MONTE HALL - 3 DOORS AND A TWIST 01

Hey you are eating something? No nothing. Something there on your mouth nothing, is that chocolate? Yeah, hey you are eating chocolate, yeah show show show this is almost over wait i have one chocolate i will give you guys would you guys please share that? No no no no i want one chocolate, i won't share with you, i want, no no last time also you took last time also you took no i want no i want, i won't share i will not share please share it please share it hey wait wait wait wait see i have an idea let us play a game ok, if you are lucky, if you win the game you will get the chocolate, are you ok for this deal? Ok i will play the game, anyways i will win i will not share with you we will see we will see, will see will see let's play the game yeah will see. so as i have said i have hidden my chocolates in one of this three bags, you are suppose to guess where would i have hidden, what would you like to choose? Hmmm i will choose this bag, this is your choice among the three bags let me make your life simpler, i will open this bag this is empty so the chocolate must be present in one of this two bags would you like to retain your choice or you would like to swap? No no no you are just tricking me this is my final choice i will stay with this, this is your final choice then i will close this ok now your turn is over i will call shubudha after her turn i will announce the results ok shubudha come as i have said i have one chocolate i have hidden it in one of these three bags you are suppose to guess which bag i would have hidden so which one you would like to choose? Out of three i have to choose one yeah, i will choose this bag, this is your choice yeah among three, yes let me make your life simpler i will open this bag, this is empty so chocolate must be present in one of these two bags would you still like to retain this choice of yours or you would like to swap? Oh this seems to be an interesting strategy let me think, i think i will swap i will swap this will be my final choice. Ok shubudha your turn is over, you had chosen that bag has your final choice, yes i will close this and i will call amit and will see the results ok, amit come ok. You had chosen this bag to be your final choice this contains, this is empty oh god and shubudha you had actually made a swap when i gave you a chance, yes, you initially choose this and you choose this let me open simultaneously, this is your final choice so let us zoom into this, this contains the chocolate and you win the chocolate, this is yours, thank you i won, can you please give me a bite no no no we had decided that we will not waste at least half half no no i will not share one fourth at least no no no no i will not share. Ok so we saw that the mother is playing trick on the kid, she is trying to force him to swap force him to change the decision, the point is, is it really required what exactly is happening here? I am sure we all are confused right? So let me do one thing in the beginning of the video beginning of this lesson you saw three people playing a game right? The chocolate game and vidya takes them and makes them play a game while she puts a chocolate inside a bag and the point is to find out what is that bag which has the chocolate ok and amit actually loses the game correct? Let me now call amit and ask him this question why exactly he lost the game? Was it out of shear bad luck or was it because his strategy wasn't correct. Hi amit, hello sir, i saw the game that you played, it was interesting, i am just wondering if you understood the nit critics of the game, the game is not simple as it appear to you right? so what just happened in the game, vidya tempted you people to play the game to win the

chocolate correct? As she was smart, she said she opened up a new bag which did not have a chocolate and tempted you to change; you did not change while shubudha changed right? You lost shubudha won my question is did shubudha get lucky here and did you get unlucky? Or if you are given a second chance should you swap? Or should you not swap? What do you have to say? Sir, i don't think it matters because in the end i have to choose one cup out of three, yeah so why does it matter that i have to swap? My chances are same, looks like it correct yeah, out of three i have to choose one in the end i don't think it make any difference i don't know i think it was just a luck, yeah so you know life is full of deceptions we think we think this is not the right way to do but that will be the right way to do, sometimes we feel that this is the right way to do and we will end up realising that this is not the right way to do here is one such lesson of life where i am going to show to you that swapping has a huge upper hand over not swapping by that i mean when vidya tricks you, you should succumb to the trick, temptation of changing, if you decide to always change your mind, you have higher chances of winning the chocolate shall we see how? Sure. Have this three cups with me one two and three perfect as an example i don't have chocolates i don't have jar so we should adjust with this, i need something to ok correct, this will be the chocolate alright? I am going to hide this some where you are not going to say it right? This is the chocolate three glasses alright? Ok. Turn that side you do not know where the chocolate is ok there are two glasses where there are no chocolate and there is a glass with a chocolate, let say ok so let me clear my table so that it is visible to you right amit? No chocolate one chocolate here start, i have to choose yeah, two glasses do not have chocolate one glass has a chocolate; hmm i will choose middle one, middle one? Yes it doesn't have a chocolate you choose middle one touch the middle one; this was your choice correct? You choose this yeah but then i am going to show you that this doesn't have a chocolate and now i am going to throw this away from the scene now you are left with two choices this or this? If you want you can change your mind, change your mind and choose this or don't change your mind and stick to this what would you like to do? I will not change my mind ok the point is the same right? Yes sir changing mind or not changing the mind doesn't matter right? You are not changing your mind you lost, its luck na? Its luck yeah so what if this had instead of this, this had it you would have won exactly correct, again you got unlucky right? so we will do one thing, ok why don't we repeat this experiment let say some fifty times, ok as long as it is possible for us. Sure you do one thing you stick to only on strategy hmmm you say sir i will not swap come what may, use that strategy some thirty times ok? ok and then the next thirty games will be you will always swap whenever i say whenever i show you an empty jar like this you will say i am sorry whenever you show an empty jar like this you will say sir i choose this but i plan to swap ok change sure, thirty this way thirty that way let see how it goes, ok we will make a note of how many times you win in the previous in the first strategy and then see how many times amit wins in the second strategy and let us decide for others which is the better method. Now we all have a feeling that it doesn't matter what strategy you choose, you win or lose with the same chance, the chances of winning or losing is a same or may be not will see this in detail with this experiment. Isn't this counter institutive? We thought both seemed a like you see amit told me that how does it matter it looks like in both the cases i am choosing something my chances of winning should not change but our quick experiment that i did with amit i was making him turn that side and i was trying to play the game with him he won more number of times in the

second case where he was swapping right, he was winning less in the first case where he was not swapping see if we play the game once we can probably say oh i lost because of bad luck we played the game many a times if you observed we played the game twenty times each for this strategy and this strategy somehow the second strategy of swapping seem to have an upper hand, why? So now the question is how do i even experiment and decide that one strategy is indeed better than the other? Computation to our rescue lets see.