

THE VISIONARIES

EXPLORING THE ZOMBIE MODEL





WHY WE DECIDED TO FOCUS

ON VISUAL PERCEPTION:

BECAUSE

IT IS IMPORTANT

AND

IT IS BEHIND

MAIN HUMAN BEHAVIOURS

INTRODUCING VISIONARIES

'SUPER-GLASSES' THAT
GIVE HUMANS
SUPER POWERS!

THEY CAN PERCEIVE
ZOMBIES FROM A
GREATER DISTANCE
AND FLEE EARLIER!





So the Government appointed us to study the effect of distributing VISIONARIES among the population during a zombie aocalypse

Who gets access to the VISIONARIES?

Any non-zombie person
(civilians, army, red cross medics)

We followed this method....

1. Distribute VISIONARIES among civilians, army, and red cross members
2. Vary the power of VISIONARIES
3. All or none of the army and red cross members have access to the VISIONARIES
4. Vary the proportion of civilians having access to VISIONARIES

Our questions....

- 1) What is the optimal distribution of the available visionaries among civilians, army and red cross in order to have greater chances of surviving zombies' attack?
- 2) What is the most effective power of the VISIONARIES?

Code modifications

RedcrossPerception is now a parameter available to change in the code.

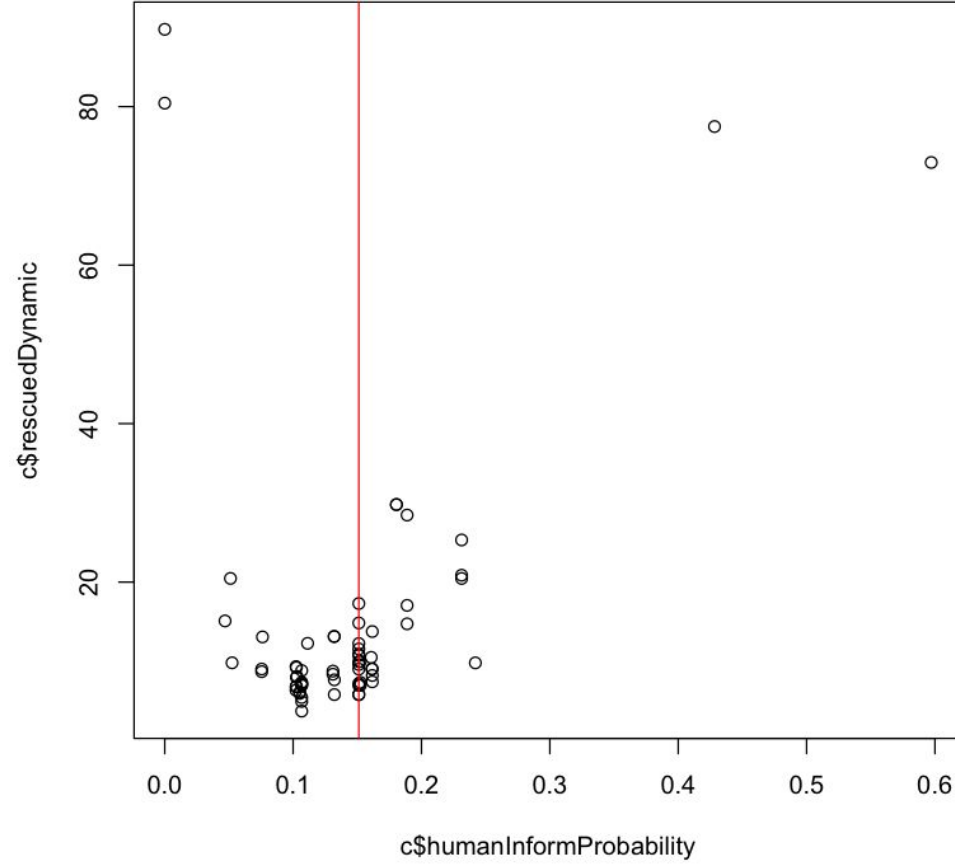
It was previously not distinguished from human Perception defined as *perception* (=1.4)

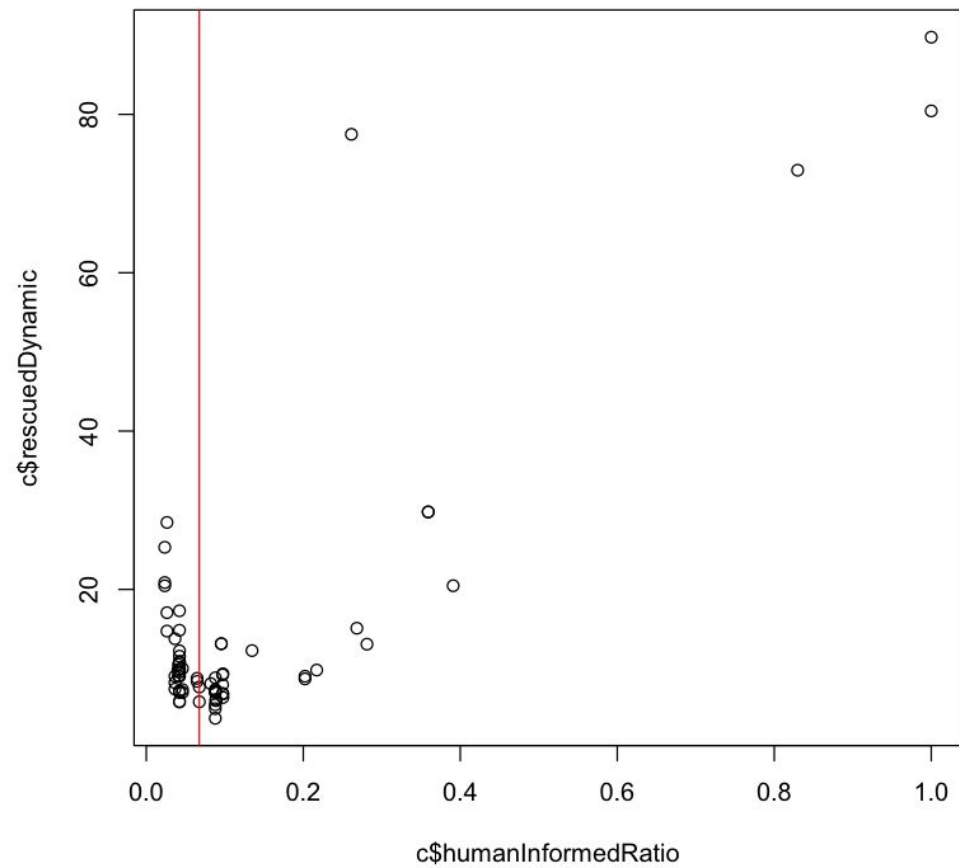
But first! CALIBRATION

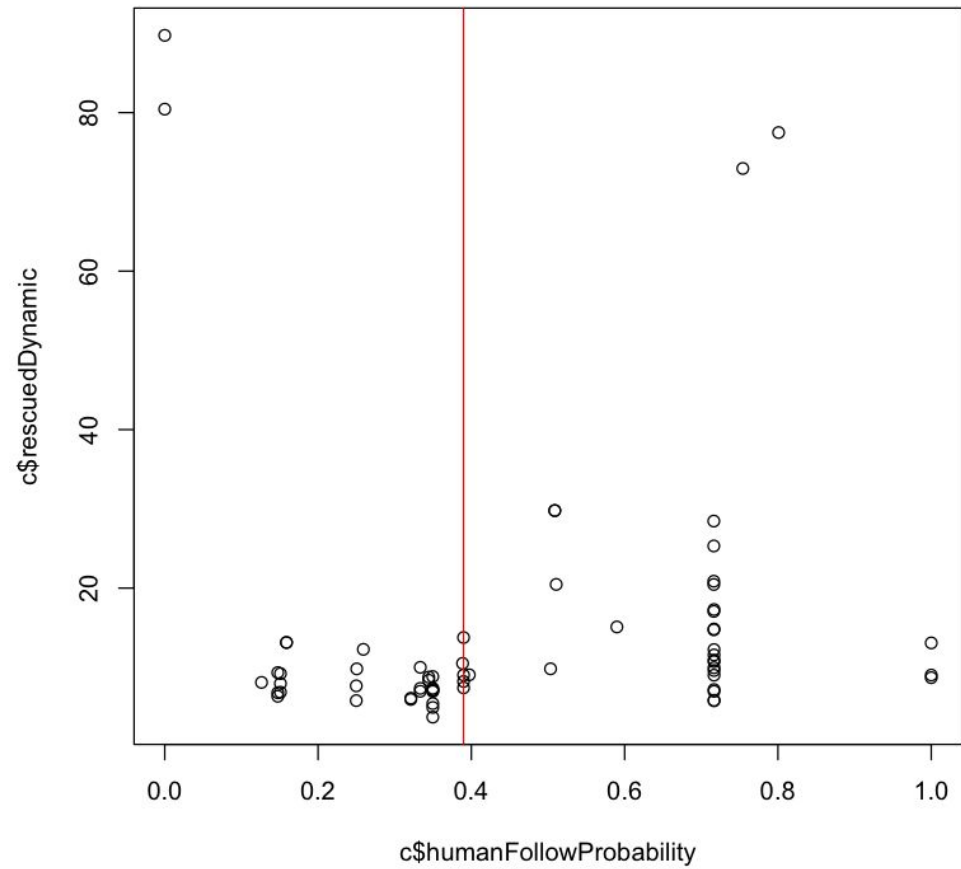
Fit the variables

- humanInformedRatio
- humanInformProb
- humanFollowProb

...based on the rescued dynamics of the real zombie data from the stadium

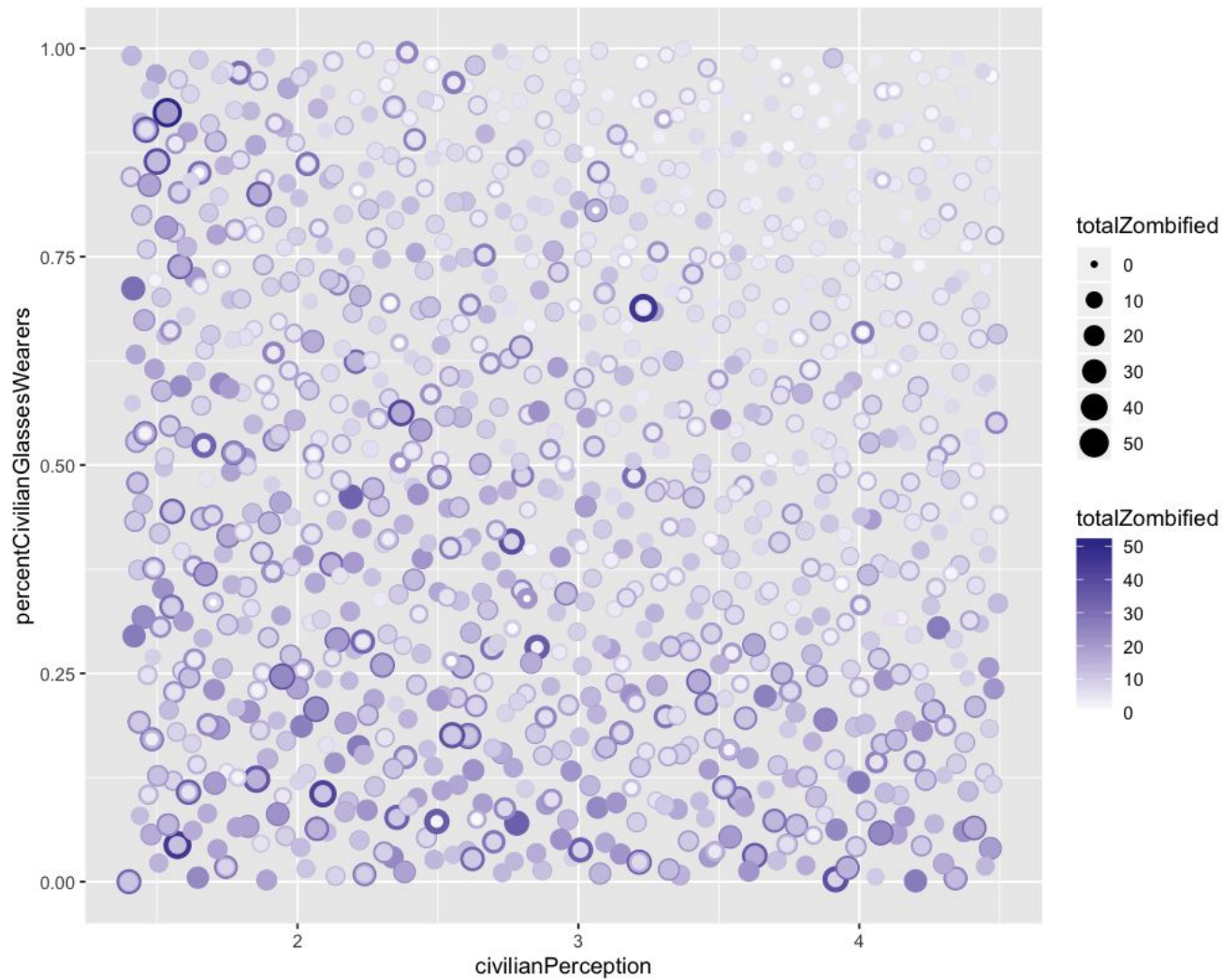


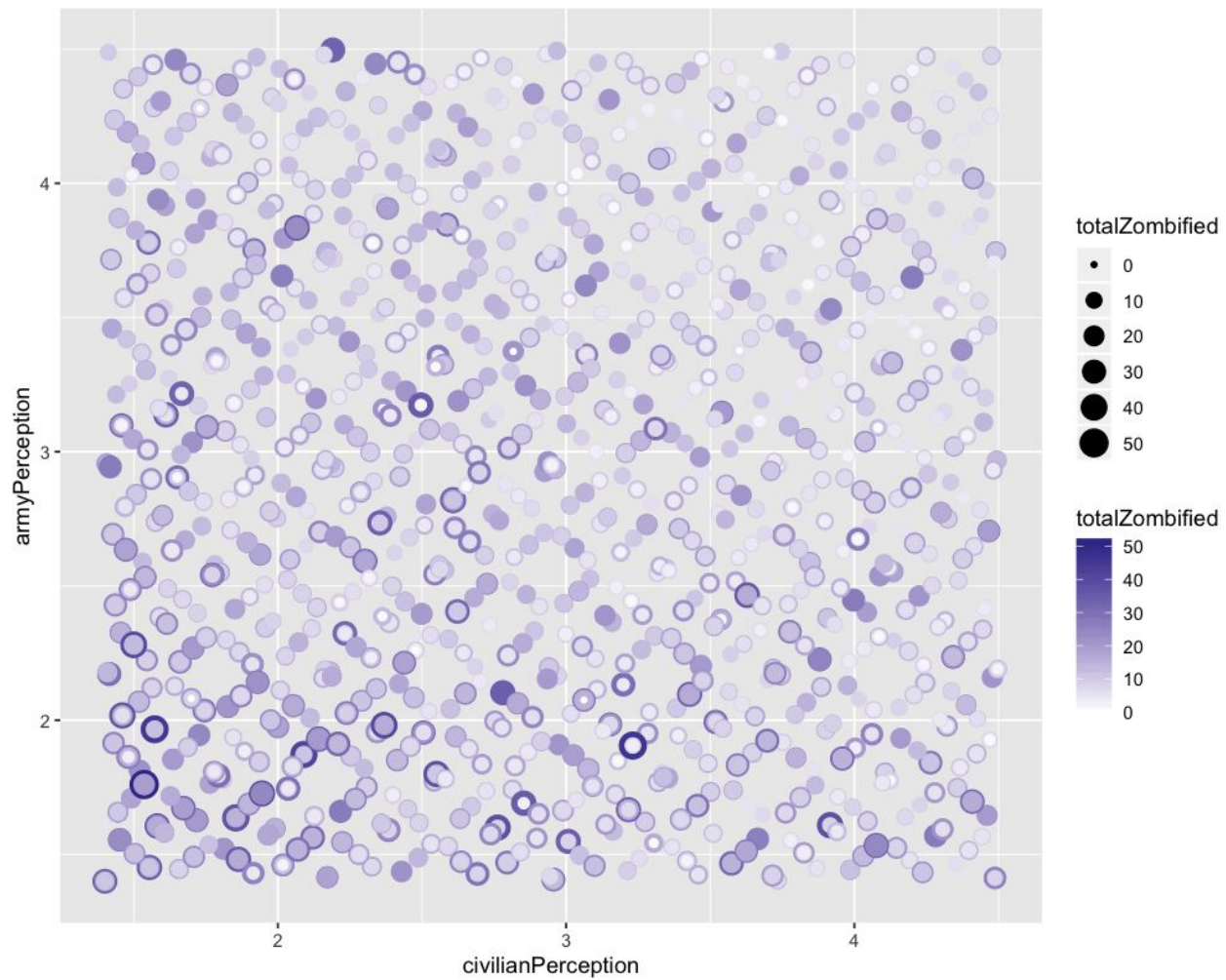


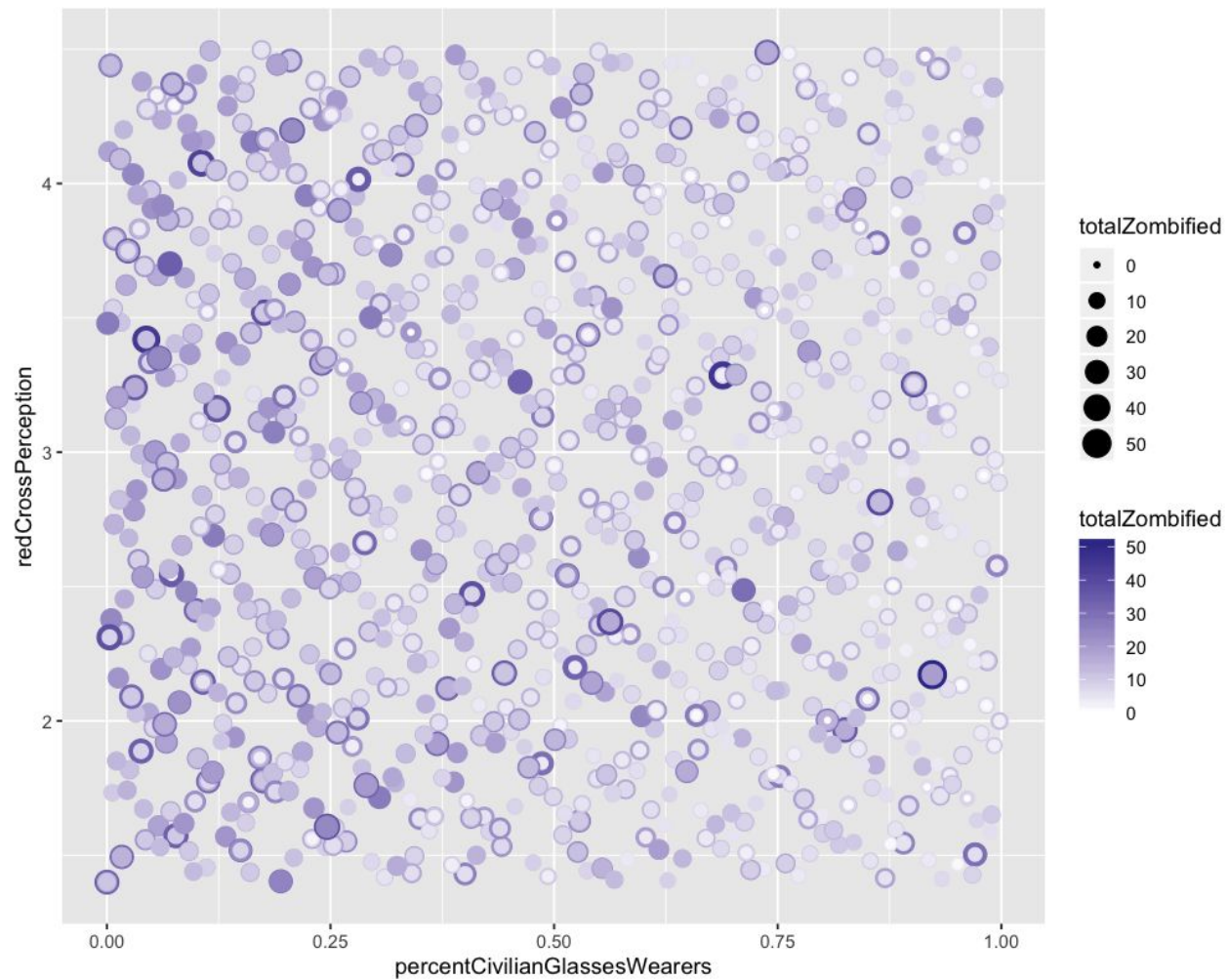


How do Visionaries change the situation?

Results







Multivariable Regression

Parameter	Estimate	Std. Error	t value	Pr(> t)
civilianPerception	-0.1661	0.1129	-1.472	0.141
armyPerception	-1.6128	0.0562	-28.655	<2e-16 ***
percentCivilianGlassesWearers	0.7863	0.6011	1.308	0.191
redCrossPerception	-0.0113	0.0562	-0.202	0.84
civPerception x percentCivilianGlassesWearers	-1.8787	0.1953	-9.618	<2e-16 ***

Conclusions

1. Increase Perception can be an effective way to minimize number of people zombified (Cf multivariable regression).
2. Only if High percentage of population have the glasses AND the perception enhancement is high (From 1.4 to 4.5).
3. Even if Army and Redcross have extra “power”, increase their perception doesn’t decrease number of people zombified.

Other questions, that we did not manage to answer in 24 hours

1. Does the change in the geometry of the space affect the above dynamics?
2. What happens if zombies inherit the vision of visionary humans that are zombified?!!!!

