

# Genetic Survivor

There are lots of traits that differ from one person to the next. And most of them aren't good or bad—they're just different. But what if something changed, and a trait that's neutral now suddenly became helpful or harmful?

In an imaginary future with killer grandmas or face-eating bacteria, how likely would you be to pass your genes to future generations?

*Remember: natural selection can act only on existing trait variations!*

## Instructions

1. Take an inventory of your traits. Record your answers in the trait column.
2. Complete Part 2 to determine your environment. Record the results in the environment column.
3. Fill in the column to show whether your trait version will be helpful, harmful, or neutral.
4. Prediction (do this before you calculate your score): If you have kids, how likely do you think it is that you'll pass your genes, and the traits they code for, to future generations? Do you think you'll have living descendants 200 years from now?
5. Scoring: Fill in your points **Helpful +2** **Harmful -2** **Neutral +1**

Trait		Environment	Your version of the trait is...	Points
<b>Hairline shape:</b> Does your hairline come to a point in the middle of your forehead?	Y	Vampire Apocalypse	helpful	
	N	Nightmare in Wonderland Today's Environment	harmful neutral	
<b>Photic sneeze:</b> Does bright light make you sneeze?	Y	Zombie Paparazzi	helpful	
	N	Blind Desert Stalkers Today's Environment	harmful neutral	
<b>Tongue rolling:</b> Can you roll the edges of your tongue together to make a tube?	Y	Tongue Parasites	helpful	
	N	<i>Lingua Adherens</i> Today's Environment	harmful neutral	
<b>Dimples:</b> Do you have dimples in your cheeks?	Y	Attack of the Killer Grandmas!	helpful	
	N	Cheek-eating Bacteria Today's Environment	harmful neutral	
<b>Height:</b> Are you at least 5'6" (168 cm) tall?	Y	PermaSmog	helpful	
	N	Mower Bots Gone Wrong Today's Environment	harmful neutral	
			<b>Total</b>	

## Results

Use your total score to find your prophecy for the future—should these events happen!

Total Score	Prophecy for the Future
> 5	Odds are very good that you will survive. If you reproduce, your kids have a good chance of inheriting your helpful trait variations. Unless conditions change again, your blood line will likely continue for many generations.
4-5	You will probably live long enough to reproduce. If you find a partner who shares your helpful trait variations, your kids will probably survive too. Your odds of having living descendants a few hundred years from now are good: about 2 in 3.
2-3	You will likely survive long enough to produce. It will take some luck, but your kids may survive to have kids of their own. Your odds of having living descendants several generations from now are about 50/50.
0-1	Your genes might live on—but they probably won't. It will take luck and ingenuity, and you will need to find a partner with more helpful trait variations than you have. Your odds of having living descendants several generations down the road are only about 1 in 3.
< 0	Odds are you won't survive long enough to reproduce. If you do have kids, they will likely inherit your harmful trait variations. Your blood line is all but doomed to die out within a few generations.

## Questions

1. Did your inherited traits (e.g. dimples) change during this game?
2. In normal life, is having dimples helpful, harmful, or neutral?
3. If a scenario from the game continued for many generations, how would the proportion of people with helpful trait versions change over time?