

Anus Mirabilis

PROLOGUE (2015)

FADE IN:

EXT. AN EMPTY RURAL U.S. HIGHWAY EXCEPT FOR A LONE CAR

A young, college-aged, dirty blonde, white male (MISHA) with a baseball cap (with a university logo of some sort or some made up university) on backwards is peering out of an open car window. Next to him is a young, dark brown-haired, bespectacled, college-aged, Latino male (ARTURO) driving the car. Chiptune music is playing on the car stereo system. As the car drives down the road, MISHA's hat flies off of his head. MISHA turns down the stereo system.

MISHA

Hey Arturo, can you stop the car?

ARTURO

Why? Do you have to pee?

MISHA

That and my hat just flew off my head. I want to go get it back.

ARTURO

Sure, Misha. I'll turn the car around for you too.

ARTURO stops the car, turns the car around to near where the hat is. MISHA gets out and jogs to pick up his hat. He dusts off the hat and puts it securely back on his head with the lid facing backwards. He runs back to the side of the car and begins to unzip his shorts to take a leak.

The title text ANUS MIRABILIS pops up on a monochrome background.

The opening credits roll.

FADE TO BLACK.

ACT ONE: THE GÖDEL LETTER (1938)

FADE IN:

EXT. A CITY STREET NEAR PRINCETON UNIVERSITY

A middle-aged balding man is driving down a street close to Princeton University in a blue car while reading a book before swerving and crashing into a tree on the side of the road. The man gets out of the car unscathed but begins to complain in German...

MAN (VON NEUMANN)
Argh! Not again!

EXT. OUTSIDE THE INSTITUTE OF ADVANCED STUDY AT PRINCETON

Long shot of the Institute during the Fall. People are walking by dressed in late 1930s academic attire. Leaves are falling.

(The dialogue in this act is spoken in German with English subtitles since the major characters all spoke German)

VON NEUMANN VOICEOVER
Guten Tag, Stanislaw.

INT. INSIDE THE INSTITUTE OF ADVANCED STUDY AT PRINCETON

STANISLAW ULAM is talking to a visiting mathematician named OSKAR MORTGENSTERN at Princeton's Institute for Advanced Study while JOHN VON NEUMANN approaches STANISLAW ULAM from the side. STANISLAW ULAM hears and spots VON NEUMANN.

STANISLAW ULAM
Ah, well if it isn't the good old John von Neumann. Oskar, let me introduce you to Professor von Neumann.

OSKAR
Professor von Neumann! I've heard so much about you even back at home! I've read your current framework for generalizing games and it is quite intriguing. I've even written some notes on it myself.

VON NEUMANN
Why thank you.

STANISLAW ULAM

Johnny, this is Professor Oskar
Mortgenstern from Vienna; he
teaches economics with an emphasis
in mathematics.

VON NEUMANN

Economics with an emphasis in
mathematics? It's the only way to
teach the subject nowadays. Nice
to meet you Oskar and it's
refreshing speak to you in German
as well! Speaking English can get a
bit stale around here.

VON NEUMANN extends his hand to shake OSKAR's hand. While
looking at STANISLAW, VON NEUMANN says...

VON NEUMANN (CONT'D)

Stanislaw, no need to be overly
formal. Oskar, you can call me
Johnny. Say, how long have you been
here?

OSKAR

I arrived in the wee hours of last
Tuesday morning--5 am to be exact--
in New York.

Von Neumann Looks at his watch

VON NEUMANN

so 442,531 seconds starting...
now.

OSKAR

The human calculator von Neumann!
The rumors are true! It really is
you! Although I have no way of
verifying if that figure is
correct, I'll take your word for
it.

VON NEUMANN

Oh, it's correct alright. Make a
note of that number somewhere and
corroborate it later when you have
pencil and paper. Anyways, I'm
glad you got here safe and sound.
I was recently in a wreck getting
to the institute. I was proceeding
down the road.

(MORE)

VON NEUMANN (CONT'D)

The trees on the right were passing me in orderly fashion at 40 miles per hour when suddenly one of them stepped in my path.

OSKAR continues to shake hands excitedly before letting go...

OSKAR

Dear lord! Well, I'm glad that you're fine. Now beg my pardon, not to downplay your recent collision, but here, I have a mathematical riddle for you Professor von Neumann so I can write to my friends back at home and prove to them that it really is you.

VON NEUMANN

Oh, I love a good math riddle, shoot.

OSKAR

A famous mathematical puzzle problem involves the following: two trains on the same track begin a mile apart and head toward each other at 60 miles an hour. A fly on one train flies at 120 miles an hour to the other train, and when it lands there, it flies back to the other train, and so on, flying back and forth between the two trains until it gets squashed in the middle. How far does the fly travel?

VON NEUMANN

Hm, how about... one mile.

OSKAR

That was pretty quick. You know, Professor von Neumann, most people don't realize that the problem is actually quite easy to figure out: the trains meet in half a minute, and the fly can travel 1 mile in half a minute. They think they have to add up the infinite series to find out how far the fly travels!

VON NEUMANN

...But that's how I did it!

STANISLAW ULAM

You'll have to excuse us Oskar, but Johnny and I are scheduled to discuss a recent lecture. I'll follow up with you later today.

OSKAR

No worries. Again, nice to meet you Professor--

VON NEUMANN

Eh, call me Johnny remember.

OSKAR

Ah, yes, Johnny. I'm sure our paths will cross again while I'm at the institute and I look forward to working with you soon.

VON NEUMANN

Likewise.

STANISLAW and VON NEUMANN begin walking in tandem towards a door.

STANISLAW ULAM

Now, I missed your previous lectures so you'll have to jog my memory...

VON NEUMANN

That's fine. As I broadly discussed in my last two lectures, I would like to return to the subject of the specific automata which we know. Let's compare artificial automata, specifically computing machines, with natural automata, particularly the human nervous system. The upper limits on acceptable probability of error in individual operations and compensation through checking and self-correcting features...

VON NEUMANN abruptly falls due to his weakening from an undiagnosed and unknown developing cancer. STANISLAW ULAM reaches for VON NEUMANN and holds him in his arms while lightly slapping his face to wake him up.

STANISLAW ULAM

Jon! Are you okay? Jon! Johnny!
(Looking at others) Get a medic
someone! Johnny answer me!

EXT. PRINCETON HOSPITAL

Long shot of the Princeton hospital during the Fall.

INT. HOSPITAL ROOM

VON NEUMANN is on a hospital bed recovering from his fall. OSKAR MORGENSTERN and STANISLAW ULAM are in the hospital room when VON NEUMANN awakens.

OSKAR MORGENSTERN

Ah, he's waking up!

VON NEUMANN

What, what happened? Am I at the hospital?

STANISLAW ULAM

Johnny boy, yes, you're at the Princeton hospital. You had a bout of weakness and had a minor fall. Nothing terrible though. After a few hours and running some tests, the doctors haven't detected any anomalies in your system, so you're alright. If anything, it was probably due to that collision you had earlier.

VON NEUMANN

Ah, well that's a relief. While you're here Stanislaw, let me finish descanting my lecture to you.

STANISLAW ULAM

I'm all ears Johnny.

FADE TO BLACK.

FADE IN:

Blank screen. The year 1955 flashes on screen before fading out.

EXT. OUTSIDE THE INSTITUTE OF ADVANCED STUDY AT PRINCETON

Long shot of the Institute during the early Spring. People are walking by dressed in 1950s academic attire. Birds are chirping. Two men in particular are walking by, KURT GÖDEL and ALBERT EINSTEIN.

EINSTEIN

You know Gödel, I particularly like our walks. I told Morgenstern once that I go to the IAS just for the privilege of walking home with you.

GÖDEL

I'm flattered Albert. Thank you. Now to business. I'm drafting a letter to von Neumann about a mathematical problem I'm having. I might send it to him in a few months once I've mulled over it a bit longer and worked out the technical details. It pertains to provability in mathematics.

EINSTEIN

Oh von Neumann. I remember he would keep playing his music so loudly in the office at the IAS. It interfered with my work. And he kept doing it even after I insisted that he stop. But he does have a sharp mind, and I trust your superior mathematical judgement that if anybody can solve it, he can. How is he doing by the way? I haven't seen or heard of him lately.

GÖDEL

From what I hear, he is on to fulfill his role as the Atomic Energy Commissioner in Washington, D.C. He does not wish to return to the institute and is considering other positions elsewhere after his time in the Capitol is done.

EINSTEIN

Well, tell him I wish him luck in all of his endeavors then. Say, would you like to accompany me to the Princeton Art Museum tonight Gödel? They're showing a new painting exhibition on Russian Suprematism and I hear that it's quite good.

GÖDEL

Sure Albert. I'd love to.

EINSTEIN
Fantastic.

EXT. PRINCETON ART MUSEUM

Long shot of the Princeton Art Museum during the evening.

INT. PRINCETON ART MUSEUM

EINSTEIN AND GÖDEL are looking at a suprematist painting while EINSTEIN sips on a glass of champagne.

EINSTEIN
What say you Gödel of the utopian impulse in art?

GÖDEL
It is well-intentioned, but it is naïvely misplaced.

EINSTEIN
Do you think so?

GÖDEL
I do. Allow me to explain. While I don't believe in empirical science--I only believe in a priori truth, a better direction for the utopia would actually be through the sciences. The letter I'm writing to von Neumann touches upon this notion. Automating the mathematician and eventually the human being, if it actually is a Turing machine as Alan Turing suggests, is a much more sensible utopian gesture. Automating the mundane and routine is a stab against the specter of capitalism that engulfs us all. Art, as Hegel mentions, can show us this ideal through beauty and form, and through that--unbridled freedom. But it is severely limited by the fact that it is only an ideal, a platonic form, and while we can strive towards this ideal through its guidance, art can only provide a foundation. It does not provide us with the necessary tools to build a utopia.

EINSTEIN

Perhaps you are right Gödel. You are right about so many things. But I must say that these paintings at least are quite sublime and stunning to look at. They spark my imagination. I feel yet another year of miracles building up inside of me, hehehe.

GÖDEL

You never cease to amuse Albert.

EINSTEIN takes a sip from his glass and takes a closer look at a painting.

FADE TO BLACK.

FADE IN:

The year 1956 appears on screen before fading out and another onscreen text appears: EINSTEIN has died. VON NEUMANN is being transported to the hospital due to his developing cancer. Meanwhile at the GÖDEL residence...

INT. GÖDEL'S KITCHEN

Cut to ADELE, GÖDEL's wife, preparing KURT GÖDEL's supper: a sort of pudding that looks like baby food.

INT. KURT GÖDEL'S STUDY

Cut to KURT GÖDEL in his study room. There's a knock on the door. It is GÖDEL's wife ADELE with supper.

ADELE

Kurt, I brought you your supper.

GÖDEL

Thank you Adele. Place it on my study over there please.

After pausing for a bit, GÖDEL sits down at his desk and begins writing in German.

GÖDEL VOICEOVER

Dear Mr. von Neumann:
With the greatest sorrow I have learned of your illness. The news came to me as quite unexpected.

(MORE)

GÖDEL VOICEOVER (CONT'D)

Morgenstern already last summer told me a bout of weakness you once had, but at that time he thought that this was not of any greater significance.

INT. WALTER REED ARMY MEDICAL CENTER

Von Neumann is being rushed to the hospital on a stretcher while the Gödel voiceover runs its course.

GÖDEL VOICEOVER

As I hear, in the last months you have undergone a radical treatment and I am happy that this treatment was successful as desired, and that you are now doing better. I hope and wish for you that your condition will soon improve even more and that the newest medical discoveries, if possible will lead to a complete recovery.

Von Neumann enters the hospital on a stretcher and is transported to the emergency room.

Since you now, as I hear, are feeling stronger, I would like to allow myself to write you about a mathematical problem, of which your opinion would very much interest me: One can obviously easily construct a Turing machine, which for every formula F in first order predicate logic and every natural number n , allows one to decide if there is a proof of F of length n . Let $\Psi(F,n)$ be the number of steps the machine requires for this and let $\Phi(n) = \max_F \Psi(F,n)$. The question is how fast $\Phi(n)$ grows for an optimal machine. One can show that $\Phi(n) \geq k \cdot n$. If there really were a machine with $\Phi(n) \sim k \cdot n$ (or even $\sim k \cdot n^2$), this would have consequences of the greatest importance.

Doctors begin injecting fluids into VON NEUMANN's IV.

(MORE)

GÖDEL VOICEOVER (CONT'D)

Namely, it would obviously mean that in spite of the undecidability of the Entscheidungsproblem, the mental work of a mathematician concerning Yes-or-No questions could be completely replaced by a machine. After all, one would simply have to choose the natural number n so large that when the machine does not deliver a result, it makes no sense to think more about the problem. Now it seems to me, however, to be completely within the realm of possibility that $\Phi(n)$ grows that slowly. Since it seems that $\Phi(n) \geq k \cdot n$ is the only estimation which one can obtain by a generalization of the proof of the undecidability of the Entscheidungsproblem and after all $\Phi(n) \sim k \cdot n$ only means that the number of steps as opposed to trial and error can be reduced from N to $\log N$.

Doctors are writing notes on their clipboards.

However, such strong reductions appear in other finite problems, for example in the computation of the quadratic residue symbol using repeated application of the law of reciprocity. It would be interesting to know, for instance, the situation concerning the determination of primality of a number and how strongly in general the number of steps in finite combinatorial problems can be reduced with respect to simple exhaustive search.

Nurses give shots to VON NEUMANN.

I do not know if you have heard that "Post's problem", whether there are degrees of unsolvability among problems of the form $(\exists y) \Phi(y, x)$, where Φ is recursive, has been solved in the positive sense by a very young man by the name of Richard Friedberg. The solution is very elegant.

(MORE)

GÖDEL VOICEOVER (CONT'D)

Unfortunately, Friedberg does not intend to study mathematics, but rather medicine (apparently under the influence of his father). By the way, what do you think of the attempts to build the foundations of analysis on ramified type theory, which have recently gained momentum? You are probably aware that Paul Lorenzen has pushed ahead with this approach to the theory of Lebesgue measure. However, I believe that in important parts of analysis non-eliminable impredicative proof methods do appear. I would be very happy to hear something from you personally. Please let me know if there is something that I can do for you. With my best greetings and wishes, as well to your wife.

Cut to GÖDEL sitting at his desk still writing.

Sincerely yours,
Kurt Gödel
P.S. I heartily congratulate you on the award that the American government has given to you.

VON NEUMANN is sitting in his bed with Faust in his hands and begins to address his brother who is next to his bed...

VON NEUMANN
Brother, I have something to tell you.

The brother leans in closer toward VON NEUMANN to hear him better.

BROTHER
Yes Johnny?

VON NEUMANN
"Everything transitory is but an image."
(Faust quote)

In a dramatic fit, VON NEUMANN begins to screams on his death bed.

BROTHER
John! John!

His brother runs to call a doctor. Close up on VON NEUMANN seizing before dying. The Windows Blue Screen of Death (BSOD) fills the screen with an accompanying error beep sound.

FADE TO BLACK.

ACT TWO: MICHAELAS10 (2010)

FADE IN:

INT. MISHA'S ROOM

Mid-close up of young white 17-year-old shirtless (stomach and up) standing in his bedroom with non-diegetic Bach music playing in the background.

MISHA'S VOICEOVER

Call me Misha, but I go by Michaelas10 online. If that username is taken, I use the moniker Michaelas10sk8 or Michaelas11. It should be noted, though, that I prefer to go by Michaelas10 as I go by that on Newgrounds and Reddit, the main websites I peruse. I won't go into any further details about myself since I find anonymity a virtue; however, I will tell you this: I am not American.

We follow MISHA out of his room upstairs and onto the main floor where he enters the kitchen and and snacks on some falafel on the table and a carton of chocolate milk.

INT. KITCHEN

MISHA'S VOICEOVER

I am a 17-year-old Russian-Israeli boy stranded in the boondocks of Americana: where the falafel is dry, the chocolate milk is served in a carton instead of a pouch, and everyone speaks English or, which is on the uptick, Spanish rather than my baroque Hebrew and Russian. America is also where I hardly have any friends and everybody makes fun of me. What am I doing here? Well, my parents moved to the States because my Dad got a job with the EPA here concerning water monitoring. And yes, they teach English in Israel, which is why I'm speaking to you in said language.

(MORE)

MISHA'S VOICEOVER (CONT'D)

I've been in the U.S. for a while already, three years to be exact, so I have my idioms down pat. I'm also a fast learner; that helped a bit.

INT. LIVING ROOM

MISHA pauses in front of his mom's drawer in the living room, opens the drawer, and finds a box of cigarettes and two lighters. He opens the box and takes a cigarette and places the box back into the drawer but forgets to close the drawer.

MISHA'S VOICEOVER

It's the weekend; therefore, in an effort to boost my coolness factor, I've decided to practice smoking. I've found that the shower in my house is the optimal place to do so and Mom and Dad won't miss a few purloined cigs.

MISHA starts walking back upstairs to the bathroom.

While I previously held on to the doctrine of nihilism, I recently came across the works of Arthur Schopenhauer. I'll admit, his writings are dense and oftentimes circular, but he is what philosophers call an idealist, a label he shares with others such as Plato and Berkeley. The gist of being an idealist consists of believing that reality is a curtain -- that there is a noumenon beyond our phenomenon and as I have nothing better to do, I've made it my goal to break through this so-called fabric of reality and enter the annals of history.

INT. BATHROOM

MISHA enters the bathroom, closes the door, enters the shower, parts shower curtains, and turns on the shower. He then lights the cigarette away from the shower head stream and takes a couple of puffs of the cigarette.

A few moments later...

INT. LIVING ROOM

MISHA'S MOM
 (She speaks in Russian)
 Misha, I'm home. Are you in the
 shower?

INT. BATHROOM

Psycho scream in the background. MISHA fumbles with the
 cigarette in the shower.

MISHA
 coff coff DAAAAAA!

MISHA'S MOM
 Horrorshow (Clockwork orange
 reference which means "good"). You
 hadn't showered in a while.
 Remember to take out the kitchen
 trash.

MISHA
 DAAAAA!

INT. LIVING ROOM

MISHA'S MOM notices that the drawer in the living room where
 she stores her cigarettes is open.

MISHA'S MOM
 Did I leave this open? I shouldn't
 have.

She thinks nothing of it and grabs a cigarette and the
 remaining lighter, closes the drawer, and opens the window to
 the living room and lights the cigarette with the lighter.
 While she smokes, a cut back to MISHA...

INT. BATHROOM

MISHA'S VOICE OVER
 You know, our brain isn't special
 on a physical level. There's
 nothing miraculous or magical
 occurring inside of it, it is only
 so complex to the point of
 obfuscating any prediction of its
 outcome, also why you feel you have
 no free will. Awareness doesn't
 exist.

MISHA finishes putting cigarette out with shower water after taking a couple more puffs.

MISHA'S VOICE OVER (CONT'D)

We act upon our stimuli just as naturally and predictably as a sodium hydride capsule would produce hydrogen when dropped in water. Take my mom for instance. There's nothing in science that can currently disprove that she isn't a zombie. For all I know my mom could be a fruit, and my sister a vegetable.

MISHA gets out of the shower; the camera follows MISHA put on a towel and head to his room where he puts on shorts and a t-shirt and goes to the kitchen to take out the trash outside. Afterwards, he comes back in to his room and starts playing video games.

INT. BEDROOM

MISHA'S VOICE OVER

At the most basic level, every action we make is the result of our external conditions, which in turn affect our internal ones such as our mood and genetics. By knowing every single factor that could affect a person, it is theoretically possible to predict their behavior with near complete accuracy. We are nothing but carbon-made bags of water, made of approximately predictable atoms just like everything that surrounds us. The only thing we really differ by is our immense complexity and the difficulty of being able to tell what are the causes behind our actions. The concepts of free-will and justice stem from lack of knowledge of these causes, kind of like a character programmed to do your bidding in a video game.

MISHA stops playing video games.

EXT. A LOCAL HIGH SCHOOL BUILDING PARKING LOT

MISHA gets off the bus and gives a resigned sigh before entering the building.

INT. HIGH SCHOOL HALLWAY...

MISHA is walking the opposite direction of a school bully who rams his shoulder into MISHA while MISHA is in the hallway.

BULLY
Move it, Pussy!

MISHA
Jeez!!!

MISHA turns around to confront the bully.

MISHA (CONT'D)
YES I'M A PUSSY!
A HUGE GAPING VAGINA HA HA HA!
What, you gonna beat me up?
GO AHEAD!
What, you gonna murder me?
DO IT!

The bully gives MISHA a nonplussed look before punching him in the face.

Close up on school bell. School bell rings.

INT. HIGH SCHOOL CLASSROOM

TEACHER
Okay class, today we're going to talk about the college placement exam called the SAT. Now I know that college isn't for all of you, but regardless of your motivations, I recommend preparing for this exam as it does carry a heavy weight in consideration for whether you will be accepted by your colleges of choice. I don't mean to lacerate you because you can take the exam as many times as you like, so if you butcher your first attempt, you can sign up and take the SAT all over again if your parents' pockets are deep enough, and albeit with different questions.

(MORE)

TEACHER (CONT'D)

As preparation, I've brought some sample exams for you to practice with. The questions on these exams emulate the increasing difficulty of the real SAT. As I hand them out, make sure your pencils are sharpened as you're only allowed to use a number 2 pencil. No pens. I repeat, no pens. There are three sections: Reading, Math, and Writing, including an essay portion. You may bring a calculator for the math section but you'll soon notice that most problems can be solved more easily without a one. Any questions? No? Good. We'll get started on some practice questions then as our time is short.

INT. COUNSELOR'S OFFICE

MISHA enters the counselor's office.

MISHA

Ms. Escher, I am sitting before you today, because I am here to declare that I want to go to MIT or Oxford. And you're going to help me. Hear me out first... Hear me out first. I've been dutifully preparing for the SAT ever since I first heard of its existence a little over a year ago. I'll admit, I haven't been the greatest student initially...

MS. ESCHER

Yeah, pulling up your record, you got Cs in many of your classes when you first emigrated here, but you've come a long way and you've pulled your act together. You've even joined the junior varsity fencing team, hehe. How's that going?

INT. FENCING ROOM

Cut to MISHA in the fencing room. He is in fencing attire making a failed attempt at fencing.

MISHA

It's going well. Thank you for asking.

INT. COUNSELOR'S OFFICE

MS. ESCHER

Anyway, a high SAT score will blow everyone out of the water.

MISHA

Yes! I agree. This is especially necessary if I want to study theoretical physics, the field I believe holds the most water for breaking through the fabric of reality, at a high ranking university.

MS. ESCHER

Breaking through the fabric of reality, eh? I haven't heard that one before from a student. But let's be realistic here. Well, you should consider a state school. It's cheaper. Maybe not our flagship university either. That's a reach, but somewhere a little more... breathable for you. That doesn't preclude you from the schools you mentioned. And there's always graduate school... if you make it that far. It's easier to get into your dream school for graduate school if you work hard during your undergraduate career, not to mention that there's more funding available for graduates students. Often times, you'll find that they receive full funding with a stipend with small teaching obligations. But also, remember that you don't want to miss the big things in life. As you progress through life, you may realized that you prioritize intellectual achievements far less than you initially had and start focusing on social achievements, such as starting a family or assisting others in completing their own goals.

(MORE)

MS. ESCHER (CONT'D)

Now none of these are mutually exclusive, but it is good to keep in the back of your mind.

MISHA

I see. I will make it to graduate school, don't worry. Also, Ms. Escher, do you ever feel like you were born in the wrong century?

MS. ESCHER

I don't have time for existential talk right now Michael. But yes, sometimes I do. Maybe 100 years from now when the robots have automated my job and I can pick up a check for doing what I love without guilt. Or better yet, I long for an era in which race and gender don't hinder people in the slightest bit... where the heteronormative patriarchal white-supremacist paradigm has been smashed and everyone has equal access to a solid, well-rounded education.

MISHA gives a sideways glance at the floor in a seemingly admission of guilt.

MS. ESCHER (CONT'D)

Now if you don't have any other counseling-related questions, move along. I'm under several deadlines today and I still have other students to see. Before you go though, I'm not going to ask what happened to your eye since you didn't bring it up, but there's ice in the teacher's lounge. Put it in a plastic glove and apply it to your eye. It'll help with the swelling.

MISHA

Thanks Ms. Escher.

MS. ESCHER

No problem Michael. Now move along.

SAT TEST DAY FLASHES ONSCREEN

INT. SAT TESTING ROOM

MISHA is sitting down with an SAT booklet on his desk in a room full of students doing the same thing.

PROCTOR

Okay, you may now sign your booklet.

MISHA signs his name in big letters. He breaks his pencil, then he uses his second pencil.

After a while...

PROCTOR (CONT'D)

You may begin.

MISHA flips to the last page of the exam section.

Show an example of an SAT question:

Two trains on the same track begin a mile apart and head towards each other at 60 miles an hour. A fly on one train flies at 120 mph to the other train, and when it lands there, it flies back to the other train, and so on, flying back and forth between the two trains until it gets squashed in the middle. How far does the fly travel?

MISHA says in a hushed voice...

MISHA

Piece of cake: One mile.

PROCTOR

Shhhh. No talking!

After hearing the command from the proctor, MISHA clenches his teeth and gives a guilty look.

A FEW WEEKS LATER...

EXT. MISHA'S HOUSE WITH MAILBOX IN FOCUS.

MISHA gets off the bus and heads to the mailbox. He opens an envelope addressed to him which contains his SAT score.

MISHA

2230 - not bad. Not bad at all! I
HAVE A CHANCE AT COLLEGE!!!

MISHA begins running to the house shouting with the letter in
his hand...

MISHA (CONT'D)

(In Russian)

MAMA! MAMA! I HAVE A CHANCE AT
COLLEGE!!

FADE TO BLACK.

ACT THREE: RADICAL MYCOLOGY (2015)

FADE IN:

INT. PITÁGORAS BURRITO SHOP

MISHA is hunched over a laptop watching a clip of Israeli cinema for his assignment at a small table in a corner of the burrito shop. A half-eaten burrito, some nacho chips, and an horchata lie to the side of the computer. He has shorter hair than in high school.

MISHA'S VOICE OVER

I'm currently taking a class on Israeli cinema here in college because it fills the arts general education requirement. Yeah. I saved it for my last semester so I could get my physics class ducks in a row. The cinema class is a little boring and doesn't exactly push me further to the "Truth," so when I have to do the forum assignments I just get drunk and babble on about whatever is on my mind. Grade-wise it seems to be working. Luckily it's almost the end of the semester and this is my last assignment of undergrad before exams.

EXT. OUTSIDE THE PITÁGORAS BURRITO SHOP

MISHA'S VOICE OVER

Right now I'm at Pitágoras, the famous burrito joint in town. Everyone says the bean burrito is to die for. It's funny because Pythagoras actually did die of a bean allergy. Hehehe. Not that allergies are funny. It's just an ironic name.

INT. PITÁGORAS BURRITO SHOP

MISHA'S VOICE OVER

Anyway, it's here that I met Arturo, who turned out to be one of those fabled cinema majors.

(MORE)

MISHA'S VOICE OVER (CONT'D)

He's a year below me in college but he's relatively well known on campus for his video art. In his latest piece he tapped into John Steinbeck and Henri Bergson to create a neorealist single shot film about grape pickers --- Grapes of Wrath reference anyone? Don't worry, I didn't get it either until he told me. So, while I wouldn't exactly say that Arturo influences me or furthers my understanding in a positive or substantial way, he does end up functioning as an unexpected stylized silo for my thoughts. I'm also having relationship problems on numerous fronts and hopefully Arturo can serve as a disinterested party which provides assistance - a psychoanalyst of sorts.

ARTURO is walking in to the shop while talking to a couple of students at Pitágoras, the burrito shop.

ARTURO

And I told him, the French had it right! There's nothing to learn from wartime German cinema except fascism and umlats!

There is laughter from the couple.

MISHA'S VOICE OVER

Arturo is somewhat of a Kantian. He believes in the categorical imperative as well as believing that while there is an idealist plane, we cannot empirically access it in our current states, which is the opposite of what I believe. He also has an odd and academic sense of humor, kind of like me!

Misha stands up to greet ARTURO.

MISHA

Hey Arturo!

ARTURO

Hey Misha! Wow, considering you're pretty thin, has anybody ever told you that you have a very callipygian behind.

MISHA'S VOICE OVER

Arturo also has a crush on me. Not that there's anything wrong with that. (Seinfeld reference)

MISHA

I know. I've recently been doing a lot of squats, but its also due to good genes.

ARTURO

Ah, like the year 1666 then.

MISHA

What? Why?

ARTURO

You're a physics major and you don't know the significance of the year 1666? It's the year Newton discovered the law of gravity which allowed him to extrapolate the trajectory of the planets. It was his "anus" mirabilis. Do you get the joke now?

MISHA

Yeah. Yeah, that was a very queer joke. I never would have gotten that.

ARTURO

I read it on Wikipedia, so you know it's true (said facetiously with finger under his mouth).

MISHA'S VOICEOVER:

I've told him numerous times that I'm not gay but he knows how to play along. It should be noted though that Arturo does makes a great wingman.

MISHA

Okay guru Arturo, listen to my drama for a bit if you don't mind.

ARTURO

Sure. You guys can go and order your food. I'm going to talk to my friend Misha for a bit.

The couple goes to the register to order their food. ARTURO sits down vis-à-vis MISHA.

ARTURO (CONT'D)

So, what's up?

MISHA

I'm having girlfriend problems again. Koharu seems to be ignoring me lately. It might be because she's been super busy or it may be because I may have been *importuning* her without realizing it.

ARTURO

Which one is Koharu again?

MISHA

Koharu Yoshi. I've had flings with other girls in the past...

INT. MISHA'S DORMROOM

MISHA is lying supine on his bed while an Asian girl (not Koharu) is having sex with him. Both of them are naked. MISHA is breathing hard while the girl is moaning. Then the shot of the girl is cut to a black girl, and then a white girl. Finally, the shot is cut to an Indian girl.

INT. PITÁGORAS

MISHA

...but Koharu is my first real girlfriend, I think. If I can call her that... it's not official yet.

ARTURO

Ah, Koharu Yoshi. She's the first-year drummer of Metal Gear Punk, the three-piece J-Punk rock band, and arguably the hottest young music ensemble of the year at the university. Unfortunately for you Misha, your musical lacuna prevented you from knowing this fact. Right?

MISHA

You are correct. She's the one I'm kind of dating right now--the one that I met at the math tutoring center. I made a G.E.B. joke and she laughed. And that's right.

(MORE)

MISHA (CONT'D)

I didn't know she was a part of Metal Gear Punk until recently.

ARTURO

G.E.B.?

MISHA

Godel, Escher, Bach. It's a book on recursion and math and art and stuff. Surprisingly, she's read it too.

ARTURO

Oh. Sounds like a book I'd enjoy reading.

MISHA.

Yeah, you'd probably like it. It's a commitment to read though. Anyway, Koharu and I got along and we chose to see each other again. And like we've both said already, she's also in a band! According to the reviews in the school newspaper, apparently they're really good. And she invited me to see her play! This is my last chance to make a good impression probably. Do you want to come and keep me company while she's onstage? Also what should I tell her next time I see her? I'm a noob when it comes to this relationship stuff. And, one more thing. I read Plato's Symposium but didn't glean any insights that could help me.

ARTURO

Well tell her that you want to take it slow and that you appreciate the time she's spent with you. You two don't always gel from what I recall you telling me last time, but that's something you're willing to work on. I mean that's what love is right? Work? Also, I'd love to come and see her play. When is she performing?

MISHA

Uh, tonight. I know it's short notice, but would that be a problem?

ARTURO

Ah, perfect. It's no problem at all. I was only expecting to cry my single self to sleep tonight.

INT. MUSIC VENUE WHERE METAL GEAR PUNK IS PLAYING

KOHARU is the drummer of the all-female band Metal Gear Punk. They're playing Japanese alternative rock songs on stage in a dark, grungy, yet spacious room with a laser light show. MISHA and ARTURO are in the pit.

SINGER

Okay everyone. Thanks for coming out and listening to us play. We have one last song before we let the next act come up and perform. It's called...

EXT. OUTSIDE THE CONCERT VENUE

Outside of the concert venue are two college-aged men smoking and talking about their classes. One can faintly hear Metal Gear Punk playing inside the venue.

STUDENT 1

Man, this intro to philosophy class is kicking my ass. We recently started covering object-oriented ontology and it doesn't make any sense. Why are we giving autonomy to objects when people hardly have autonomy themselves? I "Kant" do this anymore.

STUDENT 2

Ha...

STUDENT 2 take a puff of his cigarette.

STUDENT 2 (CONT'D)

...that's nothing compared to my physics class. There's actual math in it and I haven't had a math class since high school. I knew I shouldn't have waited to take it my senior year.

STUDENT 1

Yeah, you're right. Math sucks balls. Thank god we're not engineering majors.

STUDENT 2

But engineers do make big bucks.

STUDENT 1

Yeah... Fuck, I dunno what I'm going to do with my English degree to be honest. I thought I'd be the next Jonathan Franzen or David Foster Wallace, sans the depression, but I'm not witty enough. Maybe I should try my hand at photography and be the next Alec Soth, you know?

STUDENT 2

I'm in the same boat. Comparative literature isn't much better. But hey, at least I have passable French, however much good that'll do. I should have taken something more practical like Spanish or Chinese, then I could be a translator or an ambassador. Now our only options are basically law school or teaching. Thank you job market. Thank you robots automating everything worthwhile, like straight out of "Player Piano."

STUDENT 1

Nice Vonnegut reference. And oh God, law schoool. Have you taken the LSAT yet?

STUDENT 2

Not yet. I shudder at the thought of taking yet another standardized exam.

STUDENT 1

Me too. Let's go back into the concert room before we do get all depressed and shit.

The duo put out their cigarettes and go back inside the concert room.

At the end of the concert MISHA walks up to KOHARU kisses her and says inaudible things to her from ARTURO's perspective (he is in the pit). MISHA walks back to ARTURO with a large grin on his face.

MISHA

Arturo it worked! I told her what you said even quoting parts of your comments and she completely understood! She felt like what we had wasn't serious enough. She wasn't willing to take it that far. And now she even said she likes me more because I understand her emotions with more nuance. She's potentially ready to take our relationship to the next step.

ARTURO

Awesome. We should celebrate this and the end of the year. I'm going to the beach next weekend after finals. I don't know if you want to come. It'd be good for you to get some fresh air, refresh, and leave town for a bit.

MISHA

The beach, yeah, I'd love to come. I haven't been in ages.

ARTURO

Cool, I'll be Walker Evans and you can be James Agee.

MISHA

Whatever, but you have to pick me up from my parents' apartment since the dorms will be closed by then.

ARTURO

No problem. They live in town right?

MISHA

Yeah.

EXT. ARTURO'S CAR OUTSIDE OF MISHA'S APARTMENT

While MISHA is pulling up to the car, ARTURO sticks "Alabama Tenant Farmer Wife" photo on his sun visor.

MISHA waves to his mom from the car. ARTURO starts the car with MISHA on board.

MISHA

Who's that?

ARTURO

It's Allie Mae Burroughs by Walker Evans. But this is the version rephotographed by Sherrie Levine, so its one of the pillars of postmodernist photography. I keep her around for intellectual stimulation and good luck.

MISHA

Okay, whatever you say.

ARTURO

Ready?

MISHA makes a gangster sign with his hand.

MISHA

Fool, I was born ready.

ARTURO

Then let's get this show on the road!

As ARTURO and MISHA drive to the beach which is three hours away, they pass fields with field workers picking blueberries, blackberries, and sweet potatoes.

ARTURO and MISHA stop at an outdoor farmer's market (you know, the Latina kind; more like a tianguis). MISHA buys a bag of pinwheel duros with hot sauce. ARTURO takes some pictures with a film camera. ARTURO sees MISHA with the chips and begins to ask...

ARTURO (CONT'D)

Oh Misha, I forgot to ask. Are you hungry?

MISHA

Yeah, actually, I am.

ARTURO

Okay, well, we can go get some tacos from the food truck over here. They can prepare them in a categorically imperatively vegetarian fashion for us.

ARTURO and MISHA walk to the table near the food truck. MISHA has his backpack and takes out a book and starts working out problems. A street vendor is curious of what MISHA's reading.

VENDOR
¿Qué está leyendo?

ARTURO translates

ARTURO
What are you reading?

MISHA
Modern Quantum Mechanics by J.J.
Sakurai.

ARTURO translates

ARTURO
Mecánica cuántica moderna por J.J.
Sakurai.

VENDOR
Oh, que asombroso, física.
(Oh, amazing, physics)

MISHA
You don't have to translate this
Arturo but the author died before
he could finish the book.

ARTURO
Ah, so kind of like Roberto
Bolaño's case with his last novel.

MISHA
I don't know that author but I'll
take your word for it.
Can we get some watermelon before
we leave? It looks really ripe
here from the samples they have
out.

ARTURO
Sure, let me buy some.

ARTURO buys a couple of slices of watermelon from the vendor.
MISHA puts up his book, and then the duo sits down on a bench
and MISHA begins talking to ARTURO...

MISHA
So you have a 66% chance of
surviving a cancer diagnosis after
5 years.

ARTURO
Oh, a 66% chance?

MISHA

So everytime you hear, "Arturo, you have cancer..."

ARTURO

You're more likely to survive...

MISHA

Yeah, barring quantum immortality, it's like playing Russian Roulette with two bullets or something.

ARTURO

Where'd you pick that up? Playing Russian Roulette with two bullets?

MISHA

It's not that hard to make up if you have normal intelligence.

ARTURO

Jeez, sorry for asking.

MISHA

If you're diagnosed with pancreatic cancer, you're fucked because it only has a 6% survival rate. Because the pancreas has no nerves so by the time it shows symptoms, it has spread all over the place. It has already spread to your kidneys, to your lungs, whatever. You're almost definitely going to die. Also, you're almost certainly going to get skin cancer. And you're gonna get.. um... what's the name of that thing in your butt?

ARTURO

What? My butt?

MISHA

Yeah. What's its name?

ARTURO

There's like a crevice, a cavity?

MISHA

The thing that feels good when you rub it and men get checked when they're 40. It's on the tip of my tongue.

ARTURO

Ah, the prostate.

MISHA

Yeah, you're most definitely going to get prostate cancer. But only a very small fraction of prostate cancers and skin cancers are lethal. Maybe 5 to 10%. There are a lot of different kinds of cancers. You're fucked if you get lung cancer but 80% of people who get lung cancer are smokers. And the other 20% of people are second hand smokers or other stuff. So you're probably not going to get it if you're careful.

Pause

MISHA (CONT'D)

You're fucked if you get brain cancer. I think it only has a 10% survival rate.

Pause

MISHA (CONT'D)

The next ones are colon cancer and bowel cancer, also known as stomach cancer. I think they're all about as common. No, lung cancer is more common than the other kinds. But the other kinds put together are more common than lung cancer, I think.

Pause

MISHA (CONT'D)

Strokes, the non silent kinds of strokes, there are two kinds of those, serious ones. There's one in which blood vessels get blocked and there's one in which the blood vessel bursts. The one where the blood vessel gets blocked is called a ischemic stroke. You want to get that one if you were to choose.

ARTURO

How do you remember all this?

MISHA

Because it's easy. Because it's important information. The one that involves a blood vessel bursting is a hemorrhagic stroke. And you do not want to get that type. People who get hemorrhagic stroke, some 60 to 80 % die within 30 days. And if you survive that, you're fucked forever because you're going to have problems with memory, you're going to have slurred speech. You're going to be in terrible moods all the time. You're literally going to want to kill yourself. When you have a stroke that gets you to the hospital, the rest of your life is almost definitely going to be miserable. There's a 50% chance that you're going to have bone problems.

Pause.

Can I talk about the things that you have a one in ten thousand chance of getting? You have a one in ten thousand chance of getting Multiple Sclerosis in the next thirty years. You have a one in ten thousand chance of getting ALS. You know what that does? It kills you in three years. It kills the motor neurons in your brain. Oh yeah, if you get a stroke. There's a small chance that you'll end up in a locked in state. Do you know what that is? You're going to be locked inside your body and not be able to move anything except your eyes. That's the worst. Have you ever heard of the movie, "The Diving Bell and the Butterfly." It's about a guy in a locked in state.

ARTURO

Yeah, it's directed by Julian Schnabel, also known for his large scale paintings. I've heard of the film, but have never seen it.

(MORE)

ARTURO (CONT'D)

I hear it's good though. How did he get out of the locked in state?

MISHA

How did he get out? He didn't. He died.

Pause.

Has this been educational for you Arturo?

ARTURO

Horror Vacui. It's Latin for the fear of emptiness. It's kind of what you have. A fear of the void. I learned that term in one of my art history classes.

MISHA

Well, nature abhors a vacuum!

ARTURO

What?

MISHA

Nothing. It's just an inside joke in physics.

ARTURO

Anyway, let's get back to the car and hope the singularity occurs before WE die.

The duo starts walking back to the car.

MISHA

On that note, here's a positive fun fact. Did you know that the mathematician John von Neumann was the first person to mention the singularity?

ARTURO

Really now?

MISHA

Yeah, in a conversation with Ulam Stanislaw, another mathematician, he mentioned it.

(MORE)

MISHA (CONT'D)

But the singularity might just end up killing us all like grey goo, the same scenario if nanotechnology goes wrong.

The duo gets back into the car and head for the beach.

MISHA (CONT'D)

You know, there's this math problem called the P vs NP problem which Kurt Gödel the famous logician alluded to earlier this century. It's one of the Clay Millennium problems, which means that the solver of the math problem will be awarded one million dollars. Grigori Perelman solved one of the Millennium prize problems, the Poincaré Conjecture, but he rejected the prize money as he did for his Fields Medal, arguably the highest award offered in the math world.

ARTURO

He rejected a million dollars?

MISHA

Yup. He did it for political reasons related to his integrity apparently. But anyway, more exciting was the fact that Gödel wrote a letter explaining the P vs NP problem to John von Neumann, the original singularity guy. However, the letter got lost and Johnny-boy died of bone or pancreatic cancer, it isn't known which one it was exactly. Regardless, he died before he could read the letter and solve the problem!

ARTURO

Wow. What do P and NP stand for?

MISHA

Polynomial and non-polynomial time. They're complexity classes.

(MORE)

MISHA (CONT'D)

The polynomial time complexity class consists of problems that are easy to solve, while the non-polynomial time complexity class includes problems that are difficult to solve but easy to verify. For instance, a problem called the traveling salesman, which is also the name of a movie that goes into fuller detail regarding the implications of a P=NP world, goes like this: Given a list of cities and the distances between each pair of cities, what is the shortest possible route that visits each city and returns to the origin city? It turns out this problem is in the NP class. Easy to verify but difficult to solve.

ARTURO

Gotcha. So are we any closer to solving the P vs NP problem now?

MISHA

Well the people working on the problem won't share their findings, so it's hard to say. Some predict it's going to be 100 years before we solve it. But if we DID solve it in the affirmative, our problems with climate change, overpopulation, renewable energy, and possibly even death itself... would disappear. Algorithms would be able to solve practically everything.

ARTURO

Oh, all this conceptual stuff sounds like something out of a Borges story.

MISHA

Exactly. And its solution potentially exists in this universe. Can you believe that?

ARTURO

I guess. Well what I CAN believe is that we're close to the beach. Can you put on your GPS to get there? My phone is almost dead and I left my charging cable in my backpack.

EXT. THE BEACH.

ARTURO and MISHA walk out to a jetty. Arturo trails slightly behind MISHA.

ARTURO

I've been thinking about this P vs NP problem Misha. What if there is no solution. What if it doesn't get solved? Or if it gets solved in the negative?

MISHA

Well, we're stuck with the reality that we have. We'd probably have to wait for inroads in neuroscience for convincing virtual reality, etc. Actually, a lot of computer scientists don't actually believe $P = NP$; the majority of them don't, not even the famed computer theorist Avi Wigderson at the Institute of Advanced Study at Princeton, at least not in this universe, but I side with Gödel and have faith. Let's keep walking.

NARRATOR

And while he was on the jetty, in the midst of all this math chatter, Arturo realized something. Something he preferred not to happen but nonetheless did thanks to the chemicals in his brain. He didn't have an infatuation with MISHA any longer. He had an intellectual love for the boy. And it was more or less his first love, at least his first serious love.

MISHA

Why are you looking at me like that Arturo?

ARTURO

It's just you look really nice today. Koharu is a lucky girl. And I think I have an idea for my next film.

MISHA

Thanks Arturo. I'm lucky to have her and you as friends.

ARTURO

Let me take a picture of you. The lighting is amazing here.

MISHA

Okay. Go ahead. And send it to me when you're done so I can send it to Koharu. She'll appreciate it, I think.

A FEW WEEKS LATER...

INT. OUTSIDE A UNIVERSITY BUILDING

ARTURO

How are things with you and Koharu?

MISHA

Fine. They're going fine. Why?

ARTURO

Well, I was thinking of nice things you could do for her. Have you cooked her dinner yet?

MISHA

No, I haven't.

ARTURO

Ah, that's Relationship 101: cooking your significant other a nice meal.

MISHA

Well, I'm not a very good cook and I don't want to prepare it in my parents' kitchen either.

ARTURO

Hm, well why don't you invite her to my apartment? You can use my kitchen and I can help you make something.

MISHA

Really? You'd let me do that?

ARTURO

Sure! And I'll get to know the famous Koharu more intimately. I know one of the DJs for the campus radio and she said that Metal Gear Punk's songs are highly requested.

MISHA

Okay. I'll text her and see when she's free.

ARTURO

Cool. I'll text my housemate Ismail. He might want to join since he lives there.

Later...

INT. ARTURO'S DINING ROOM

MISHA

Dinner's ready!

KOHARU

Fantastic! I'm starving.

MISHA walks into the kitchen with a bowl of chopped tomatoes and cucumbers and places it on the table.

MISHA

The first course is my favorite dish: Israeli salad!

ISMAIL

Um excuse me. I know you mean well Misha, but I would like to point out that Israeli salad is a misnomer. It is actually a Palestinian salad. This is a prime example of Israeli imperialism subjugating the culture of the Palestinian people through cuisine.

MISHA gives an awkward stare.

ARTURO

Hehe, Ismail always has to set the record straight. Maybe we should just move on to the pasta now. Misha can you go get the pasta?

MISHA

Sure. Good idea.

MISHA leaves the dining room and goes into the kitchen to get the pasta.

ARTURO

So Koharu, what are you majoring in?

KOHARU

Biomedical engineering.

ARTURO

Oooo, fancy! I bet you get to spend a lot of time at the Makerspace on campus, doing things with 3-D printing and whatnot.

KOHARU

Sure do! I'm actually working on a project right now that is trying to design a prototype to deliver medical apparatuses to low-income serving hospitals and clinics at a dramatically lower price than currently offered.

MISHA walks back into the dining room with the pasta tray and places it on the table.

ARTURO

Oh, the exact opposite of what Misha was doing. What were you helping research again Misha?

MISHA

I was researching Quasiparticle Random Phase Approximation of Inelastic Neutrino-Lead Scattering.

ARTURO

And what good would that do?

MISHA

It'll help us further our understanding of fundamental problems in physics. It's not going to save any lives, at least not in the near future, but it will further human knowledge, which is virtuous in its own right.

ARTURO

Hm. Interesting.

MISHA

I actually had a lot of trouble with my project because it required a lot of math that went over my head. My advisor warned me about the difficulty of the project, but I thought I could handle it. I regret choosing such an advanced topic now. And regrettably, it won't induce the singularity or any sort of technological achievement any sooner.

KOHARU

You've still got one more year of undergrad, right Arturo? Are you doing a senior thesis?

ARTURO

I do have one more year left, and yeah! I am doing a senior thesis!

KOHARU

Cool! What's it going to be about, if you don't mind me asking?

ARTURO

I'm working on an experimental film on Misha actually. We haven't started filming and I'm still brainstorming but...

ISMAIL

On Misha? Does the film world need more whiteness? Arturo, I thought POCs were what made your films different from others. How is making a film about a white person pushing the envelope?

ARTURO

Good points Ismail. Well... the short film also functions as a domestic ethnography. I will be co-implicated, to use Michael Renov's term, in the film as well in a fashion I haven't fully resolved yet. But I'm hoping something comes out of inverting the ethnographic role of the straight, white male into the subject.

ISMAIL

Intriguing... I feel better about this film now. You're placing the ethnographic gaze on the person who is usually the ethnographer.

ARTURO

Exactly. And hopefully dissolving the emphasis on hyper-rational thought in the process.

A FEW DAYS LATER...

INT. ARTURO'S APARTMENT

MISHA

She broke up with me. She said she just wasn't feeling it and that she ESPECIALLY didn't like my taste in music.

ARTURO

You win some, you lose some. So what's been up with you? And, ha, you do have atrocious taste in music.

MISHA

Well, one of my philosophy TAs recommended I mess around with my sense datum more if I want to break through the fabric of reality. She recommended acid so I went to my dealer and my dealer was like, "all the acid around here is bunk. Take these shrooms instead. They're on clearance." And so I bought them.

ARTURO

You should have just bought some acid on the darkwebs. It's cheaper and safer on there. Oh well, I guess we better test these shrooms out then.

MISHA

Arturo, you go first.

ARTURO

Me? No, I've got more shaman blood than you, you should probably go first so I can guide you on your journey.

(MORE)

ARTURO (CONT'D)

Or better yet, let's assuage our intuition of equality (Socrates reference) and just try them together.

MISHA

Deal.

ARTURO

On the count of 3, 1.. 2.. 3..
CHOMP.

The duo eat the psychedelic mushrooms.

How long does it take for them to go into effect? Did you dealer say?

MISHA

You know, I forgot to ask. It slipped my mind.

ARTURO

Should I get get a glass of water in case I get thirsty? These trips probably last a while.

MISHA

Yeah. You can get a glass of water. The shrooms should take about 15-20 minutes to kick in according to Google.

ARTURO goes and gets a glass of water, and when he walks back he begins to say...

ARTURO

So Koharu broke your heart because she didn't like your taste in music. I guess that means I'm in charge of picking the tunes.

ARTURO goes to the stereo to change the music playing but decides not to.

ARTURO (CONT'D)

Actually, let's see what's on the TV.

ARTURO turns off the stereo and turns on the TV.

Oh, what a coincidence.
500 days of Summer is on.

MISHA

You know, Zoey Deschanel is actually really cute.

ARTURO

Yeah, she is isn't she? Like if I were straight, I bet I'd have a huge crush on her. What else is on?

MISHA

Wait, is she the one? "The only question I've ever wanted an answer to - is she the one? The answer bloody well isn't forty-two, it's yes."

ARTURO

Ha, good answer, so long and thanks for all the fish Zoey.

ARTURO changes the channel with the remote.

NEWS ANCHOR

Well it looks like this franchise of Pitágoras almost closed down due to trafficking drugs.

MISHA and ARTURO give each other uneasy glances.

NEWS ANCHOR (CONT'D)

Fortunately, it was immediately transferred to new management since we know the community would miss its burritos. In other news, local scientists at the university have discovered that quasicrystals have strange superconductive properties when dipped in heated red wine. Apparently resveratrol in the wine deintercalates iron found in certain configurations of quasicrystals. So it becomes like a sort of chaos emerald from Sonic the Hedgehog, and we're not talking about sonic hedgehog, the protein in your brain encoded by the eponymous gene SHH, but the video game: Sonic the Hedgehog. Resveratrol is a weak acid naturally found in red wine and quasicrystals are made synthetically in laboratories.

(MORE)

NEWS ANCHOR (CONT'D)

I was a PhD student in physical chemistry before going into the news media so this really gets me nerding out.

ARTURO

I hope these shrooms were potent. I don't feel anything yet.

MISHA

They just take some time to kick in is all. While we wait, I wanted to mention another faux pas that I committed. Sophomore year, which feels like such a long time ago, I was working at the physics tutoring lab when Clarissa, who was then just a girl who had recently transferred into the physics major, comes up to me asking for some help on her physics homework. Due to my own insecurities and the fact that the physics problem she was having trouble with was of medium difficulty, I gave her a lecture that she should try harder and that physics ain't easy. And that she should consider another major.

ARTURO

Wow.

MISHA

Well fast-forward a few years and she's made a complete 180 degree turn. She's even now president of the Women in Physics club. The downside of this is that she is still raw about my comments to her and turned the whole physics student department against me, calling me sexist. I'm not sexist though. I don't think. Am I sexist?

ARTURO

You've made some sexist comments in the past... but so have I. It's our male privilege talking. But no, I don't think you're intentionally sexist.

MISHA

Well, anyway, there was one day where I walked into the Society of Physics Students room to study and chat, and everyone got up and left because I came in. It really hurt my feelings.

ARTURO

Sounds like you have a lot to mull over on your shroom trip Misha.

MISHA

Yeah, I do.

15 minutes later...

Begin Newgrounds-esque animation (Matty Burrito, et. al., glitch art)

Legend of Zelda theme music

MISHA and ARTURO begin to experience hallucinations from the shrooms. Switch to newgrounds-esque flash animation and chiptune music. They go outside to interact with the outdoor environment and abstract, fractal, and trippy shapes consume the screen for a couple of minutes. Once they've gotten past the peak of the trip, they go to a convenience shop. ARTURO buys a Minute Maid drink while MISHA buys some cigs. While ARTURO takes sips of his drink, MISHA begins to smoke and talk.

MISHA (CONT'D)

Woah. That was intense. At the height of the trip, it felt like my soul was leaving my body and visiting some sort of alternate dimension outside of base reality.

ARTURO

Are you still feeling it? I kinda still am.

MISHA

Yeah. But I'm a little hungry now.

ARTURO

Me too. Let's go to Pitágoras. It's right across the street.

MISHA

Okay. I'm craving a burrito.

ARTURO

Cool beans.

ARTURO walks with MISHA to Pitágoras.

MISHA looks into a mirror in the bathroom and sees an amalgam of shapes.

The shroom trip is ending and it's night time. The duo order some burritos and while they are eating ARTURO begins to ask...

ARTURO (CONT'D)

Hey Misha, I can walk you back home, but do you think I could stay at your place until we're certain the effects fully wear off?

MISHA

Yeah, Sure.

ARTURO

Awesome. The rainbow trails have worn off for me, but I just want to be sure.

INT. MISHA'S HOUSE

MISHA

(In Russian)

Mom, can Arturo stay over the night?

MISHA'S MOM

Which one is Arturo?

MISHA

Him.

ARTURO steps into the lit area of the home.

MISHA'S MOM

Okay sure.

ARTURO

(In English)

Where's your Dad?

MISHA

He holds a professorship in China, where he spends most of the year teaching marine optics. So he's abroad.

ARTURO

So your mom just stays here alone?

MISHA

She babysits sometimes, so she gets out. She also talks to a friend who is a therapist, which she says is helpful. Okay, well, I've got to "showah" and go to sleep. Arturo, you can sleep on the couch in my room.

Arturo eyes MISHA'S MOM. MISHA'S MOM gives him a wary look. MISHA leaves the room to get ready to take a shower.

ARTURO

Do you watch a lot of movies?

MISHA'S MOM

Actually, I do. Now that the kids are grown up, I have a bit more free time for cultural endeavors.

ARTURO

Have you seen "Y tu mama tambien"? It's a gem of Mexican cinema.

MISHA'S MOM

I don't watch many Mexican films. I'm more into Russian, Israeli, and American movies. What is the film's premise?

ARTURO

Well it's directed by Alfonso Cuarón, and it's about two Mexican teenagers from different social classes taking a road trip together and falling in love with the same woman. Along the way they both confess that they made love to each others' moms. Or maybe that movie's not so applicable to you and I. Maybe the scenario we find ourselves in is more out of "The Kids are Alright."

MISHA'S MOM

... ..Do you like to make love?

ARTURO

Wow! You're so forward! Yes of course. Not many people don't.

Pause.

MISHA'S MOM

How about with me?

NARRATOR

And it was at this instant that Arturo succumbed to his most Freudian drives. If he couldn't have Misha, intimacy with his mom was a somewhat close second even if he didn't identify as hetero or bisexual.

ARTURO

Sure!

MISHA'S MOM

Horrorshow. No rush. Misha takes long showers.

INT. BATHROOM

MISHA is sitting on the toilet naked, holding his cellphone with his hand. He is masturbating to a video on his phone.

The next day while the duo are eating cereal for breakfast...

MISHA

I had a dream about you Arturo the other day. Did I tell you already? You told me I had to go back to Israel. That Israel is the only place I would be truly happy. I'm thinking of actually going back and going to school there.

ARTURO

Okay.

Pause.

Won't you have to join the Israeli Army if you go back though since you're an Israeli citizen?

MISHA

You're right. I didn't think about that. I hope not. I don't fully agree with Israeli politics. But then again, I don't fully agree with U.S. politics either.

INT. ARTURO'S APARTMENT

ARTURO

I know staying with your parents over the summer can be a drag, and we have an extra room with a spare bed that we were AirBnB-ing. You can stay there if you like.

MISHA

Really? Won't I be an inconvenience?

ARTURO

No, we like your company. I already asked Ismail and he's fine with it. He made a reference to Israel and Palestine about how he didn't want to replicate the conflict in his home, so he accepts you warmly.

MISHA

Awesome, if you can help me transport my things, I'll move in my stuff soon.

ARTURO

Sounds good! And once you're moved in, we can record some footage for my thesis film project.

MISHA

Oh yeah! It's about me still right?

ARTURO

Yeah! It's a series of short clips reflecting on quintessential human topics and you're the star of the show!

MISHA

Okay. That seems like a fair trade for letting me stay with you.

The next day... ARTURO is helping MISHA move in.

ARTURO

Well, I think that's the last of the boxes. Oh what do you have in that box there?

MISHA

Word journals. I've kept them since I've arrived to America. If I come across a word I don't know, I log it into my word journal and look it up later. Since I feel like I'm running out of words to write in my journals, I've recently been adding idioms that I read or hear.

ARTURO

Oh, cool. Can I see them?

MISHA

Yeah, sure.

Arturo opens the texts and gives a puzzled look.

ARTURO

You know, your handwriting is terrible. The journals are illegible.

MISHA

Yeah, once one of my physics teachers called me up to the board to write out the steps of a problem and made the same remark. He nor the rest of the class could truly decipher my writing, but the professor, knowing how to work out the problem, verified that I was correct after a bit of a struggle. Here, I'll read my word of the day to you:

The word "Shangri-La" pops up on a black screen and MISHA says the word.

MISHA (CONT'D)

A remote or imaginary utopia. I love the book, Lost Horizon, which spawned this! Semi-synonyms more common and worth knowing: El Dorado and Elysium or Elysian Fields.

(MORE)

MISHA (CONT'D)

Also, I wanted to tell you that I
have a girl I met at a coffee shop
coming to sleep with me tonight.
That won't be a problem will it?

ARTURO

No, no problem at all. In fact, I
wholeheartedly embrace it!

FADE TO BLACK.

ACT FOUR: OLENKA (2015)

FADE IN:

A science documentary narrator narrates an episode on abiogenesis with science footage onscreen:

TV SCIENCE NARRATOR

Abiogenesis, biopoiesis, or informally the origin of life, is the natural process by which life arises from non-living matter, such as simple organic compounds. On Earth, the transition from non-living to living entities was not a single event but a gradual process of increasing complexity. Abiogenesis is studied through a combination of paleontology, chemistry, and extrapolation from the characteristics of modern organisms, and aims to determine how pre-life chemical reactions gave rise to life on Earth. Scientists speculate that life may have arisen as a result of random chemical processes happening to produce self-replicating molecules. One of the popular current hypotheses involves chemical reactivity around hydrothermal vents. This hypothesis has yet to be empirically proven although the current evidence is generally supportive of it. Abiogenesis is not a single step event, but a process. Biological life has the properties or capabilities of organization, metabolism, homeostasis, growth, reproduction, response and evolution. All cellular life that has those capabilities is alive. Whether viruses are alive or not is more controversial. At least, viruses do reproduce and evolve, but are unable to do so independently from the host cells they invade.

(MORE)

TV SCIENCE NARRATOR (CONT'D)
 Conversely, first "life" very possibly lacked many important properties, such as homeostasis and response, as in viruses. However, unlike viruses, first life very possibly had reproduction and metabolism, but which came first is unclear.

INT. LIVING ROOM

OLENKA (Misha's Mom) is a middle-aged woman in a gown getting out of bed. Next to her is a younger white muscular college-aged man. The TV playing the abiogenesis documentary is in front of the pull-out bed.

OLENKA
 That was fun. But, don't come back tomorrow. My husband is returning from China.

YOUNGER MAN
 Yes Ma'am.

The younger man makes a cougar sound and a scratching gesture with his hand towards OLENKA.

OLENKA
 Go through the back door. I'll message you again through Kik when he's done with his trip here.

Title Card (In Russian): I've missed my period. Is it menopause or pregnancy?

The next day... OLENKA is doing laundry.

LARION enters the apartment with travel bags.

LARION
 (In Russian)
 Olenka, I'm home!

OLENKA
 Larion!

OLENKA and LARION hug.

LARION
 Olenka! How are you? How are Misha and Maya doing?

OLENKA

I'm doing good. I was just doing some laundry, washing the sheets to the bed. Misha's doing fine. He's riding his bike from his apartment today so he could see you. Maya is here though.

LARION

Good. I made a stop in Israel and was able to pick up some Kariot. I know Misha goes crazy over that cereal. And I got Maya some Marc Chagall postcards.

OLENKA

How sweet of you. They'll appreciate that. Which reminds me, I'm thinking of moving back to Israel with Misha. What do you think? There's nothing holding me back in the States anymore now that both kids are in college.

LARION

Well, we'd have to find a place to rent in Israel. The good thing about this house is that the EPA subsidizes it for when I do research in the States. And I like having a home in the U.S. you know? In case things go south elsewhere. Where were you thinking of moving in Israel? Rehovot? Tel Aviv? God forbid you want to live in Jerusalem. I can't stand the zealotry there.

OLENKA

I was thinking the Tel Aviv district. Specifically the Kiryat Ono neighborhood, where we used to live before.

LARION

Oh, that is a nice neighborhood. Very nostalgic.

OLENKA

Misha is expressing desires of studying at the Weizmann Institute of Science as well now that he's graduated.

(MORE)

OLENKA (CONT'D)

He could commute from Kiryat Ono to Rehovot, where the Weizmann Institute is. It's not that far.

LARION

Oh, before I forget, I brought you a book that I found in a quaint little Russian bookstore in Israel. It's a relatively short read; I read it on the airplane trip here. It's called "We" by Yevgeny Zamyatin.

OLENKA flips through the book.

OLENKA

Oh Zamyatin, why is that name familiar?

LARION

He is considered one of the first Soviet literary dissidents. Had the Soviet Union not censored him and his books, you would have read him in a Russian literature course. We'll talk about moving later. I want to see the kids.

MISHA rushes into the apartment almost out of breath.

MISHA

I'm not going back to that apartment. Arturo's a freak. He won't respect my privacy. He went into my room and... and... into my trash bins and he sucked the cum out of one of my used condoms. He just told me. Just now. While we were filming for his video!

MAYA walks into the living room.

MAYA

(In English)
TMI Misha! I'm surprised you get any though.

MISHA

Well, he did! He admitted to it! And yes, I do get some thank you very much.

OLENKA
(In Russian)
Arturo your roommate?

MISHA
Da!

OLENKA
Hehe, interesting. He seemed like
such a different kind of person to
me when he came over.

LARION
You left most of your stuff there
though didn't you? I mean, you're
not carrying it with you.

MISHA
Yeah, you'll have to go back to get
it because like I said, I'm not
going back there.

OLENKA
Don't worry. He didn't leave
anything important I don't think.
We'll get it before the end of the
summer.

LARION
Well, for better or worse, now that
the whole family is here, I wanted
to announce that I've received a
promotion at my university in
China. I'm now an associate
professor.

OLENKA
Congratulations!

MISHA
What does that mean? More money?
Are we getting a bigger apartment
so you and Mama don't have to sleep
on the couch anymore?

LARION
You're right. I will receiving a
higher salary. Maybe it's not
enough to get a bigger apartment
yet, but it is something. It's at
least something to cover Maya's
college tuition, now that she's
entering the university.

OLENKA

That's very true. Don't mind me,
I'm going to start preparing supper
now.

LARION

Ah, don't worry about that for now
Olenka. I was thinking we could
celebrate my promotion by going out
to eat tonight.

MAYA

(In English)

Yes! Sounds like a plan! I'll get
ready!

MISHA

(In Russian)

Me too! I need something in my
belly to get over what just
happened to me.

OLENKA

It seems like the kids are up for
it. What are you thinking?

LARION

I'm tired of Chinese. And I just
had the best falafel in Israel.
Falafel in the States doesn't
compete. How about some burgers and
fries? American staples. It's our
patriotic duty to celebrate this
country's cuisine for a bit.

Later that night, once the family has returned from dinner
and to their abode...

MISHA

I'm going to take a walk outside.

LARION

I'll accompany you. I want to walk
off the food we just ate.

MAYA

(In English)

I'm going to get ready to shower.

OLENKA

(In Russian)

Da. I'll be here in the living
room.

OLENKA gets on her laptop, with her glasses on, and she checks VK, the Russian social network similar to Facebook. On the screen, there's a notification for a new message. OLENKA opens it. It's from a man called SERGEI PETROVICH. The message reads...

Приве́т (Privyet) Olenka. It's me, Sergei Petrovich, your long lost lover. I'm in Moscow. Want to Skype?

OLENKA types on her laptop: Sergei? Is this really you? How did you find me?

SERGEI: I simply looked up your new name on VK. And my son Misha, how is he doing?

OLENKA: Well. He's doing well.

SERGEI: Add me on Skype: SergeiPetrovich. I know it's been a while, but I want to talk to you face to face.

OLENKA gets on Skype and finds Sergei and begins chatting.

SERGEI

Well, hello there Olenka! Nice to see your face. I see you've aged well.

OLENKA

You look pretty young yourself. What time is it over there?

SERGEI

It's 5 am right now. So, Misha's doing fine, eh? Last time we wrote to each other while you were in Israel, I remember you mentioning that you had a child with Larion, the guy you left Russia with. Maya right?

OLENKA

Yes.

SERGEI

It makes you wonder, how many golubois are out there with families...

OLENKA

...What do you want?

SERGEI

Closure. Misha's grown up right?
I want to know what he's up to.
Has he graduated college yet?

OLENKA

Yes. He recently graduated and now
he's applying to graduate schools.
How is your poetry?

SERGEI

I've been published in a several
literary journals. No Pushkin
prize though, yet... I'm teaching
kids Russian literature now. From
time to time, I sneak in a few
contemporary Russian-Jewish writers
like Joseph Brodsky and Masha
Gessen. I also married and had
more of my own children. Two
girls. Ada and Maria. Did Misha
keep up with his Russian?

OLENKA

Surprisingly, yes. He doesn't
speak it as well as an educated
Russian, but he does speak it at
home. You know Sergei that I still
love you, and will always love you.
You were my first love, but I left
you because I didn't want a hand-
to-mouth existence for Misha. And
you also didn't want to leave
Russia.

SERGEI

Times have changed. Jews are an
accepted part of Russian culture
now. You could even say we're the
vanguards of culture.

OLENKA

I know times have changed, but in
Israel, times didn't need to
change. I also wanted Misha to
grow up proud of being Jewish,
rather than fighting for
recognition. Misha's Hebrew is
pretty good as well. Better than
mine.

SERGEI

Ah, so the boy came out trilingual!
English, Russian, and Hebrew!
Amazing!

OLENKA

He has a penchant for words, but it
doesn't extend to poetry
unfortunately. I showed him some
of your work one day and he just
glazed over it. He came out more
of a scientist, like Larion. If
you loved me so much, why didn't
you follow me to Israel?

SERGEI

It's not in my blood or literary
taste. Like in Anna Karenina, the
greater man--Larion in this case--
won. And regardless of what I
think of the Russian state, it is a
fantastic time to be a writer of
Russian literature. My allegiance
is with the Russian language,
something that would be lost in
Israel. Anyway, I'm writing a long
form poem about Misha. I never got
to know him, so I'm fictionalizing
his youth--what it would be like if
he grew up here and you with me.
It's a nice literary exercise--to
imagine an alternate timeline of
our lives.

INT. PHARMACY STORE

The next day: OLENKA is at the store purchasing a pregnancy
test. She is in one of the aisles comparing two different
pregnancy tests. She goes to the checkout register and hands
the selected pregnancy test to the cashier, whom gives her a
look. The cashier rings up the test.

CASHIER

That'll be \$18.18.

OLENKA pays for the test and exits the store.

INT. OLENKA'S APARTMENT

OLENKA arrives back home and goes into her bathroom to test
it out. After a minute, it comes back as negative. She
gives a sigh.

OLENKA
 (In Russian)
 Menopause.

OLENKA walks into the living room, Maya is in the dining room doing her homework.

OLENKA (CONT'D)
 What are you up to sweetie?

MAYA
 (In English)
 Homework. It's on civil rights movements in the U.S. My focus is gay rights.

OLENKA
 (In Russian)
 Oh, that sounds like fun.

After a pause...

MAYA
 (In English)
 Mama, why did you marry a gay man?

OLENKA
 (In Russian)
 What do you mean?

MAYA
 (In English)
 Oh, come on Mama. I've known Papa was a goluboi for a while. I found his porn stash one day while I was looking for some old photos.

OLENKA
 (In Russian)
 Really?

MAYA
 (In English)
 Yeah.

OLENKA
 (In Russian)
 Well, I guess you're old enough to know. I was waiting for a better moment than this, but I'll give it a shot. Larion, your dad, provided in a way I knew Sergei, my first husband, wouldn't be able to. You see, Sergei was a poet.
 (MORE)

OLENKA (CONT'D)

His love was poetry. And let me tell you how lucrative poetry is in Russia...

MAYA

(In English)

And so you married a gay man...

OLENKA

(In Russian)

At first I didn't know your dad was gay. He wasn't out since it was Soviet Russia we're talking about. And it was refreshing to be around him. He was so dry, which was beautiful in an analytic sort of way. The fact that he was always so respectful of me made me fall in love with him. We became best friends. And then he asked me if I wanted to leave Russia and move to Israel. He was accepted at PhD program there. I, ever the adventurer, said yes. I was already pregnant with Misha, but I thought Israel would provide a safer, more Jewish upbringing for your brother, which you probably know by now is only your half-brother. He's not Larion's son.

MAYA

(In English)

Does Misha know?

OLENKA

(In Russian)

Nyet. I initially thought it would be better that way, so Misha wouldn't rebel when your dad would discipline him. I will tell him soon. But back to your father. Can you imagine being Jewish AND homosexual in Soviet Russia? It's unbearable. You have to compromise your identity on both fronts. So we moved to Israel, and after experimenting, surprisingly had you! We decided to stay together after that.

MAYA
 (In English)
 So that explains all the lovers
 your bring to the house!

OLENKA
 (In Russian)
 You know about them?

MAYA
 (In English)
 It's okay Mama. It's the 21st
 century. Polyamory is in now,
 especially if Papa is gay...

OLENKA
 (In Russian)
 Well, I tried to keep it a secret
 from you and Misha but I guess the
 cat's out of the bag now. Your
 father knows about them though. We
 have an open relationship but don't
 disclose our lovers. Who knows
 what he gets into in China.

Later that night OLENKA is getting ready for bed on the pull
 out sofa bed with LARION. She falls asleep and begins
 dreaming.

EXT. A FOOTPATH AT THE BEACH DURING THE FOGGY MORNING.

OLENKA is casually walking. There is a lighthouse in the
 background. She takes her cellphone out and takes a picture
 of the lighthouse. After a while, she sees a man on the foot
 path. It's Sergei with flowers in his hand.

OLENKA
 Sergei! What are you doing here?

SERGEI
 I came to see you?

OLENKA
 How did you know I was going to be
 here at the beach?

SERGEI
 I have my ways. Not really, I just
 followed the geotagging on the
 picture of your phone you posted on
 VK.

OLENKA
So quickly though?

SERGEI
Well, we are in a dream. Blame
dream logic. I came here because I
want to see Misha.

OLENKA
I'll determine if I want to tell
him or not about your existence.
And then it'll be his decision to
see you. Not mine. If he wants to
seek you out, then so be it.

SERGEI
Fine. Here take the flowers. I
wrote Misha a short poem in the
vein of naturalist poetry. It's
called "Who is like God?"

SERGEI hand the flowers to OLENKA and pulls out a folded
piece of paper from his pants pocket and starts to unfold it.
He clears his throat. "WHO IS LIKE GOD?" appears onscreen in
Russian before fading out back to Sergei reciting his poem.

SERGEI (CONT'D)
The rhetorical question "Who is
like God?" is framed in the Hebrew
version of the name Michael. Of
course, the comparison between
Michael and God is not being made
for Michael is merely a man and God
is infinite, like the number of
Calabi-Yau manifolds. Rather, the
question is posed in Michael's name
to Satan right before the archangel
slays him. Michael. Michael.
Michael. And so on. / My son
Michael. I would have liked to see
you grow. All I remember is your
alabaster skin and your eyes as
blue as the Black Sea in the
summer, when the phytoplankton shed
calcite and turn the water cyan.
But I am sanguine that one day I
will meet you and all will say your
name. Michael. Michael. Michael.
And so on.

SERGEI (CONT'D)

What did you think? It's a little short, but I still have to write the final stanza. Do you think Misha will like it?

OLENKA

It's very postmodern. I like it, but as I've said before, Misha doesn't have a developed poetry palate. Eh, but who knows?

EXT. OUTSIDE IN TOWN ON A FOOT PATH.

OLENKA talks with her therapist.

OLENKA

Sergei contacted me the other day. And then I had a dream about him in which he recited what seemed like a very accurate rendition of a poem he would write.

THERAPIST WOMAN

Who is Sergei again?

OLENKA

My first real love. Misha's father.

THERAPIST WOMAN

Doesn't Misha have Larion's last name though?

OLENKA

Yes, I was pregnant with Misha when I met Larion. He was born when we were already in Israel, and I was married to Larion for immigration purposes, so he took on Larion's last name. Which reminds me, Misha wants to study neurobiology at the Weizmann Institute. I might go with him. The boy may be smart but he can barely tie his shoes. He's so absent-minded.

THERAPIST WOMAN

Ah, you know what Schopenhauer said about the absent-minded?

OLENKA

No, what?

THERAPIST WOMAN

That it is a sign of genius.

OLENKA

Perhaps.

Oh, well then, we'll have to keep in touch if you do decide to go to Israel. Do you have a Facebook or VK?

OLENKA

I have both. I'll look for you and add you. I'm definitely going to miss you and all our chats. But who knows, I might come back if I go or I might not go at all. Maya is still going to be in school here, although she's more independent and I don't worry much about her.

THERAPIST WOMAN

No problem. You're one of my favorite cases. Now back to business. What did you and Sergei talk about? I'm sure you two had a lot of catching up to do.

OLENKA

We mostly talked about the past in Russia, his burgeoning poetry career, Misha, my life in the States. I guess the same stuff I talk to you about.

THERAPIST WOMAN

Well if you brought it up, the conversation, it must have caused you some distress, right?

OLENKA

Contacting him was nostalgic. It brought back the feelings I had for him and for Russia. My time in Russia was inflected by his presence.

THERAPIST WOMAN

Yes. Russia. We both miss it. But life in the States isn't so bad either.

(MORE)

THERAPIST WOMAN (CONT'D)

The weather is much more moderate and the harvests are more bountiful. The muscadines that grow here are very sweet. Something that Russia does not get.

OLENKA

True. But I wonder, what would have happened if I had stayed with Sergei. Misha would have still been with me. Maya wouldn't have though. But I suppose I wouldn't miss her if I never had her.

THERAPIST WOMAN

You know what Freud said about dreams about ex-lovers?

OLENKA

What did he say?

THERAPIST WOMAN

Nothing profound. Basically, that your psyche is dealing with loose ends. Have you told Misha yet?

OLENKA

No. Maya figured part of it out, so I told her, but I haven't told Misha. Did I tell you that Misha has a gay admirer?

THERAPIST WOMAN

No. Do tell.

OLENKA

Well, surprisingly, I slept with him when I first met him, but now I know that he was really after Misha. I understand why he slept with me though. I saw Misha grow up. I penciled in his height on the door, smiled at his childish jokes, took him to Russia, saw his personality develop, and so on. I was the closest physical connection he had to Misha.

INT. OLENKA'S APARTMENT

That night, OLENKA wakes up in the middle of the night next to LARION. She goes to MISHA's room.

OLENKA

Misha, Misha, wake up. I have something to tell you.

Shot of the moon filler.

MISHA

You mean Larion isn't my Papa? I guess I already kind of knew deep down. I don't look anything like him. But I didn't know he was gay. This is earth-shattering! Why didn't you tell me sooner?

OLENKA

I don't know why. I was a little afraid perhaps of disrupting the family dynamic we had going on. And you were so young, Larion is practically like your father.

MISHA

So who's my real dad?

OLENKA

A man named Sergei Petrovich. He lives in Russia. I can give you his contact information and when you go to Israel, if you decide to go to school there, you can visit him in Russia on one of your extended breaks or perhaps he will come and visit you!

MISHA gives OLENKA a hug.

MISHA

Thanks for telling me. I'll still call Larion Papa if that makes you feel any better. So do you think you are coming to Israel with me?

OLENKA

After thinking about it for a bit longer, probably not. Although I worry about you, I think it's time to let you fly by yourself with your own wings. And Maya might need a place to stay when the dorms close at her university.

MISHA

That makes sense.

EXT. ARUTRO'S APARTMENT

The next day... it's nearing the end of summer. A long shot of ARTURO's apartment is shown.

INT. ARTURO'S APARTMENT

ISMAIL and ARTURO are in the living room reading. There is a knock on the door. ISMAIL gets up and opens the door. In the doorway is OLENKA with MAYA.

OLENKA
(In English)
We're here to get Misha's stuff.

ARTURO gets up to meet OLENKA and MAYA at the door.

ARTURO
That's fine. Can I keep some of it?

OLENKA
If you pay for it.
We're taking the bed though.

ARTURO
Go ahead then. The bed is all I really wanted. The mattress really.

Pause.

OLENKA
What are you going to do now that you've graduated?

ARTURO
I'm going back to school to study math. I want to study computational complexity, specifically the P vs NP problem.

OLENKA
What's that?

ARTURO
It's hard to explain but basically it's a question about algorithmic complexity and efficiency.

OLENKA

Oh, that sounds fancy. I got my degree in accounting so I only know rudimentary math. Well, good luck then.

ARTURO

That's it? Misha doesn't have anything to say to me?

OLENKA

Other than he never wants to see you again, no. And besides, he's too busy. He got himself a summer job and he's working at Food Lion now.

ARTURO

Sigh, okay.

EXT. FOOD LION DURING THE DAY

Long shot of Food Lion, the grocery store. ARTURO walks into the store.

INT. FOOD LION

ARTURO spots MISHA at one of the cash registers. ARTURO picks up a few boxes of muscadine grapes from the produce section and heads to the register. There's no line since the store is pretty empty at this hour.

ARTURO

I thought you'd be here.

MISHA

Arturo? What are you doing here? No, never mind. I don't want to talk to you. Just let me ring up your groceries and go.

ARTURO

Well, your mom told me you'd be here. And I wanted to see you one last time before you flew half-way across the world.

MISHA rings up the 4 boxes of muscadine grapes.

MISHA

Do you have an MVP card?

ARTURO
I have an MVP card but I don't have
it with me. Can I just punch in my
phone number instead?

MISHA
Yeah. Go ahead.

ARTURO punches in his phone number into the number pad while
MISHA bags his groceries.

ARTURO
So are you going to have to join
the Israeli Army?

MISHA
Nope. I just found out that I have
a heart condition that excludes me
from joining. That'll be \$17.08.

ARTURO gets \$17 out of his wallet and a dime out of his
pocket and hands the money to MISHA.

ARTURO
Good. I didn't want you to die
subjugating Palestinians.

MISHA
Hey, don't joke about that. Two
cents is your change. Have a nice
day. Next customer please.

There's no one else in line behind ARTURO.

ARTURO
Goodbye Misha. Sorry that a used
condom ruined our friendship.

ARTURO picks up his groceries and proceeds to leave.

MISHA
Goodbye Arturo.

ARTURO turns around and gives a slight smile, but then
continues to exit the store.

INT. NATURALIZATION CEREMONY ROOM

MISHA and LARION are in a naturalization ceremony room where
MISHA is reciting the oath of allegiance.

MISHA

I hereby declare, on oath, that I absolutely and entirely renounce and abjure all allegiance and fidelity to any foreign prince, potentate, state, or sovereignty, of whom or which I have heretofore been a subject or citizen; that I will support and defend the Constitution and laws of the United States of America against all enemies, foreign and domestic; that I will bear true faith and allegiance to the same; that I will bear arms on behalf of the United States when required by the law; that I will perform noncombatant service in the Armed Forces of the United States when required by the law; that I will perform work of national importance under civilian direction when required by the law; and that I take this obligation freely, without any mental reservation or purpose of evasion; so help me God.

EXT. OUTSIDE THE NATURALIZATION ROOM

OLENKA

(IN Russian)

Well, how did it go?

MISHA

I'm a citizen now.

OLENKA

I'm so proud of you Misha.

MISHA

Thanks Mama. Also, while I was packing for Israel, I couldn't find some of my math and physics books. Are you sure you brought everything from Arturo's apartment?

OLENKA

I brought everything I could find. Maybe Arturo kept some of them. You should ask him.

MISHA

I will.

INT. MISHA'S APARTMENT

MISHA calls ARTURO on his cellphone.

MISHA
(In English)
Hey Arturo, it's Misha. Do you
have my math and physics books?

ARTURO
Yeah, I do.

MISHA
What are you doing with them?

ARTURO
Well, I'm not going to become a
mathematician reading October am I?

MISHA
I suppose not. Can I have them
back?

ARTURO
No.

MISHA
Why not? They're my books.

ARTURO
You left them on MY bookshelf in
the living room when you moved out,
so I claimed them. There are a a
lot of good finds in them! What
are you going to do with them
anyway? You're going to Israel
aren't you?

MISHA
I was going to sell some, give some
away, and keep a few. But, fine,
keep them. Don't ever talk to me
again.

MISHA hangs up the phone.

FADE TO BLACK.

ACT FIVE: ARTURO'S FILM (2016)

FADE IN:

INT. PRESENTATION CLASSROOM

A college-aged African-American girl named FAITH walks up to the podium and begins talking.

FAITH

Greetings everyone. For those of you who don't know me, I'm Faith. My senior thesis film explores the notion of contemporary whiteness and blackness in the context of the art historical movement suprematism pioneered by Kazimir Malevich in Russia around 1913. Thanks for watching.

Start film with a black square on white. Then move to other configurations of black square on white. Then transition to portrait mode of an actual black person wearing black in front of a white backdrop. Then move to a white square on white. Move to other configurations of white square on white, and finally white person wearing white on white backdrop. A shot of the audience watching the film is presented. The finale is an overhead shot in the film of actors wearing either black or white on a white background. Another shot of the audience is presented clapping as the film ends.

FAITH walks away from podium and ARTURO is standing behind a table with a computer and a screen adjacent to him, ready to give a presentation. There is an audience in front of him.

ARTURO

Hello there and thank you for coming to my presentation. As a part of my senior thesis project, I've decided to make a short experimental film. The footage was shot during the summer of 2015. What I screen today will probably be my last film before I dedicate myself primarily to the utopian project of mathematics, in a way extending cine-reality to the realm of performance art.

(MORE)

ARTURO (CONT'D)

I might return to cinema, if the muse calls me back through the right notes, but for the foreseeable future, math beckons. Again, thank you and enjoy the film.

Cut to the film.

Waves are crashing in the opening shot. There's a logo superimposed on the screen. Classical music is playing -- the same classical music that was playing non-diegetically in the opening of Act II (Bach). Then there is a cut to a well-light MISHA sitting in a dark room, interview-style. It is a split-screen or two-channel video with the second box empty of content.

INT. ARTURO'S APARTMENT

MISHA

To be honest, I don't think your film will be that interesting. I just don't think it'll hold people's interest for very long and it won't contribute to science as a body of knowledge either, for which reason I don't see the point in me participating in it besides being your friend and you providing me housing. And so it is only for those reasons that I sit here before you.

Second box cuts to ARTURO.

ARTURO

Well, thank you for your time then Misha. It is duly appreciated. Now, shall we begin?

MISHA

Sure.

ARTURO

Okay.

----jumpcut---- Show a timestamp

MISHA

I want to stall brain death because I'm actually afraid of dying and as a human, we revolt against meaninglessness.

(MORE)

MISHA (CONT'D)

We accumulate so much sense memory and go through so many experiences in this plane of existence that it's a real shame that it all goes away after on average roughly forty to eighty years on Earth.

ARTURO

So you don't believe in an afterlife?

MISHA

Well, memory functions through ion patterns chemically reacting with axons. These chemical reactions occur in chains, which allows them to stay on in the long term. When you die, your neurons die, meaning there is no longer enough ATP to sustain those reactions, and your memory effectively disappears. If there is after-life, you will not be remembering any of your previous life. The only biological image of you on the molecular scale is inside the DNA molecule. However it isn't a perfect image of you. It doesn't change. It simply contains instructions which inform how your body develops and grows over time. If there is after-life, when you reach it, you will not look the same as you have at the time of death. Perhaps, you're going to have to go through the birth process a second time. There are no particles leaving a person's body upon death. If there is a soul, it's functioning through some kind of non-physical alternate dimension, assuming such a thing actually exists. To be able to contain your DNA, it needs to be made of physical cells.

ARTURO

Misha, I'm in love with you.

MISHA

No, Arturo, you just have an infatuation with me.

ARTURO

No, Misha. I really am. I went into your room, found a used condom on top of your trash bin and sucked the cum out of it.

MISHA

Wait, what? You went into my trash and did what? You're kidding right?

ARTURO

No.

MISHA

Stop recording right now. STOP!
STOP! STOP!

---jumpcut--- Show timestamp indicating an earlier recording time.

MISHA (CONT'D)

In reality, I probably won't make it.

ARTURO

Won't make it where?

MISHA

Just wait. That's what I'm getting to. Several billion people have been and will continue to be in my shoes. They all died or will die. My chances at tasting the wine of centuries unborn, to quote Robert Ettinger, the father of cryonics, are pretty slim. Anyway, my professors told me not to go into theoretical physics-- that it's not my forte. Neuroscience is a better fit for me. There's less math. And besides, significant progress is yet to be made in neuroscience. The brain still contains plenty of unexplored territory. Who knows, my contributions to neurobiology may even help stall brain death, or upload our brains to computers, which would then allow me to pursue the deeper questions about the world around me without a deadline and finally break through the fabric of reality!

(MORE)

MISHA (CONT'D)

That would be an optimal situation.
What are YOU going to do after you
graduate?

ARTURO

I'm going to attempt to solve the P
vs NP problem.

MISHA

Really now? With no formal
training in university mathematics?
What if you fail, which is highly
likely?

ARTURO

I won't fail.

MISHA

No! What if you fail? Answer the
question. Don't change the
subject. Go.

ARTURO

Then I'll go back to trying to
photograph God.

MISHA

Well, at least you have a plan... a
rather quixotic plan, but a plan
nonetheless.

----Jumpcut---- Show even earlier recording time.

Show a scene of a jellyfish.

ARTURO

What's your most painful
experience?

MISHA

Um, I was hugged by a jellyfish
once.

ARTURO

You wouldn't say your recent
breakup was more emotionally
painful?

MISHA

Yes, that was painful, but in a
different sort of way. I grew from
that, both socially and
emotionally. It was good pain.
Like exercise.

(MORE)

MISHA (CONT'D)

Here, let me provide a digression about pain. We can talk about the concept of pain. Pain, like emotions and feeling, is not something quantifiable. We received it through evolution to withdraw from potentially damaging situations, and to be able to recognize and avoid those situations in the future, protect a healing body part, use it as a means of fear and control in groups, etc. It harbors a feeling because otherwise it would not influence our actions. The actual feeling may be different for everyone - but it serves a common goal. If we make a robot that will touch a hot object and forever try to avoid hot objects, not because of a specific programmed function that has to do with the act of touching a hot object, then we can say the robot has the ability to feel pain. It is far beyond our current technology, though.

ARTURO

Interesting.

MISHA

Now, to turn the tables, why do you want to solve the P vs NP problem?

ARTURO

Because it virtually guarantees our return to paradise, a return to the garden. As a vanguard of culture, it is my goal to push society forward towards that goal. Film can serve as a marker of the times, but perhaps its revolutionary potential has been stunted by its lack of tangible scientific progress. Sure, scientific breakthroughs can be epiphenomenal to filmmaking, and if one wants to live forever as a sort of projection, then acting in a film is a good way to achieve that goal, but as a whole, science and math remain fields worthy of the cause.

(MORE)

ARTURO (CONT'D)

Cinema aids in social change, education, and community and empathy building through time and space, but solving the P vs NP problem is probably the most efficient way to move towards a eutopia, with an e. It's the miracle, the holy grail, we've been waiting for. And if P doesn't equal NP then that's just proof that we are in a mushy sort of world where everything is always just slightly beyond our grasp. Besides, I feel like I've said everything I wanted to say through video art and film. Refashioning myself as a mathematician acts as a form of performance art as well à la Duchamp's retirement from art.

MISHA

What makes you so sure that we're not in a simulation? And that paradise isn't simply outside of these walls? Outside of base reality?

ARTURO

I can't answer that, well, perhaps I could obliquely if I invoke Heidegger, but without that knowledge, attempting to solve the P vs NP problem seems like the most optimal way of making progress towards several philosophical questions that we don't have the technology to answer right now.

MISHA

Good response. Do you have any more questions?

ARTURO

Of course I have some more questions. We've got plenty of time. This is only the beginning.

---Jumpcut to a later filming time---

MISHA

I said stop the recording.

MISHA walks up to the camera...

MISHA (CONT'D)
How do you turn this off?

ARTURO
Don't touch the camera.

MISHA
Delete what you just said Arturo.

ARTURO
No.

MISHA
I said delete what you just said;
it's disgusting.

ARTURO
No, without it the film has no
conflict.

MISHA
Fine, I'm leaving. How's that for
conflict?

MISHA leaves the frame. The audience can hear a door slam.
Show waves crashing on the beach on both screens once again.
Show freeze frames of MISHA, pictures ARTURO had taken
earlier in the film.

ARTURO'S VOICEOVER
I was in love with Misha. That's
why I made a film about him.
Everything else was a pretense. I
wanted to film him to preserve my
memory of him as art because I knew
there would be a time where I would
see him no longer. I wanted to
preserve him like the
"preservativo" containing his
semen...

A used condom appears onscreen.

like the locks of hair I've
collected from him over the
weeks...

Strands of hair appear onscreen.

like the books with his inelible
handwriting I took from him...

Open books with MISHA's handwriting appear onscreen.

(MORE)

ARTURO'S VOICEOVER (CONT'D)
like the dirty t-shirt that still
has his armpit stains from when he
wore it last...

A crumpled up dirty blue t-shirt appears onscreen.

Maybe if I live long enough and the
technology is developed, I'll be
able to clone him and raise him as
my own child. That would be the
optimal outcome.

Finally onscreen, P ?= NP flashes on a monochrome background
for a few seconds.

FADE TO BLACK.

EPILOGUE (2017)

FADE IN:

EXT. WEIZMANN INSTITUTE OF SCIENCE

Long shot of the iconic Weizmann Institute particle accelerator.

INT. MISHA'S GRADUATE STUDENT OFFICE

SERGEI and MISHA are sitting vis-à-vis at MISHA's desk. MISHA's hair is a tiny bit longer than before and combed back for once. He is wearing a sweater and dress shirt combination with khaki pants. SERGEI is wearing similar garb.

SERGEI

(In Russian)

Did you like the poem I sent you?

MISHA

I'm not a fan of poetry but I particularly liked your poem for some ineffable reason.

SERGEI

I'm glad. It sounds better recited out loud but email will do for now. Now what exactly are you researching?

MISHA

We're doing rotations in labs this year, so I recently selected the lab I'm in right now, but in this lab, we're trying to understand the mechanisms underlying response properties of neurons in the primary sensory cortex, so basically how do we make sense of the world physically is our main question.

SERGEI

What's the Holy Grail of your field?

MISHA

Solving consciousness, which we will then be able to program into robots and satisfy Alan Turing's dream.

SERGEI

Are you close?

MISHA

Eh, we're getting there. Do you want some more coffee?

SERGEI

Sure.

MISHA gets up and pours SERGEI some more coffee from a nearby coffee pot in a coffee maker.

SERGEI (CONT'D)

Aren't you going to pour yourself some more?

MISHA

No. Too much coffee exacerbates my Tourette's syndrome, which sometimes gets in the way of things that I want to do like driving or it causes me to commit actions I'm not proud of like delete the front page of Wikipedia. I actually did that once when I was an administrator of Wikipedia. You can look it up if you google Michaelas10. It'll be a cool story to tell the grand kids someday for sure, and hey, at least I got a "Surreal" barnstar for it, Wikipedia's form of achievement trophies.

SERGEI

Ha, so having kids is in the picture?

MISHA

I guess. I mean it's one of the big things in life right? But hopefully, that's years away from today. And besides, there's nobody special in my life right now.

SERGEI

How about that gay admirer that Olenka told me about? Does he still contact you?

MISHA

Yeah. He sends me creepy emails periodically and tells me he is going to visit Israel one day to come see me. I tell him not to though.

SERGEI

You must have left quite an impression to do that to a person.

MISHA

Ha, I guess.

SERGEI

Okay. Well, I'm tired of sitting. Do you mind showing me around the campus if you're not too busy? I saw some beautiful sculptures while I was walking by before.

MISHA

No problem. Follow me.

The duo gets up and exits the room, which is now empty.

FADE TO BLACK.

THE END