A list of paradoxes

grandfather Paradox if you use a time machine to stop your grandparents from meeting you might prevent your own birth but if you were never born how could you have used the time machine in the first place Achilles and the Tortoise Achilles Achilles and the Tortoise a fast runner gives a tortoise a head start in a race the Paradox says Achilles will never pass the tortoise because every time Achilles reaches where the tortoise was the tortoise has moved a little it keeps going like this forever making it seem like Achilles can't catch up ship of Theus you have Ship of Theseus ship and you replace all its parts is it still the same ship if you use the old parts to build another ship which one is the original sortis Paradox you have a Sorites Paradox heap of sand if you remove one grain at a time when does it stop being a heap Barber Shop Paradox in a town the rule Barbershop Paradox is the barber shaves those who don't shave themselves but who shaves the barber if he shaves himself it breaks the rule if he doesn't he should be shaved according to the rule Catch 22 Catch-22 Paradox needing something you can only have if you don't need it for example a pilot can avoid dangerous flights if he's insane but asking not to fly shows hes insane. fermi Paradox if the universe is Fermi Paradox infinite why haven't we seen any aliens Opposite Day Paradox opposite day Paradox if I say that it's opposite day is it Simpsons Paradox it Simpsons' Paradox occurs when a trend appears in different groups of data but disappears or reverses when the group are combined this shows that the overall conclusion can be opposite to the conclusions drawn from Individual subgroups tolerance Tolerance Paradox Paradox unlimited tolerance can make tolerance disappear as it allows too much intolerance for a tolerant Society to survive it must not Tolerate intolerance bootstrap Paradox if a time Bootstrap Paradox traveler gives a Young Einstein a book with the theory of relativity and Einstein publishes it as his own who's the original author Stockdale Paradox Stockdale Paradox believing you will soon succeed decreases your chances of succeeding meanwhile maintaining a belief that you will succeed one day increases your chance of succeeding jeevan's Paradox Jevons Paradox technological improvements that increase the efficiency of resource use tend to cause an overall increase in resource consumption because people like the product more. Olbers Paradox why Olbers' Paradox the sky dark if there are a vast number of stars in the universe Paradox of Paradox of Thrift thrift saving more money individually is generally a good thing but it can lead to economic problems for everyone as it could cause reduced consumption and economic growth unexpected hanging Unexpected Hanging Paradox Paradox a condemned prisoner is told he'll be hanged on a weekday next week but the execution will surprise him as the week progresses he reasons that Friday is the latest possible day for the hanging since it would still be a surprise on Thursday but if it hasn't happened by Thursday night Friday is no longer surprise he concludes it must occur on Thursday yet that would also be expected value Paradox essential things Value Paradox like water are cheaper despite being crucial while non-essentials like diamonds are more expensive Pinocchio Pinocchio Paradox Paradox if Pinocchio says my nose will grow it creates a logical dilemma if it's true his nose should grow but then he's lying if it's false his nose shouldn't grow but then he's telling the truth cism Paradox the more directly on Hedonism Paradox seeks pleasure or happiness the less likely they are to achieve it crocodile Crocodile Paradox Paradox a crocodile steals a child and Promises its return if the parent correctly predicts what the crocodile will do if the parent says the child won't be returned and the crocodile agrees a paradox arises if the crocodile Returns the child it contradicts its promise if it doesn't return the child it also contradicts the agreement sword and shield Paradox what happens when a Sword and Shield Paradox sword sharp enough to cut any Shield meets a shield strong enough to block any blade dichotomy Paradox imagine Dichotomy Paradox walking towards a destination to reach it you'd first have to walk halfway there and to walk halfway there you'd first have to walk a quarter of the way there and so on creating an infinite amount of steps and causing you to not be able to reach your destination Fletcher Paradox though it seems an Fletcher Paradox arrow in motion is continuously changing its position the Paradox argues that at any instant it can't move to where it isn't or where it is making it stationary since time consists of these instance this Paradox suggests the arrow is stationary the entire time Grand Grand Hotel Paradox Hotel Paradox in an infinitely big hotel with infinitely many rooms even if all rooms are occupied the hotel can still accommodate more guests in order to accommodate you the hotel could hypothetically move the guest from Room 1 to room two this would move every guest from their current room to a new room which is possible since there's an infinite number of rooms card Paradox Card Paradox what's true if a card has the phrase the sentence on the other side of this card is true on the front side and the phrase the sentence on the other side of this card is false on the back side liar Paradox imagine that someone says I'm Liar Paradox lying if the liar is indeed lying then the liar is telling the truth which means that he just lied about lying Grain of Millet Paradox grain of millet Paradox when a grain of millet Falls it makes no sound but when a thousand grains fall they do thus many of nothing become something the truth is that it does make a sound it's just that it's so inaudible that we don't perceive it boltzman brain it might be more Boltzmann Brain likely for a single brain to spontaneously form in a void complete with a memory of having existed in our universe rather than for the entire universe to come about Paradox of Paradox of Enrichment enrichment increasing the food available to an ecosystem may lead to instability and even to Extinction service recovery Service Recovery Paradox Paradox successfully fixing a problem with a defective product may lead to higher consumer satisfaction than in the case where no problem occurred at all Stability-Instability Paradox stability instability Paradox when two countries each have nuclear weapons the probability of a direct war between them greatly decreases but the probability of minor or indirect conflicts between them in increases ironic process Theory Ironic Process Theory ironic processing is the psychological process whereby an individual's deliberate attempts to suppress or avoid certain thoughts renders those thoughts more persistent Paradox of choice it's Paradox of Choice the theory that eliminating consumer choices can be beneficial because it greatly reduces anxiety for Shoppers Birthday Paradox birthday Paradox to have a 100% probability of at least two people in a group having the same birthday you'd need 366 people to have a 50% probability how however you'd need just 23 people Schrodinger's cat in quantum Schrodinger's Cat theory a particle can be in multiple States simultaneously when not observed this state is called superposition when observed however the superposition condition collapses and the particle is randomly in exactly one of those States let's hypothetically say that we put a machine that releases poison only when the particle is in the a state in a box and that we also put a cat in it until observed the machine would simultaneously release the poison and not release the poison this means that until observed the cat would be both alive and dead this would obviously work only if we don't consider the cat or the Twin Paradox machine as observers twin paradox according to Einstein the faster you move through space the slower you move through time if your identical twin became an astronaut and went on a spaceship that traveled at the speed of light you'd be some years older than him when he returned friendship Paradox on Friendship Paradox average your friends tend to have more friends than you do this happens because people who are social and have more friends are more likely to be your friends friends Raven Paradox if you Raven Paradox wanted to confirm that all Ravens are black finding a black raven supports your claim but the Paradox suggests that also finding something that is not araven and not black such as a green apple supports your claim temperature Temperature Paradox Paradox if the temperature is 90 and the temperature is rising is 90 Rising interesting number Paradox there can't Interesting Number Paradox be a smallest uninteresting number as if it's the first uninteresting one it becomes interesting for that fact it naturally follows that every single number is interesting Irresistible Force Paradox irresistible Force Paradox what happens when an Unstoppable Force meets an immovable object Lottery Paradox if Lottery Paradox there is one winning ticket in a large Lottery it is reasonable to believe of any particular lottery ticket that it is not the winning ticket but it is not reasonable to believe that no lottery ticket will win preparedness Paradox Preparedness Paradox after preparing to avoid a catastrophe and lessening the damage the perception regarding the catastrophe would be much less serious due to the limited damage caused after