presume these things to be true. I propose it is not discovery. We instead experiment. You might say come, a child when he calculates 25 X 25 and gets 625 doesn't invent this. He finds it out." Of course, he doesn't invent mathematical fact… But the analogy which springs to mind is that of finding something by making an experiment. Indeed. The experiment is the key.

TURING:
Sir. I am just trying to follow. Are you saying that we should be more invested in the lack of mathematical fact?

WITTGENSTEIN:
Well what is "mathematical fact?" Discovery brings to mind, the uncovering of something buried: we imagine objective mathematical truths exist, and are stumbled upon through trial and error. I would instead say that the initial invention of a mathematical method is an experiment, which devises a rule by which we measure its future application.

ALBERT:
Well I have no idea what that means.

WITTGENSTEIN:
Jesus Albert, you're at Cambridge. I propose a divestment from formalistic methods. We did not discover math. We invented it. We have wrung the fibers and extracted the dew. Now. I know in this class we have some who would be fans of formalism. Turing. Why don't you stand up and introduce yourself. You're new to Cambridge.

(TURING rises to his feet and steps center.)

TURING:
Well. My name is Alan Turing. I am a student here at Cambridge.

WITTGENSTEIN:
Turing you have a doctorate you can skip the pleasantries. Give us a picture of who you are.

TURING:
(throughout the following he becomes more and more awkward. Talking in front of groups does not come easy to him.)

Yes, I have a doctorate. Princeton in America. I studied Systems of Logic based on Ordinals. I came to the conclusion that in all systems with finite sets of axioms, an exclusive-or condition applies to expressive power and provability; i.e. one can have power and no proof, or proof and no power, but not both.

WITTGENSTEIN:
Yes Turing we know. But who ARE you. Already, this is a great example of the limits of formalism. We know you, yet we do not understand you.

TURING:
I-well I was born in June of 1912. I was well educated. When I was thirteen I moved to Sherborne School. Actually, the first day of term was when Britain had the General Strike in 1926. I rode my bike to school. 97 kilometers to get there. But I wanted to learn! I needed to. Even then.

I then went to Kings College, where I would eventually publish On Computable Numbers. I have some spare copies if anyone would like to read.

GEORGE:
(with a leer on his face)
Any time for girls in all this?

TURING:
I chose to have my studies come first. I have never been one for close relationships. Except Christopher.

GEORGE:
Christopher?

TURING:
Christopher Morcom. Deceased age 19. Bovine tuberculosis. He was my school friend at Sherborne. And a friend. A good friend. Very good.

(Beat)

I do not think I have anything else to say.

WITTGENSTEIN:
Well. That feels like enough. Boys, keep a close eye on Turing. He's a smart one. I had a surprise for you all, and then I left it in a separate lecture hall. I'll be back and then we can continue!

(WITTGENSTEIN exits)

GEORGE:
Good friend, eh?

TURING:
I beg your pardon?

GEORGE:
Good friends, you and Christopher?

CHARLES:
George, lay off him.

GEORGE:
I'm just trying to get more information on our new classmate Charlie. Just filling in some gaps.

CHARLES:
Just advising caution.

TURING:
Yes, we were good friends.

GEORGE:
I've heard otherwise.

TURING:
What have you heard about my personal life George.

GEORGE:
That you're a poof.

TURING:

I do not know what you mean.

GEORGE:

I think you do. I think in between all your crunching and calculations you had time to do a little something on the side. A little something that you don’t want to talk about.

TURING:

I..I have to go.

(TURING grabs his belongings and sprints out of the room).