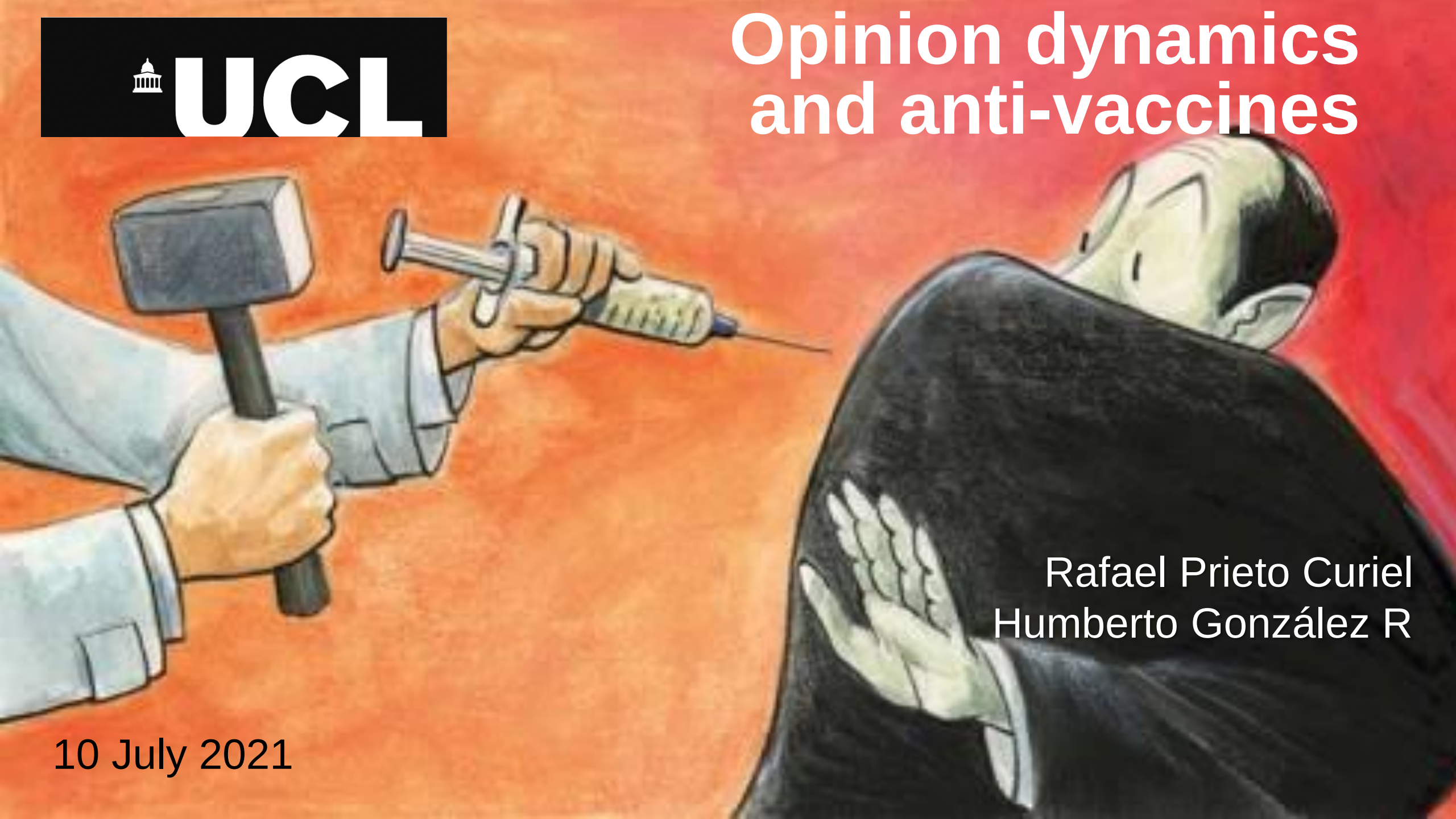
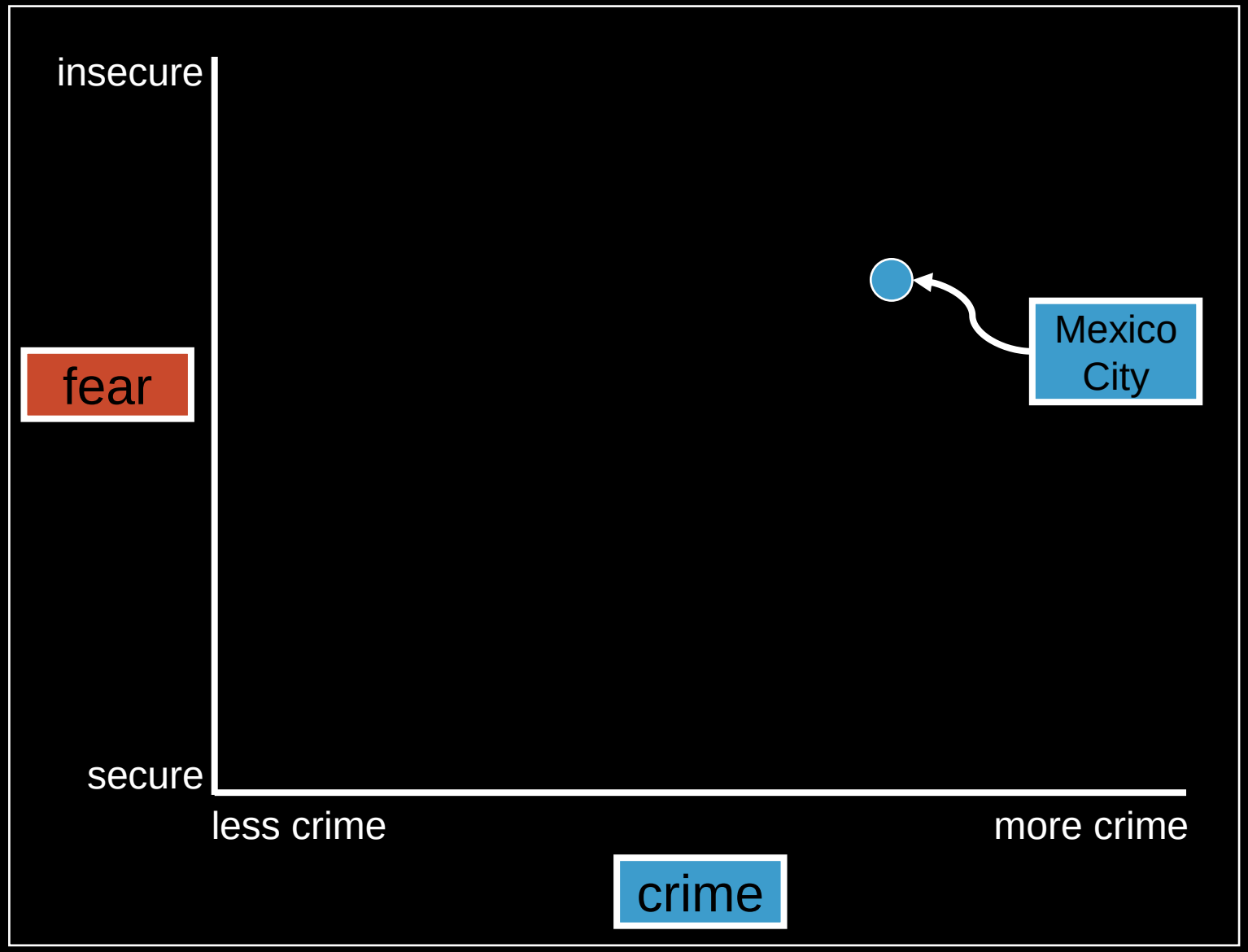
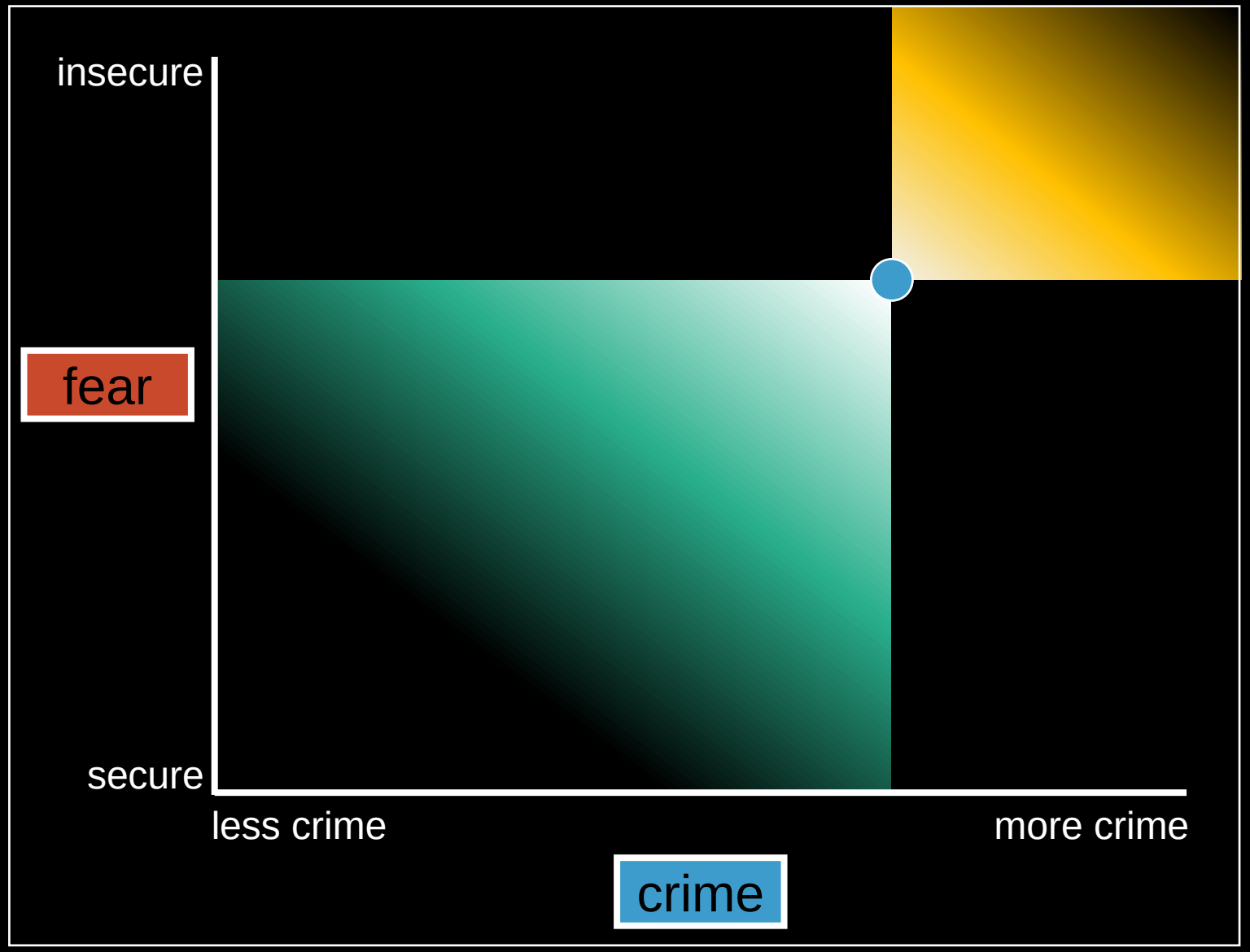
Opinion dynamics and anti-vaccines

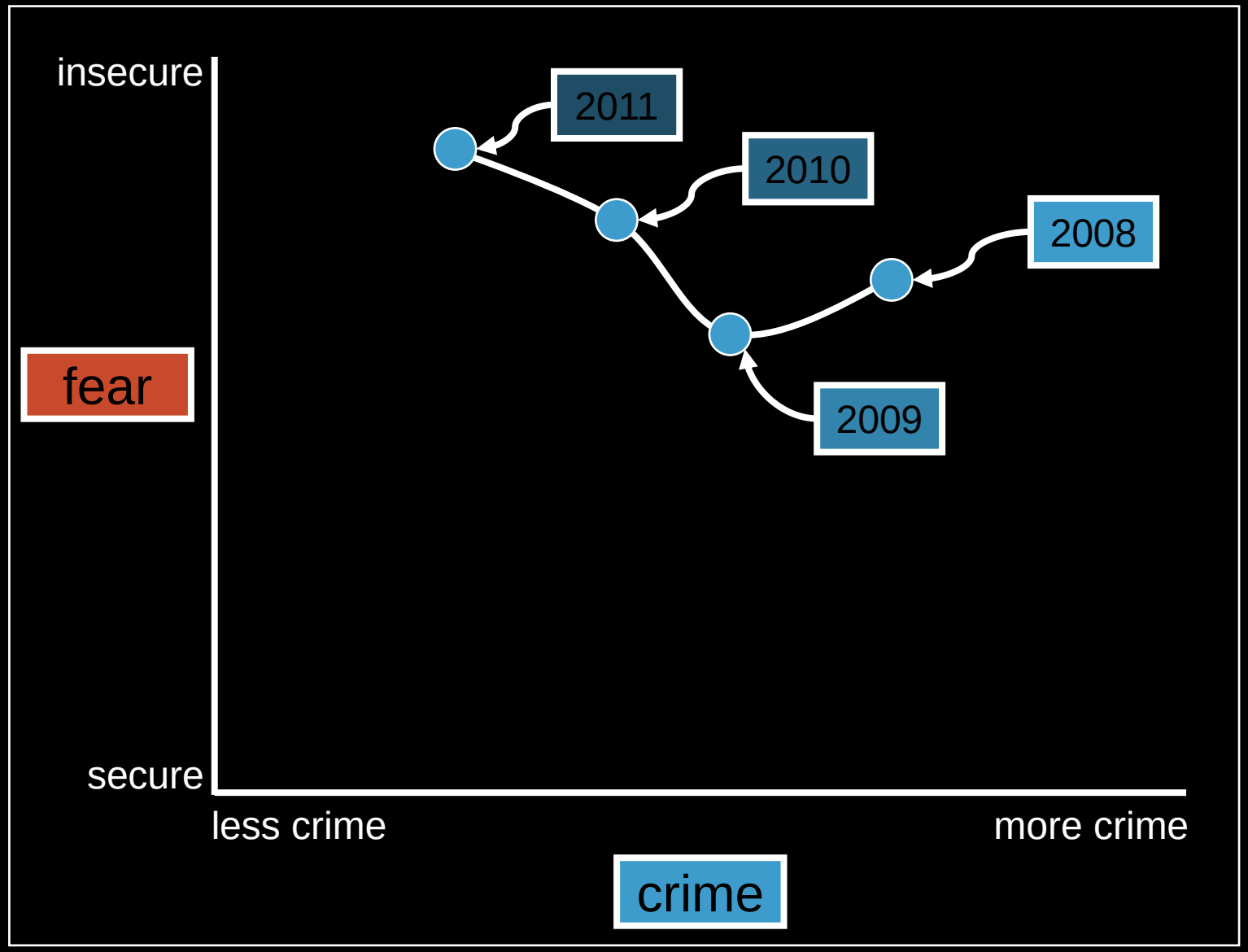


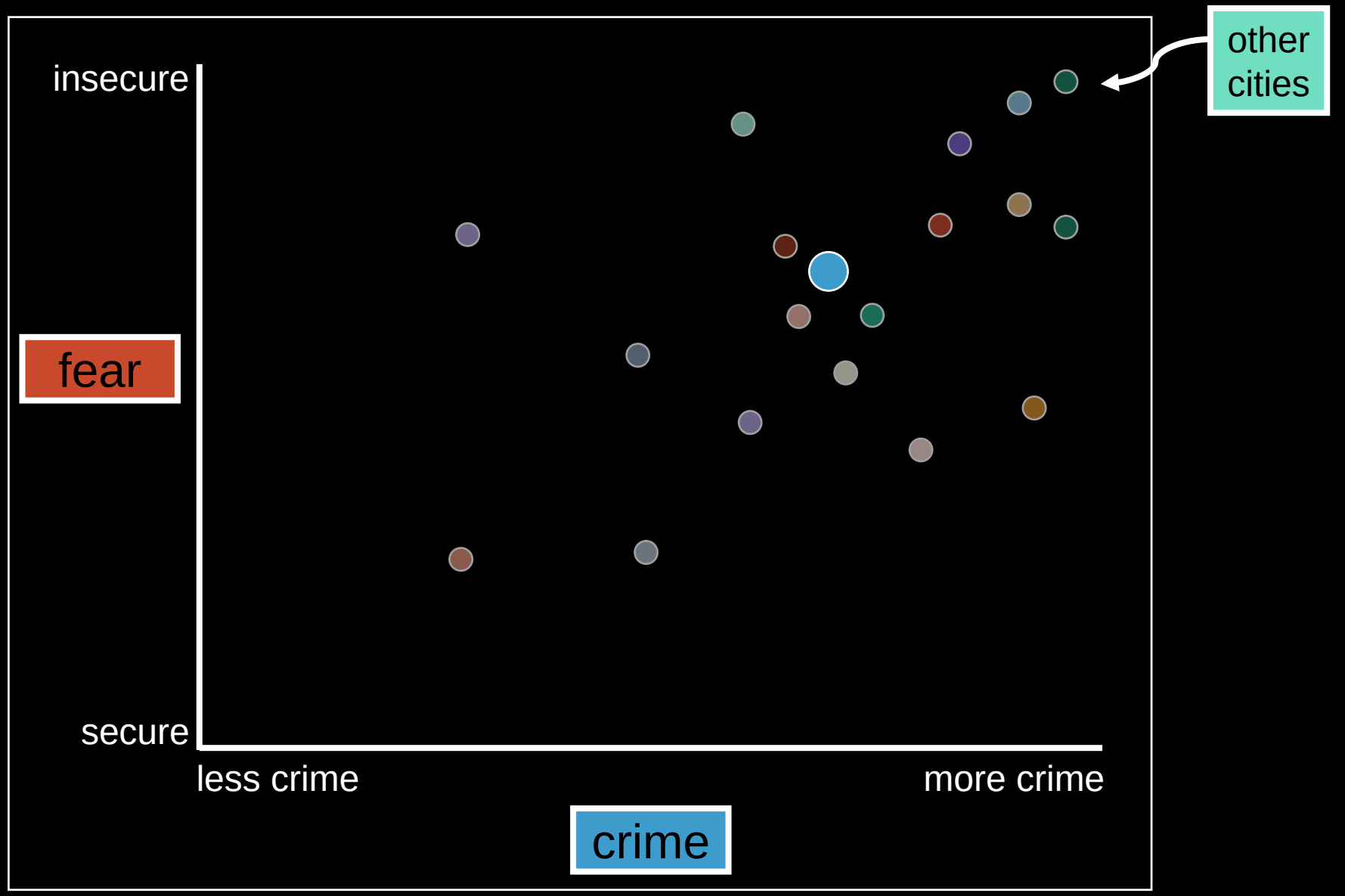
Rafael Prieto Curiel
Humberto González R

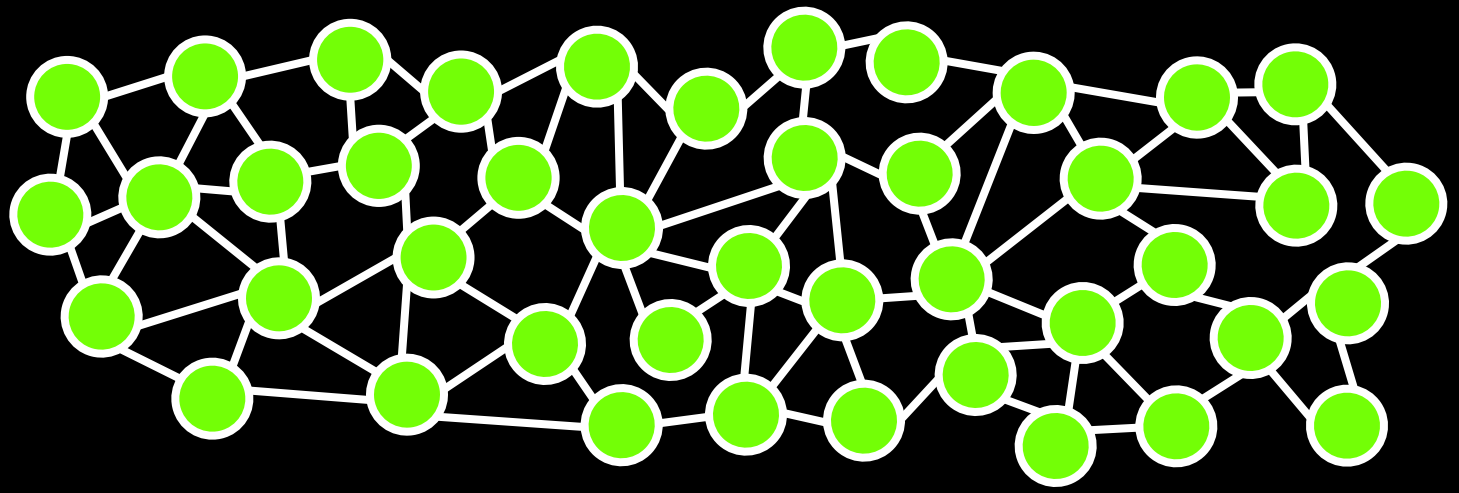
10 July 2021


insecure
fear
secure
less crime
more crime
crime
Mexico City


insecure
fear
secure
less crime
more crime
crime


insecure
2011
2010
2008
fear
2009
secure
less crime
more crime
crime


insecure
fear
secure
less crime
more crime
crime
other cities

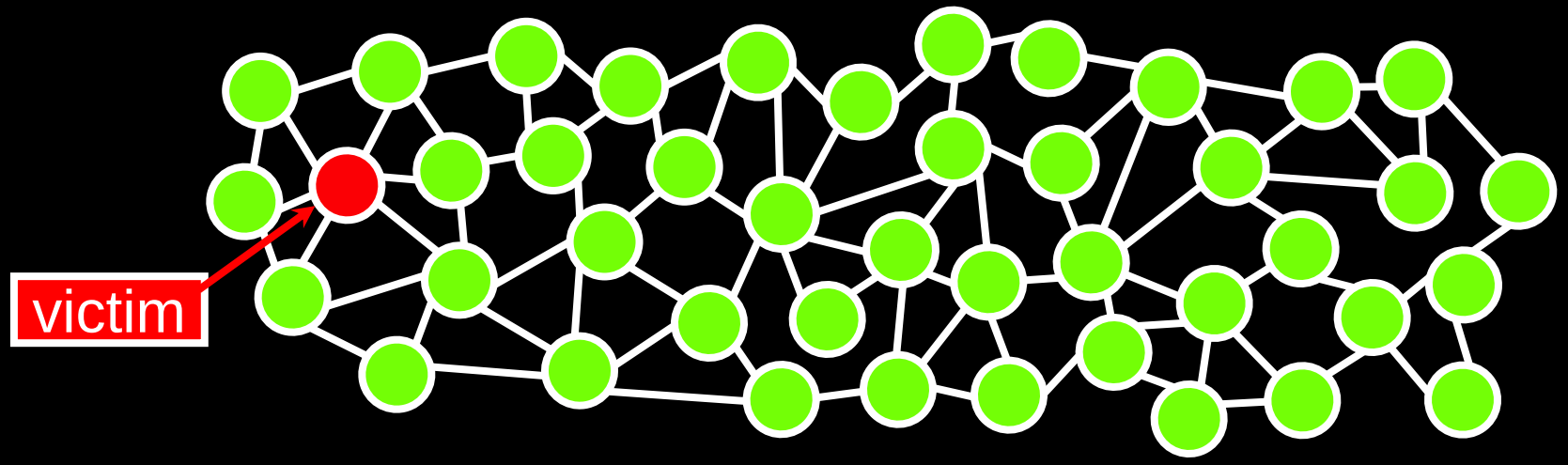


fear of crime

secure insecure

not victim

victim

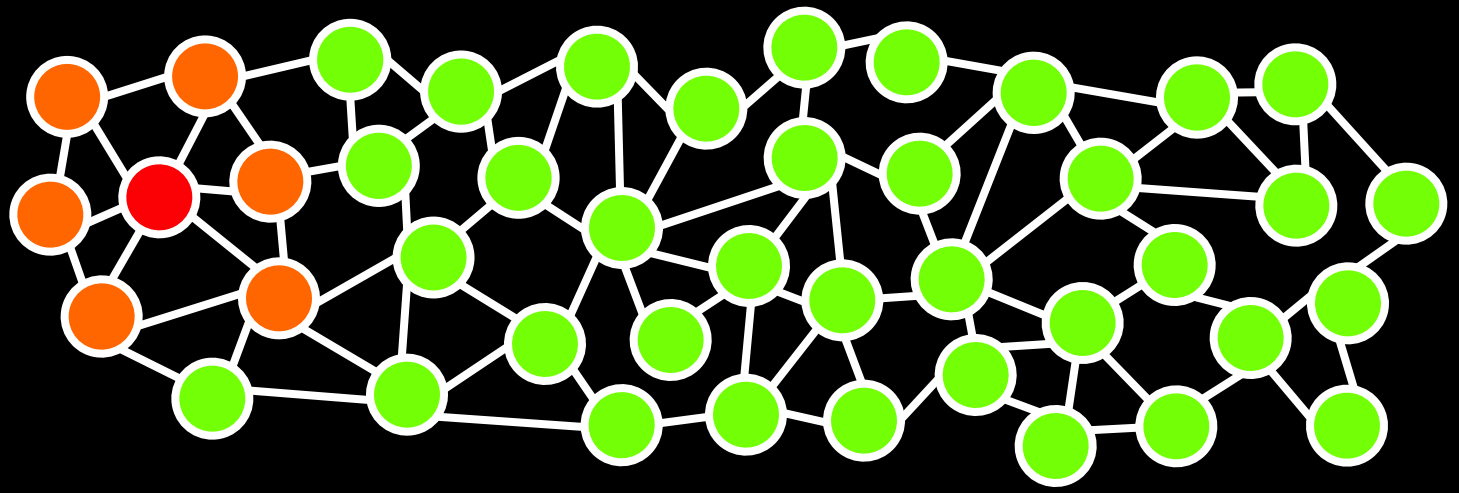


fear of crime

secure insecure

not victim

victim

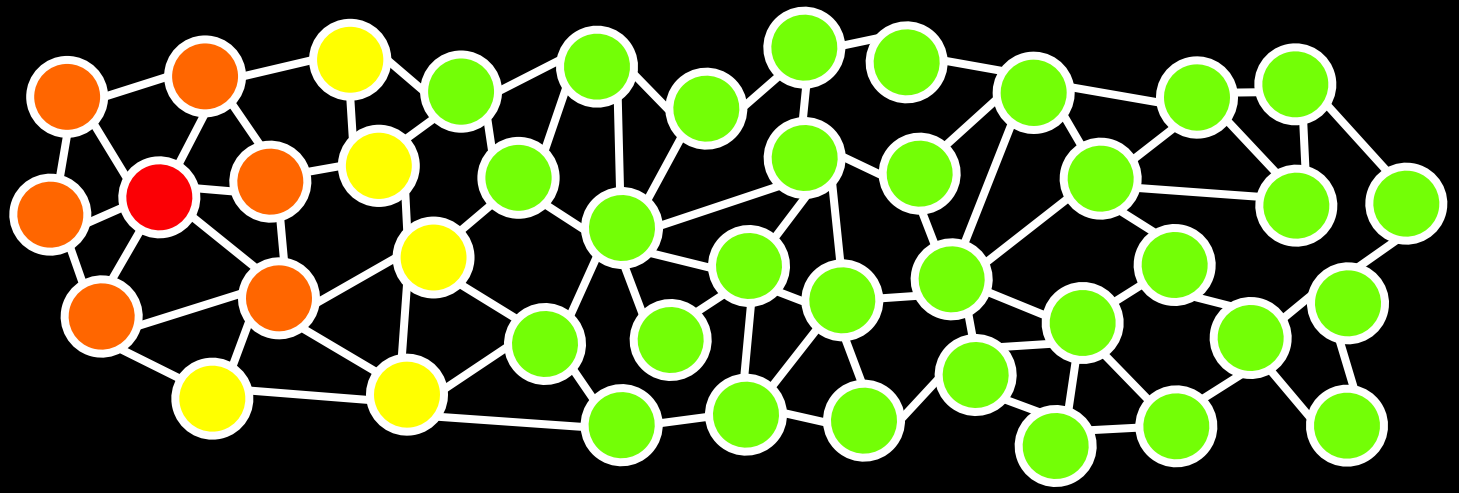


fear of crime

secure insecure

not victim

victim

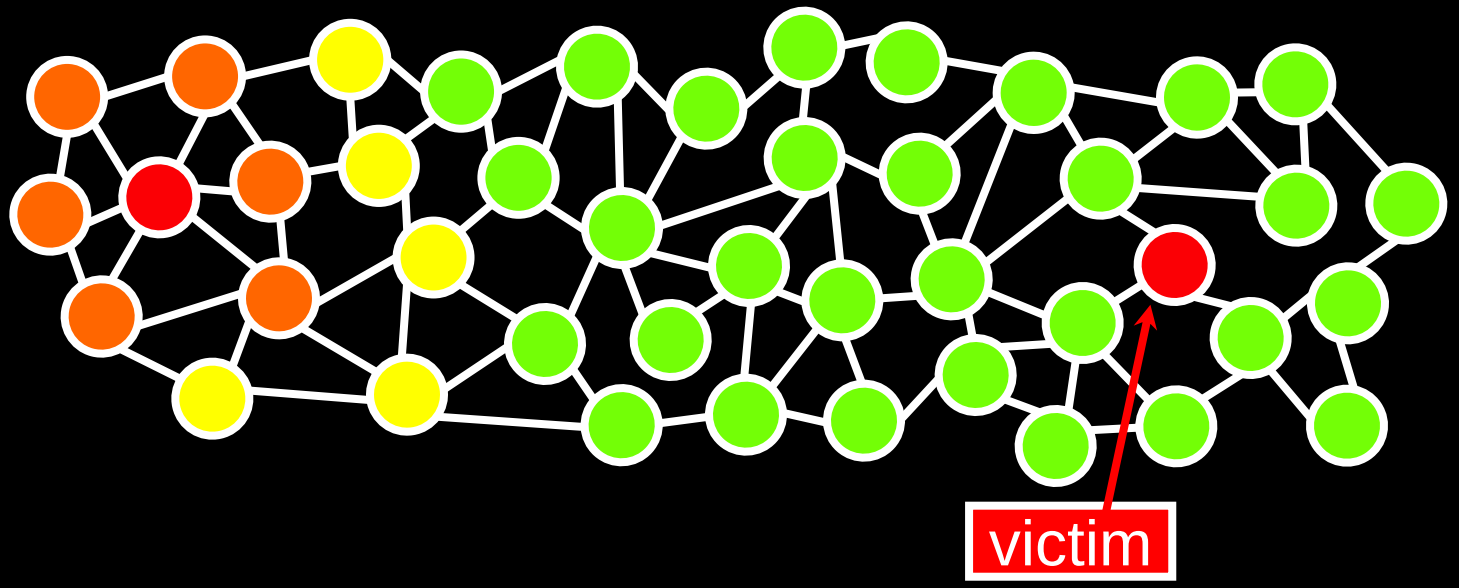


fear of crime

secure insecure

not victim

victim

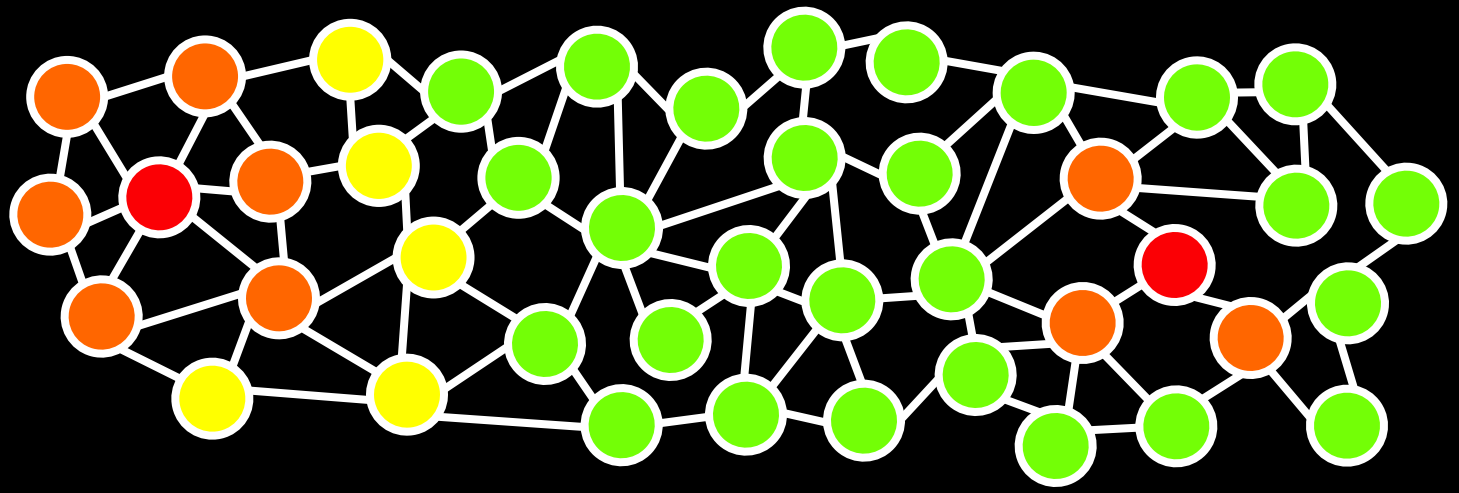


fear of crime

secure insecure

not victim

victim

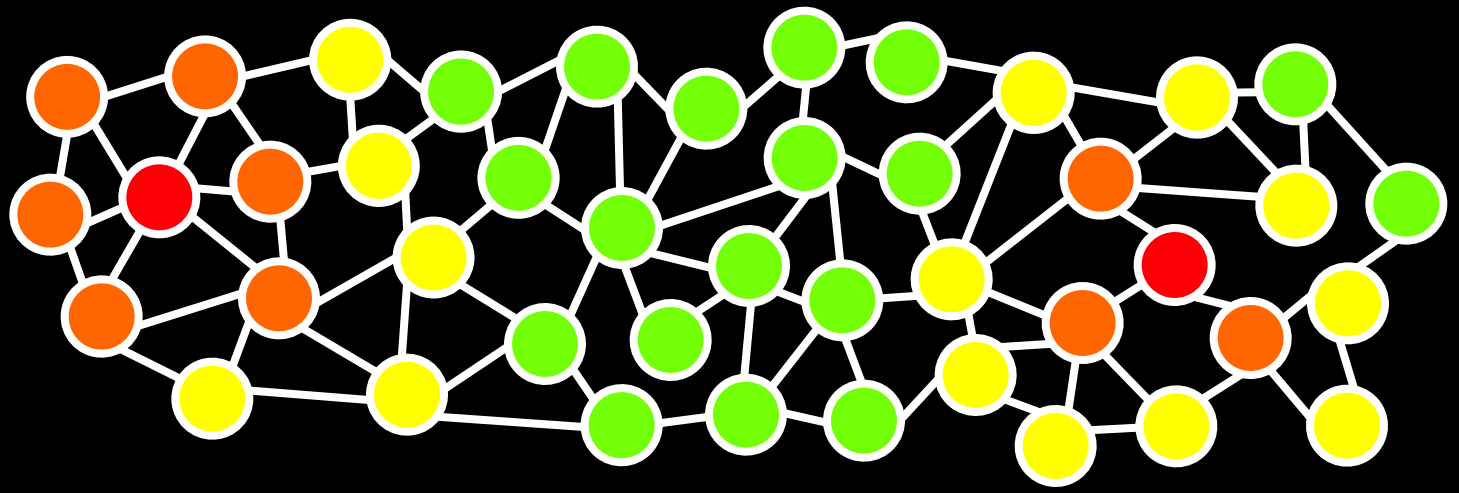


fear of crime

secure insecure

not victim

victim

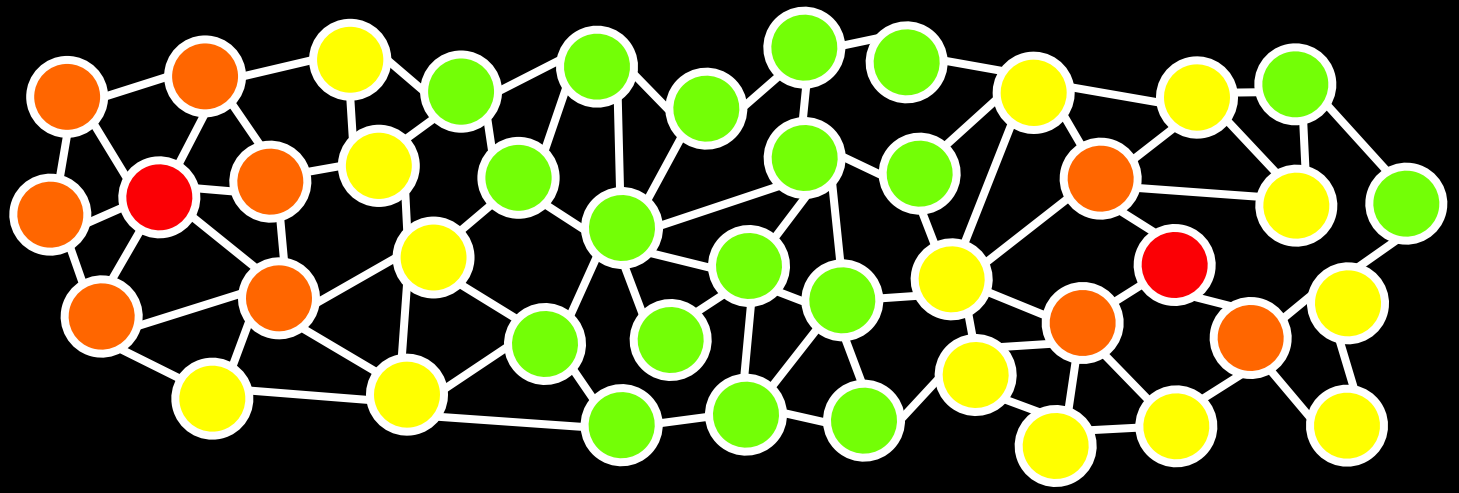


fear of crime

secure insecure

not victim

victim



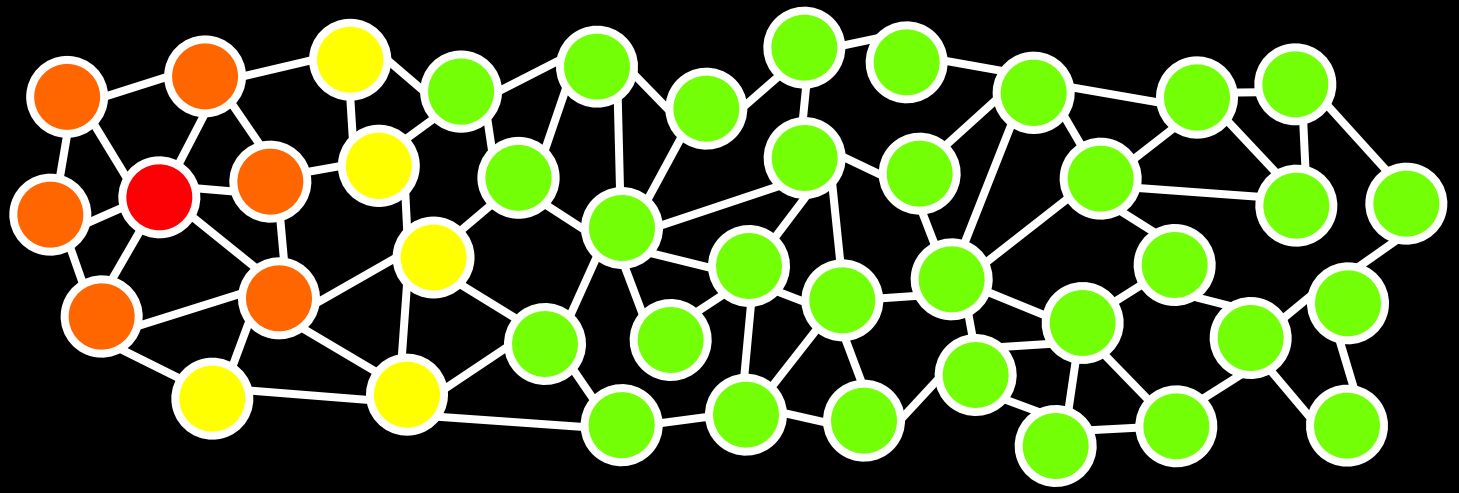
mean fear

fear of crime

secure insecure

not victim

victim

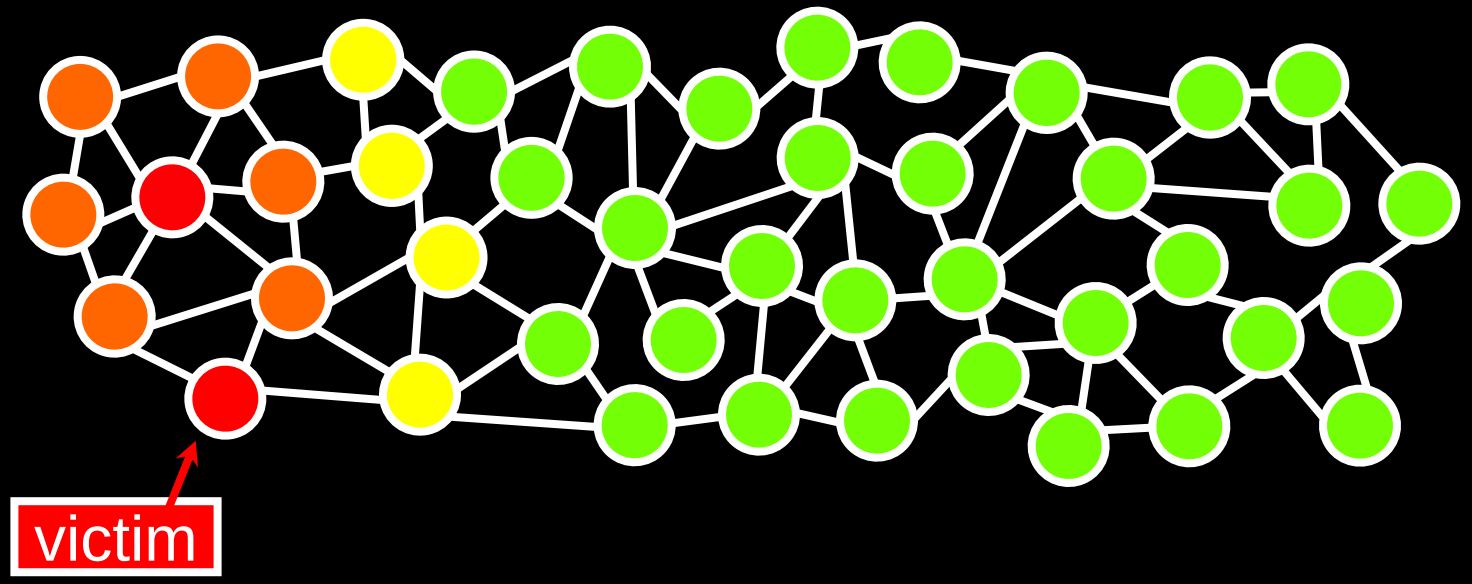


fear of crime

secure insecure

not victim

victim

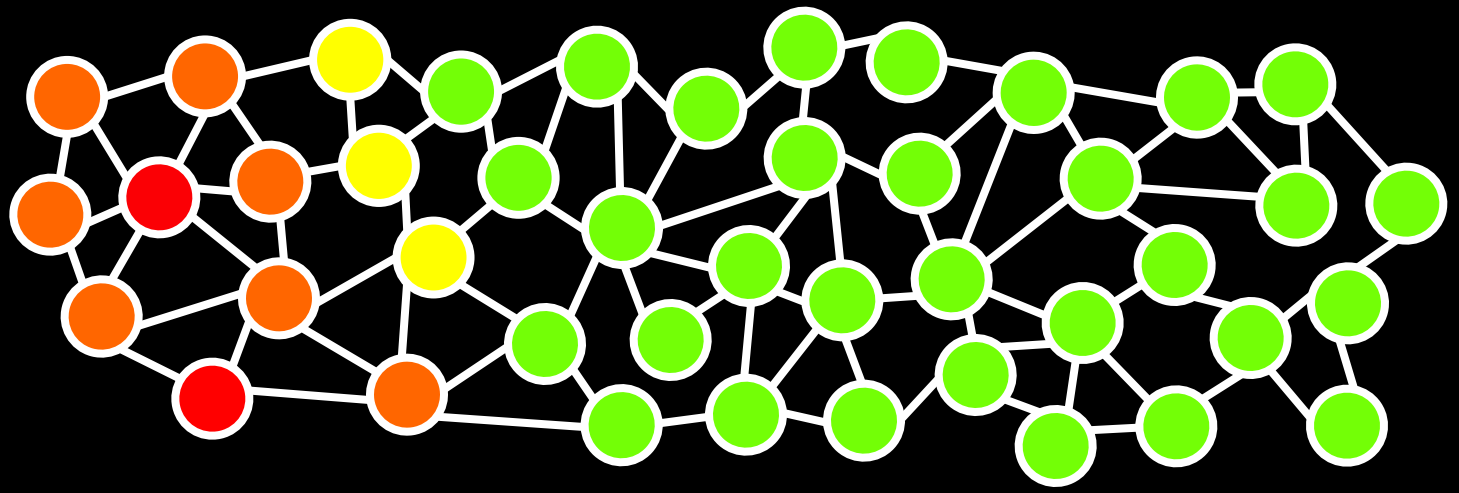


fear of crime

secure insecure

not victim

victim

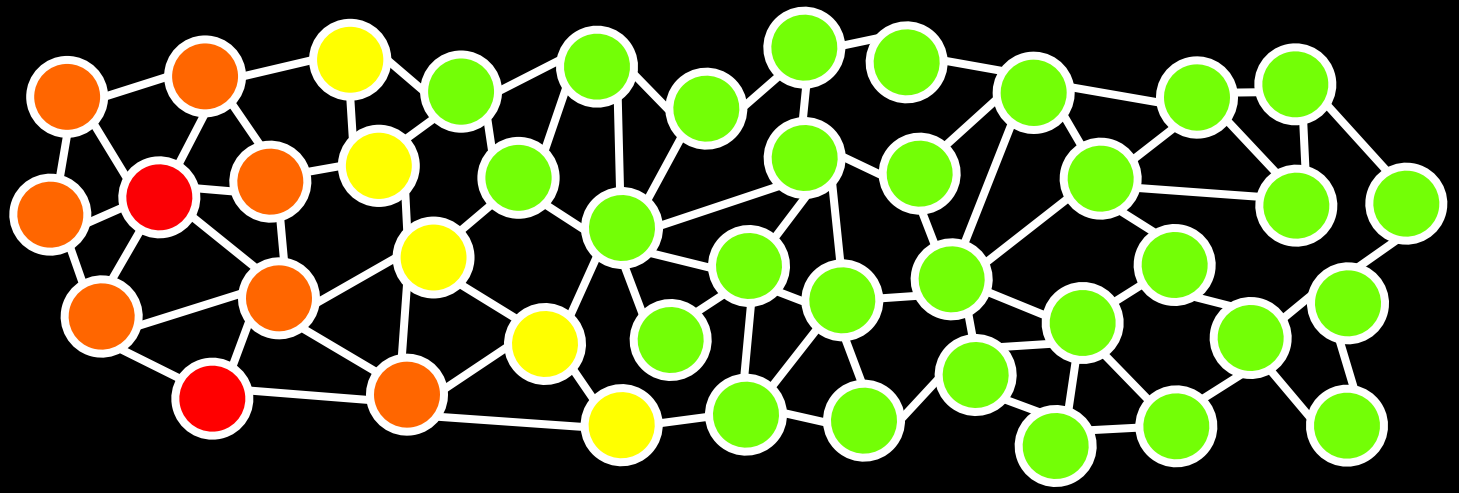


fear of crime

secure insecure

not victim

victim

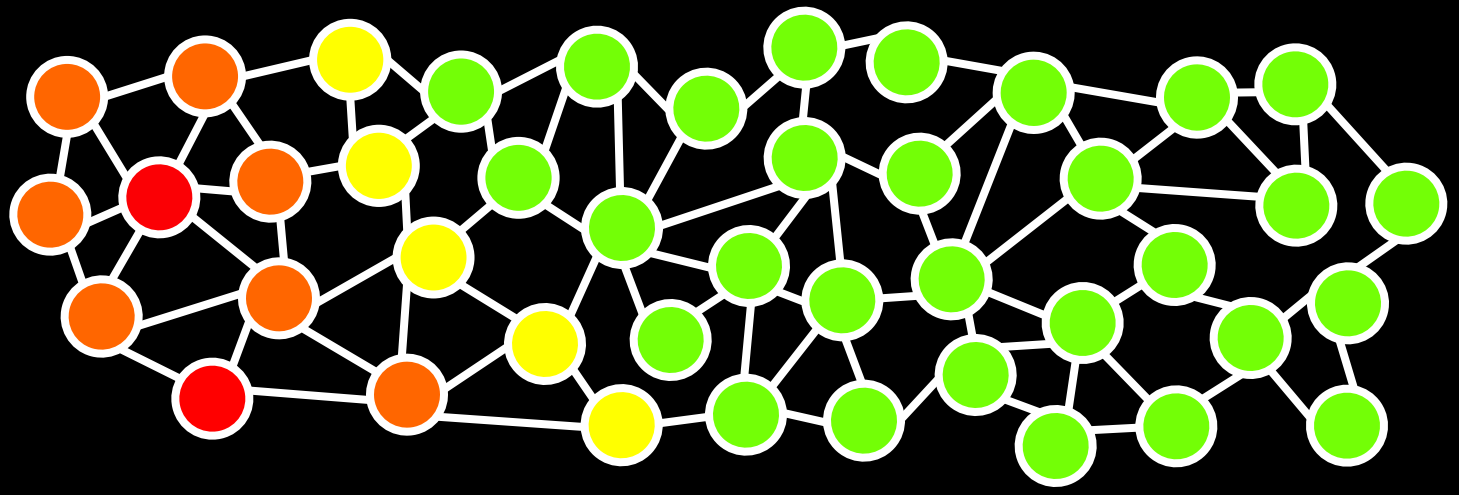


fear of crime

secure insecure

not victim

victim



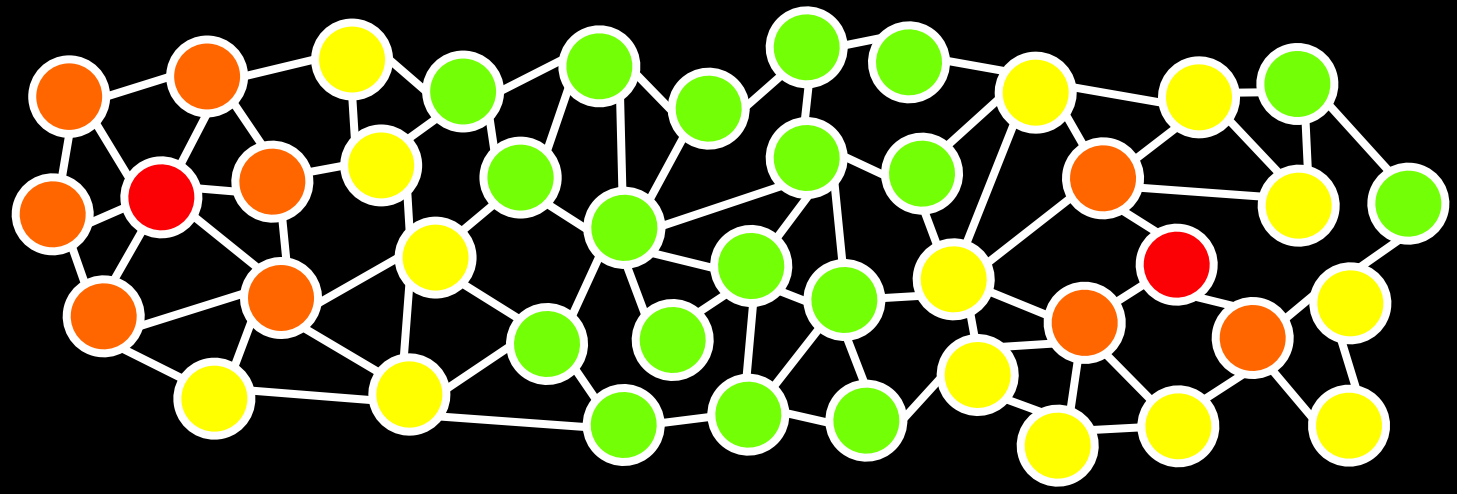
mean fear

fear of crime

secure insecure

not victim

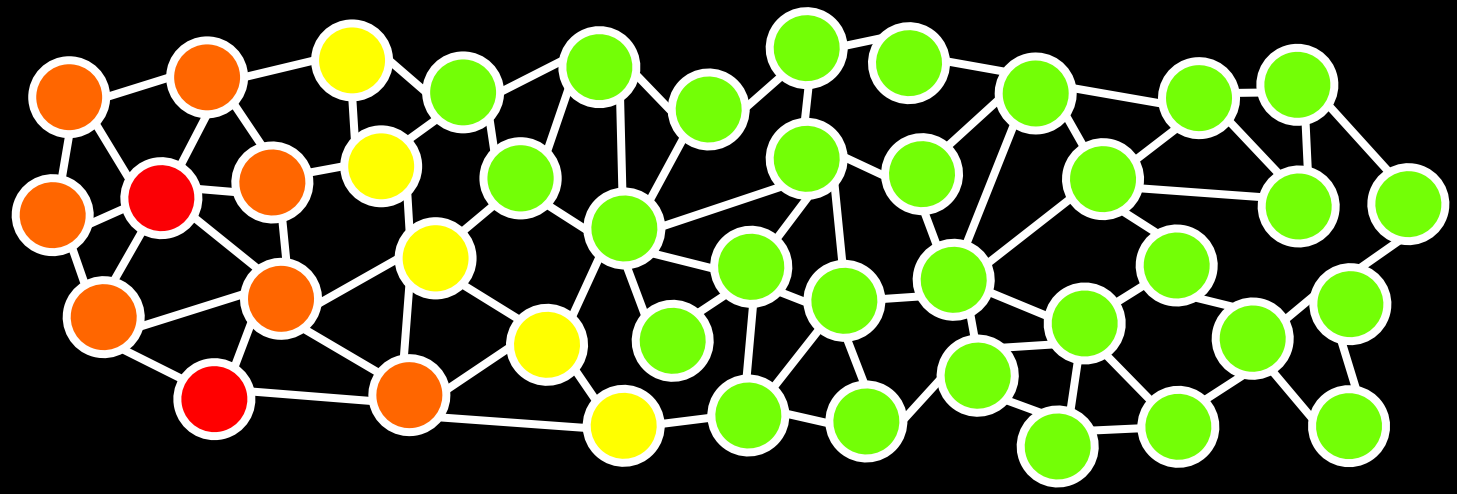
victim



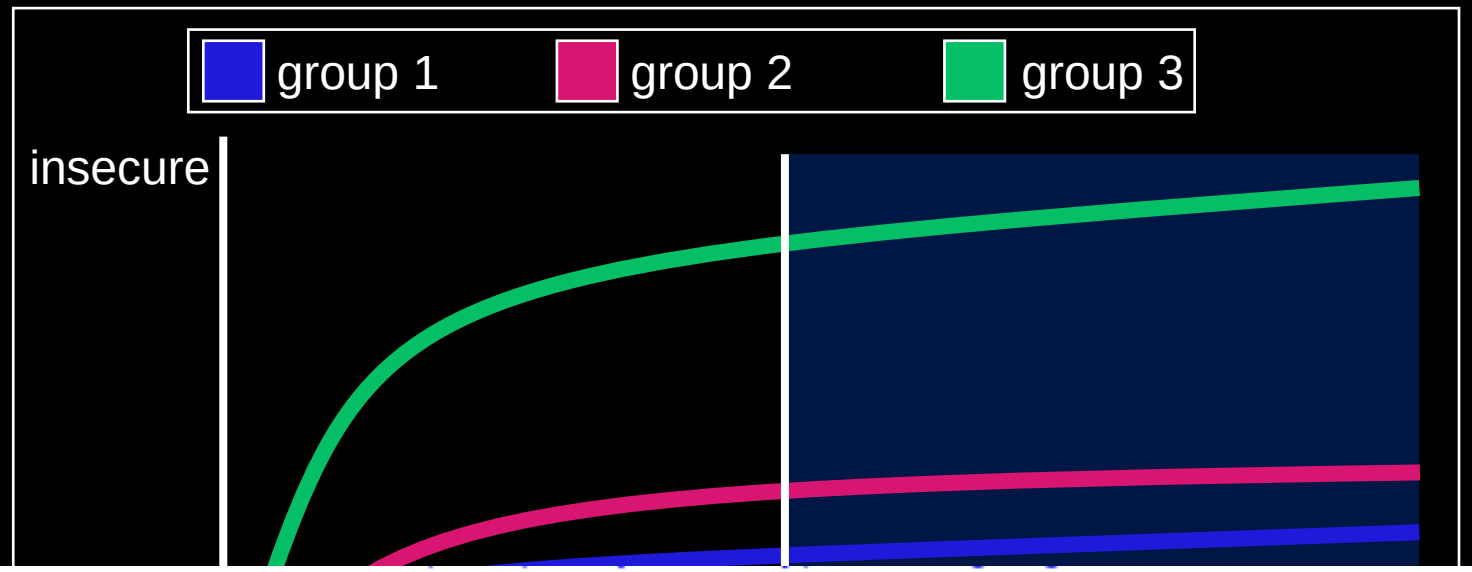
mean fear

fear of crime

secure insecure



mean fear



PROCEEDINGS A

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Modelling the fear of crime

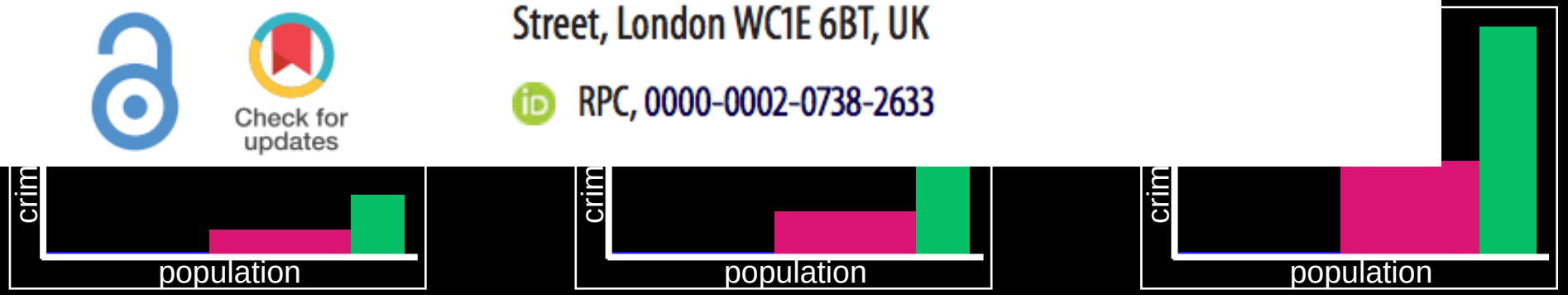
Rafael Prieto Curiel and Steven Bishop

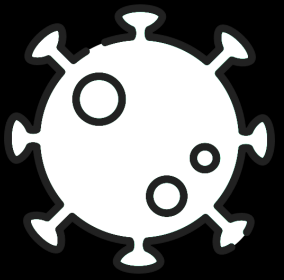
Department of Mathematics, University College London, Gower Street, London WC1E 6BT, UK

RPC, 0000-0002-0738-2633

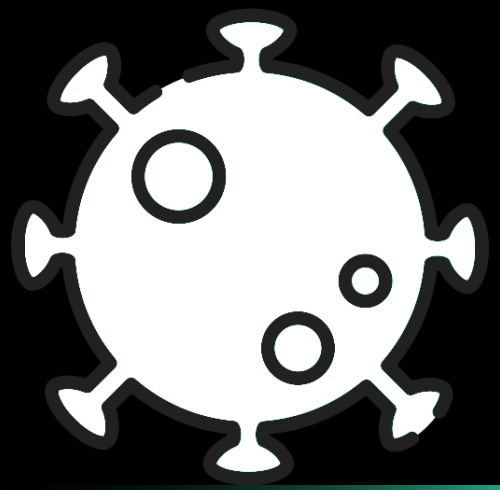
Research

Check for updates





Virus propagation
Vaccination strategies
Antivaccine views



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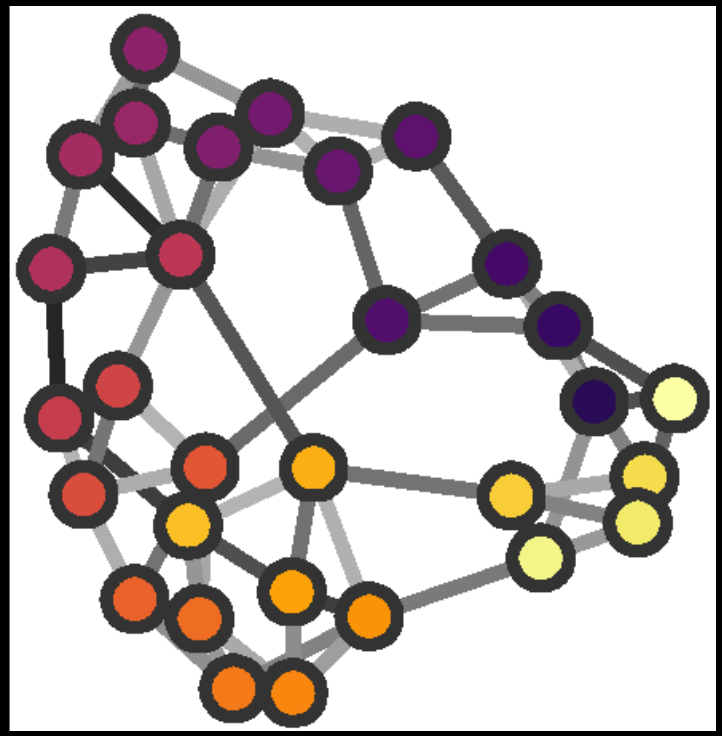

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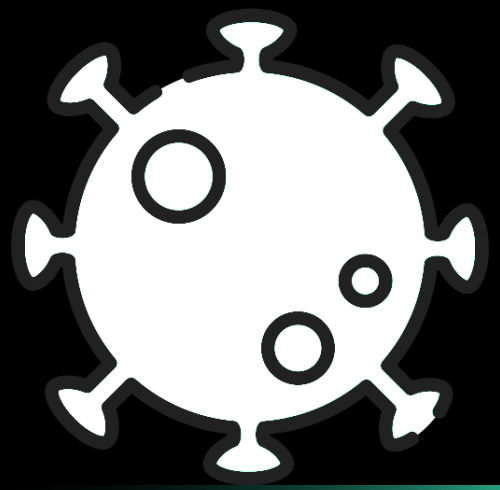

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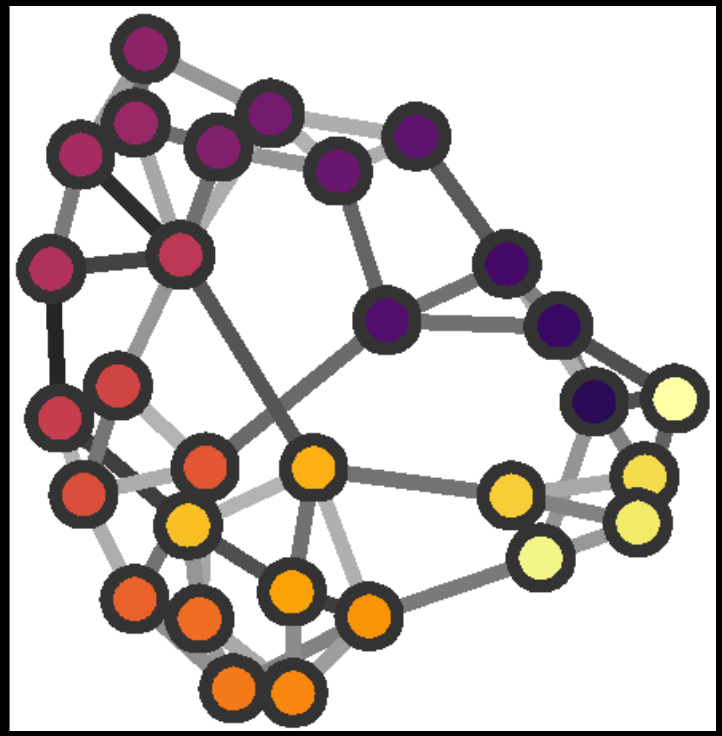

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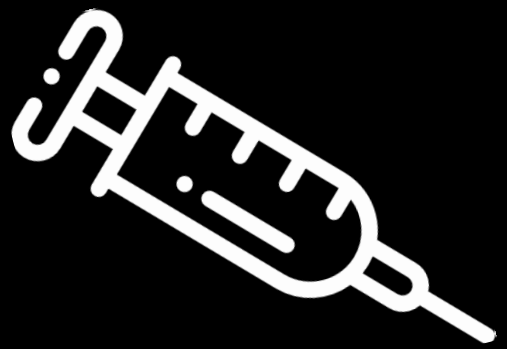
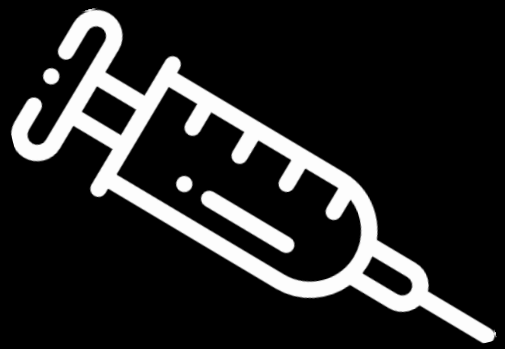
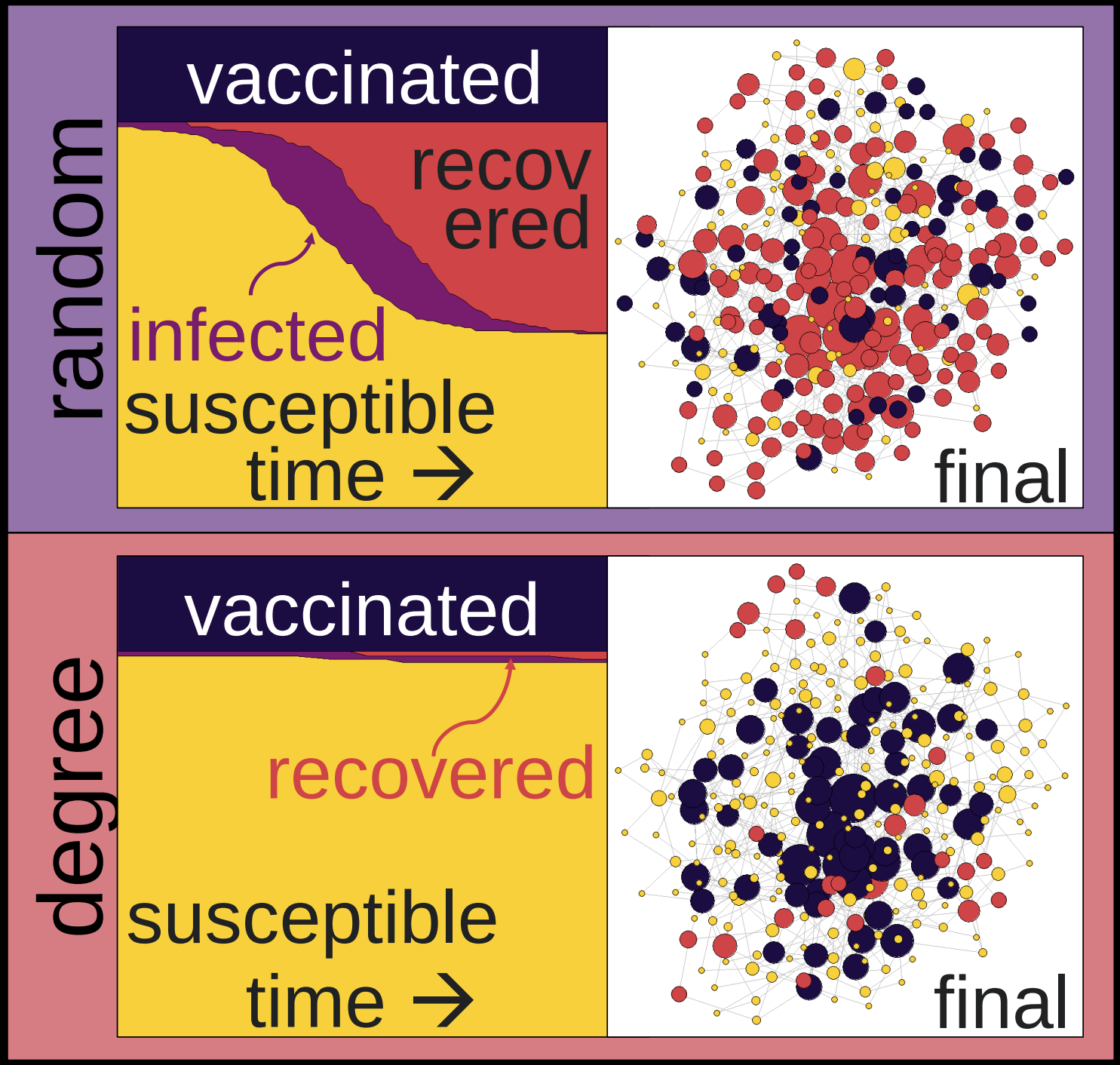


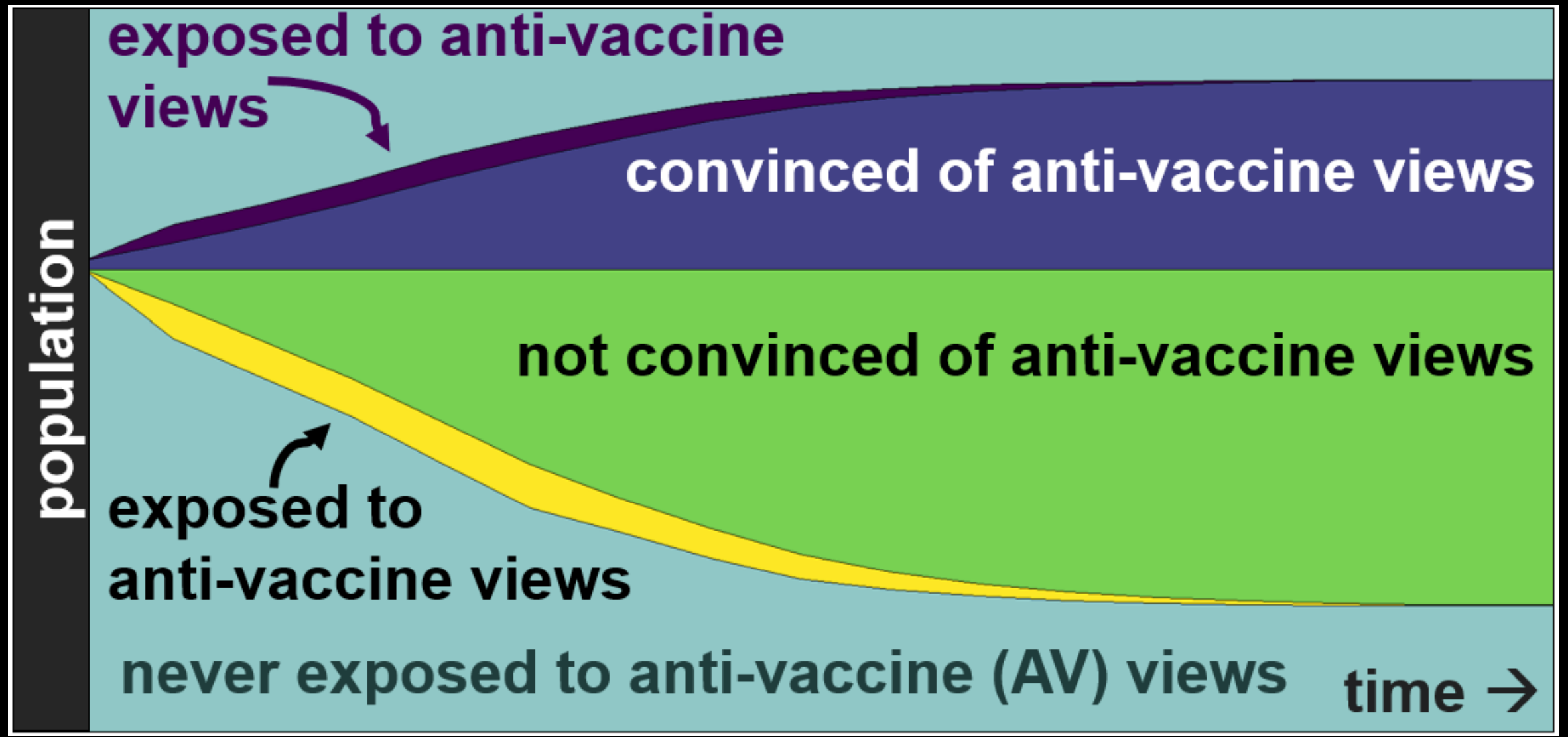
SVIR

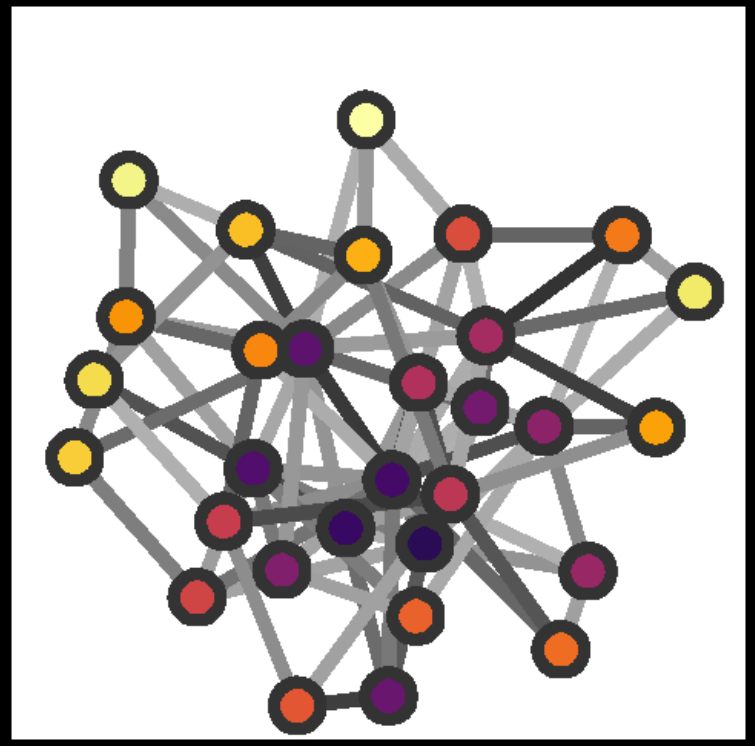


AntiVax

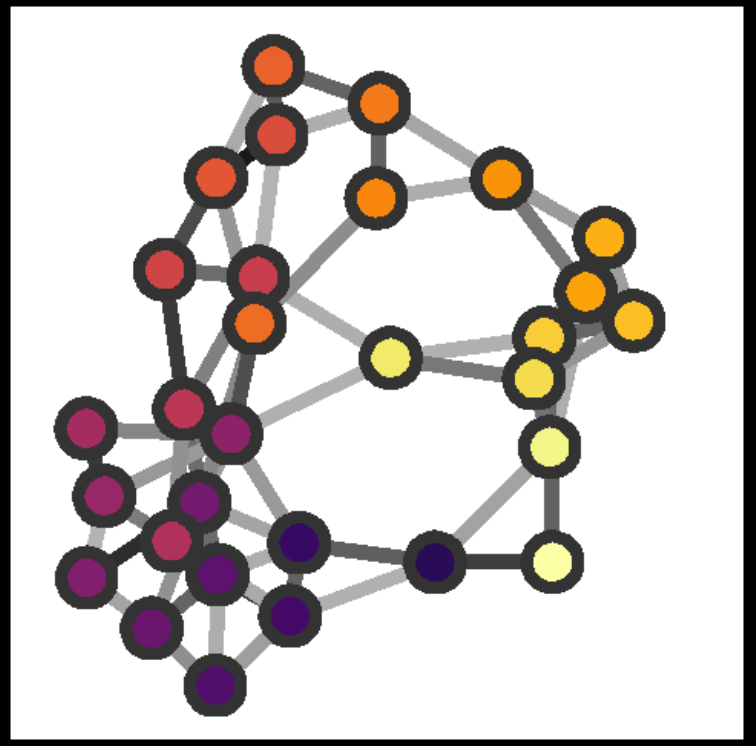
sVIR


random
vaccinated
recov
ered
infected
susceptible
time →
final
degree
vaccinated
recovered
susceptible
time →
final

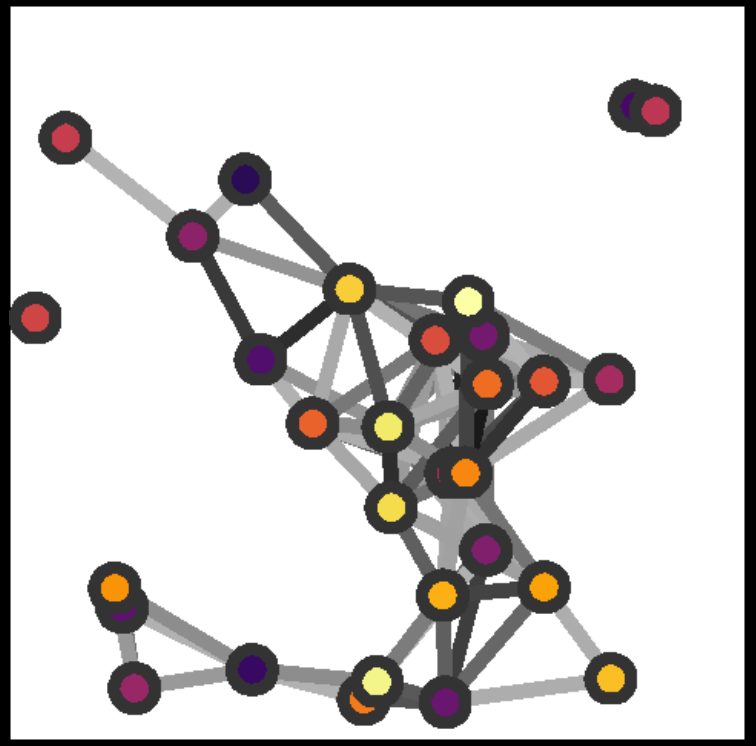

exposed to anti-vaccine views
convinced of anti-vaccine views
not convinced of anti-vaccine views
exposed to anti-vaccine views
never exposed to anti-vaccine (AV) views
population
time →



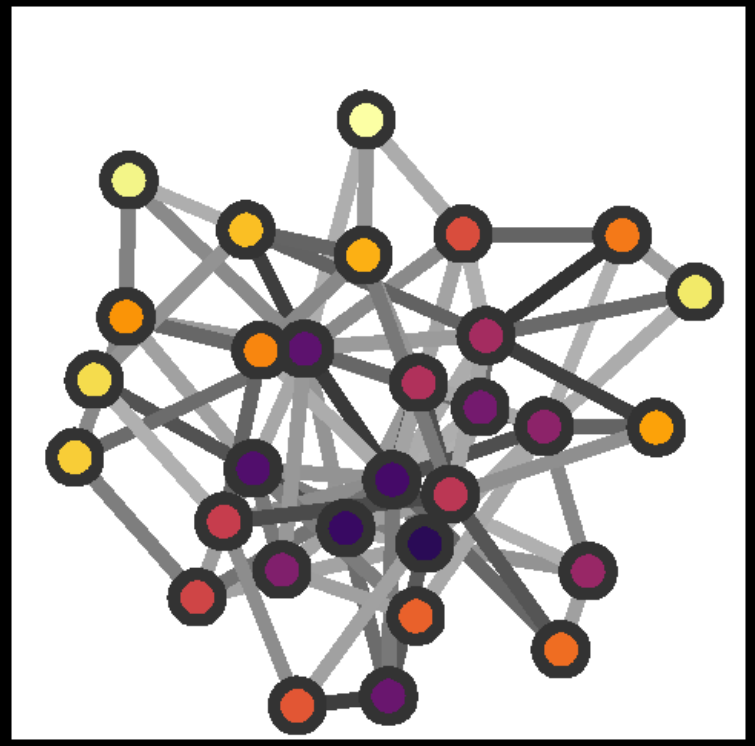
scale-free



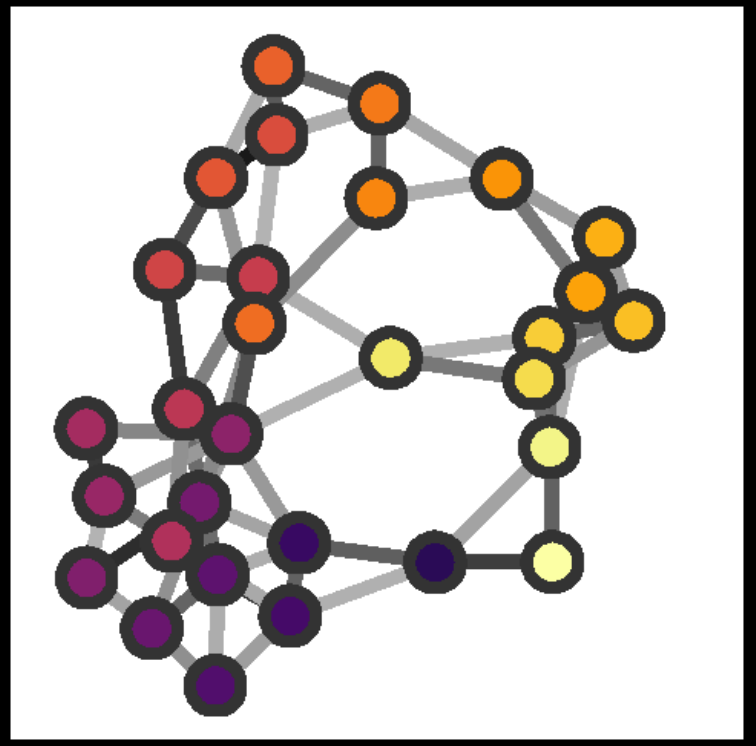
small-world



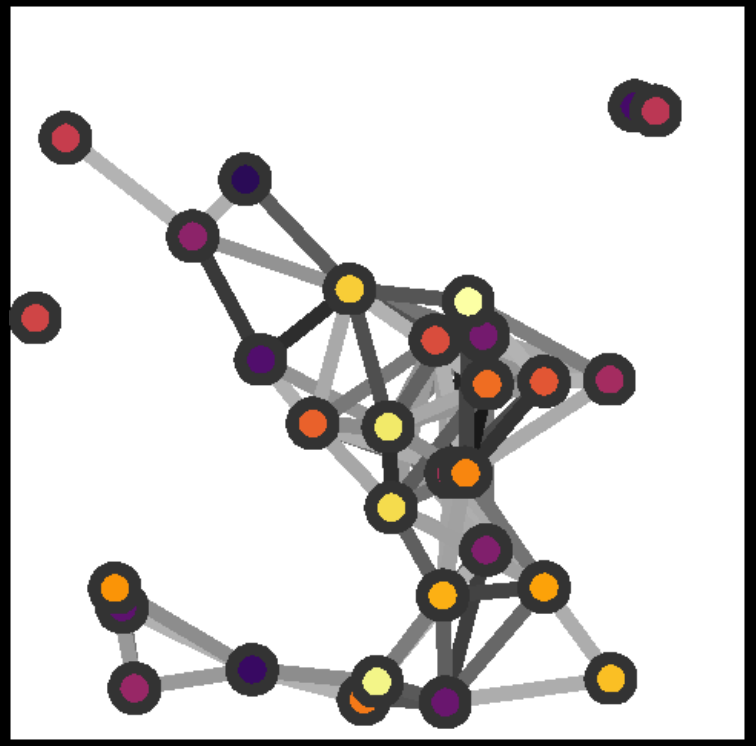
proximity



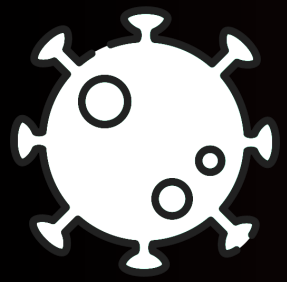
scale-free

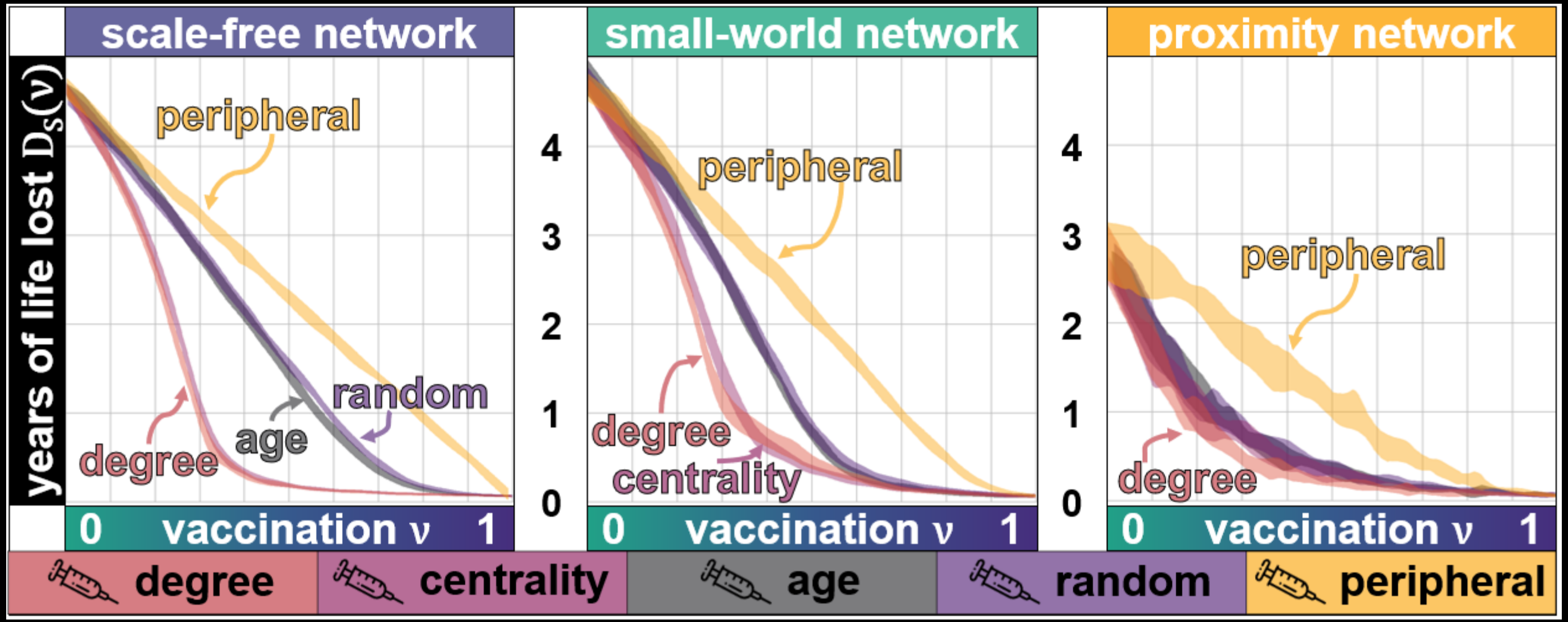


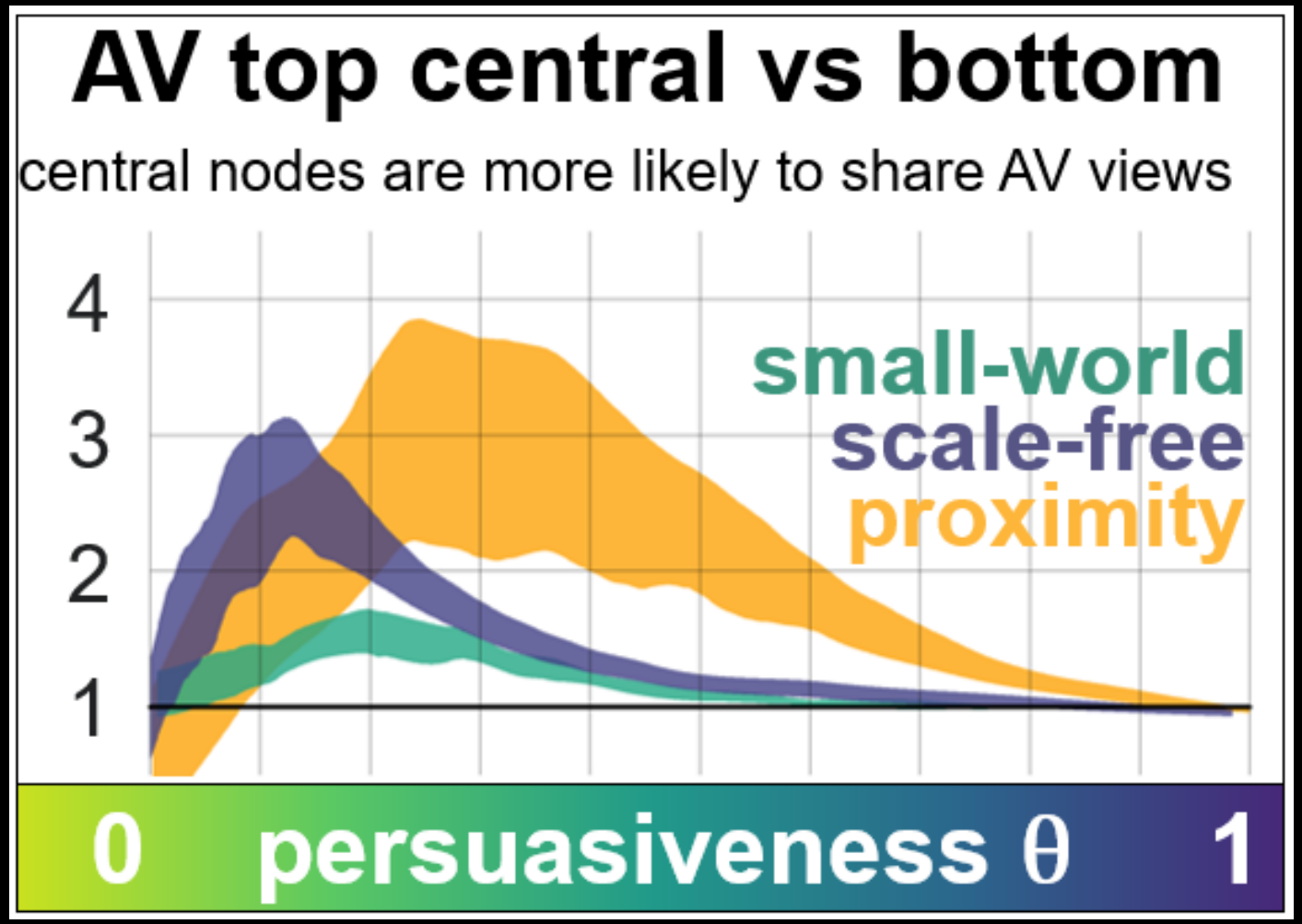
small-world

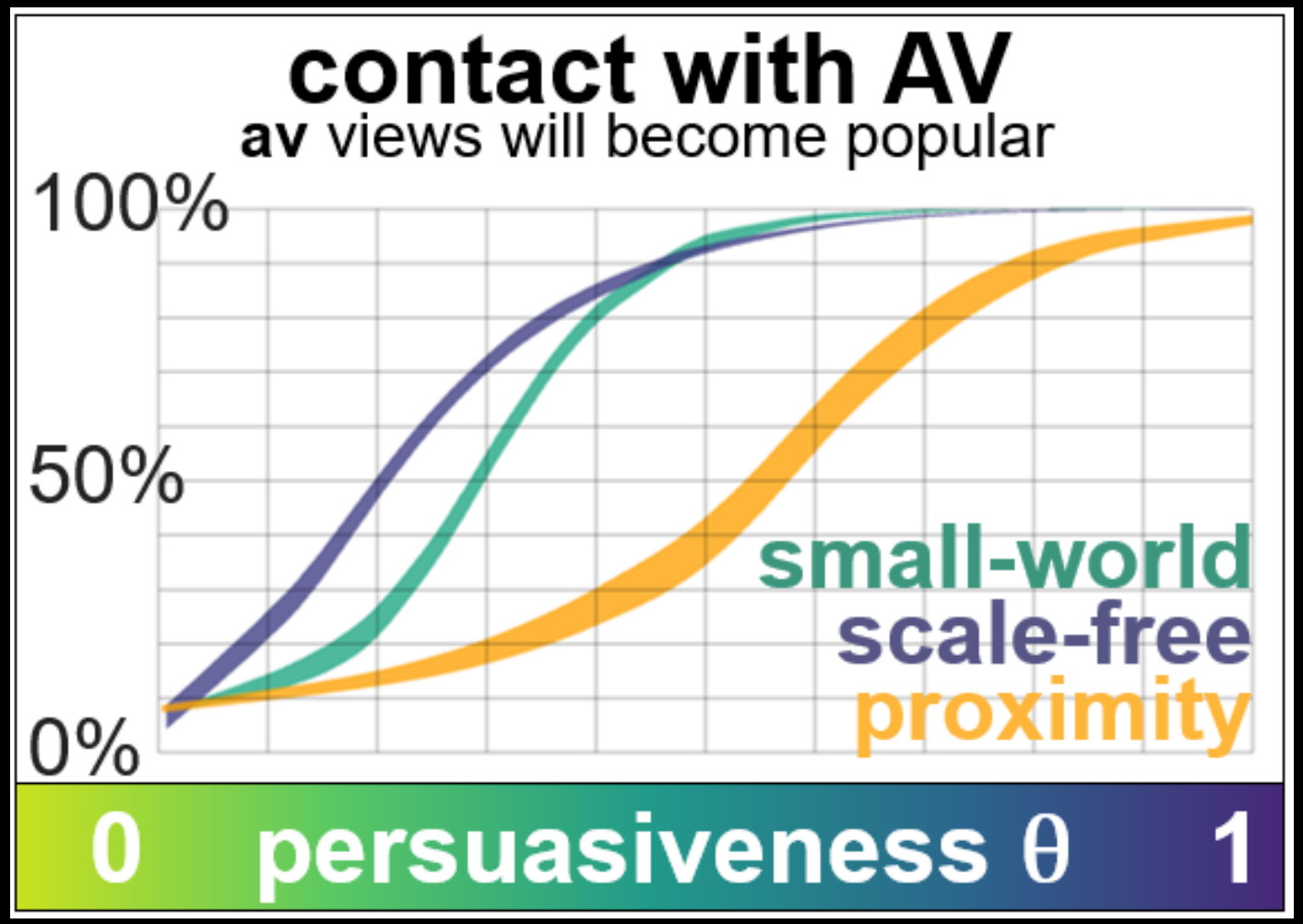


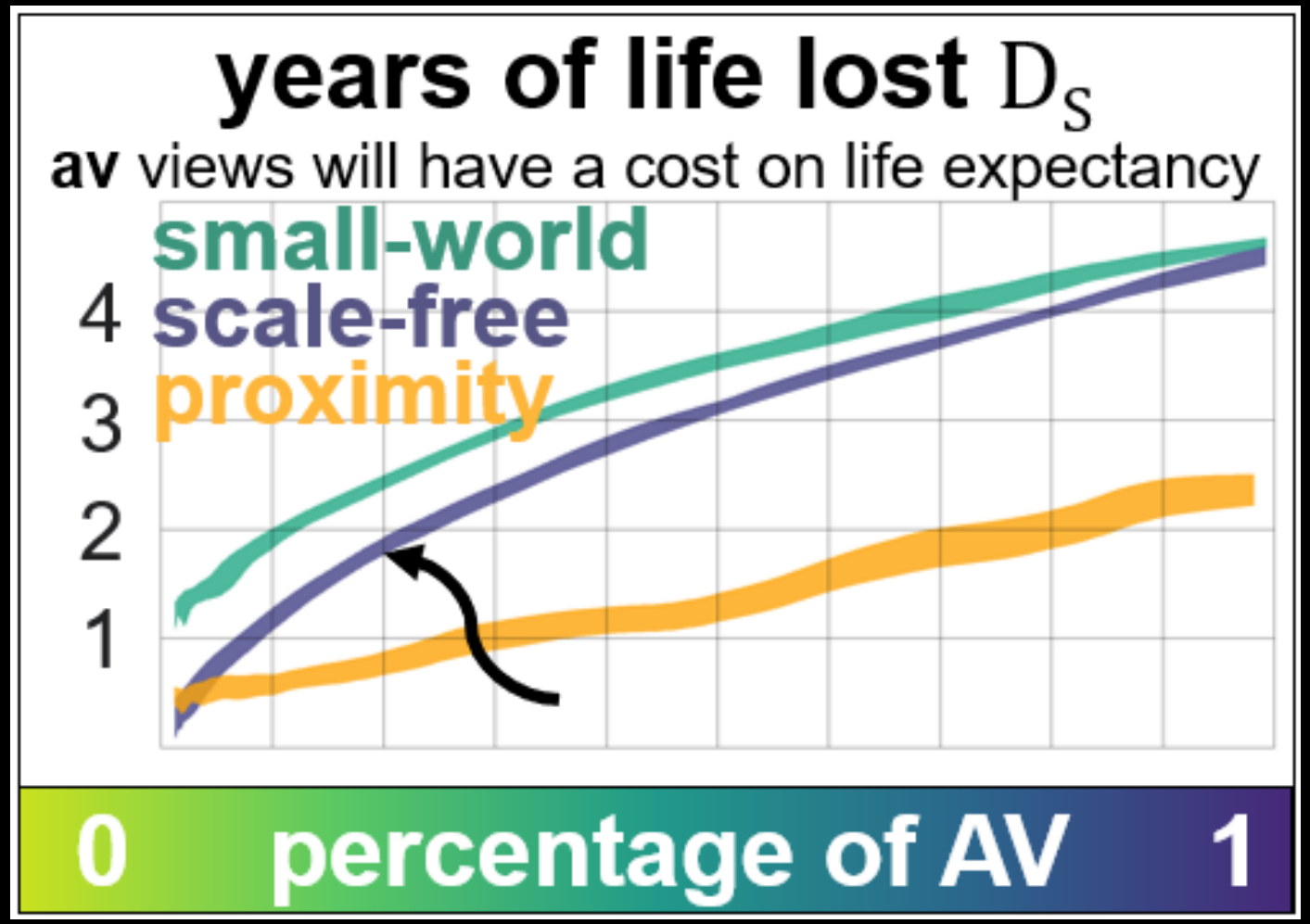
proximity




scale-free network
small-world network
proximity network
years of life lost $D_s(\nu)$
peripheral
random
age
degree
centrality
4
3
2
1
0
0
vaccination ν
1
degree
centrality
age
random
peripheral


AV top central vs bottom
central nodes are more likely to share AV views
4
3
2
1
small-world
scale-free
proximity
0
persuasiveness θ
1


contact with AV
av views will become popular
100%
50%
0%
small-world
scale-free
proximity
0
persuasiveness θ
1

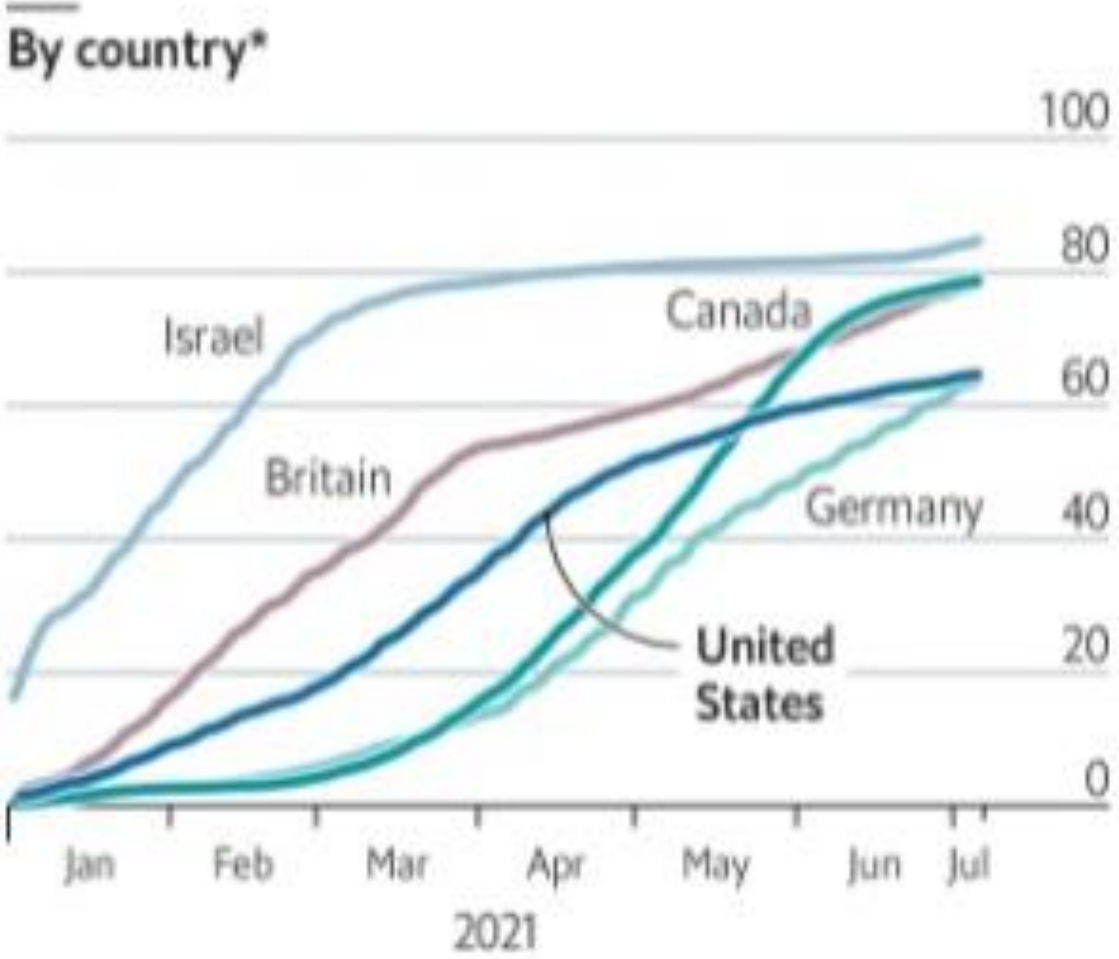

years of life lost D_S
av views will have a cost on life expectancy
small-world
scale-free
proximity
4
3
2
1
0
percentage of AV
1

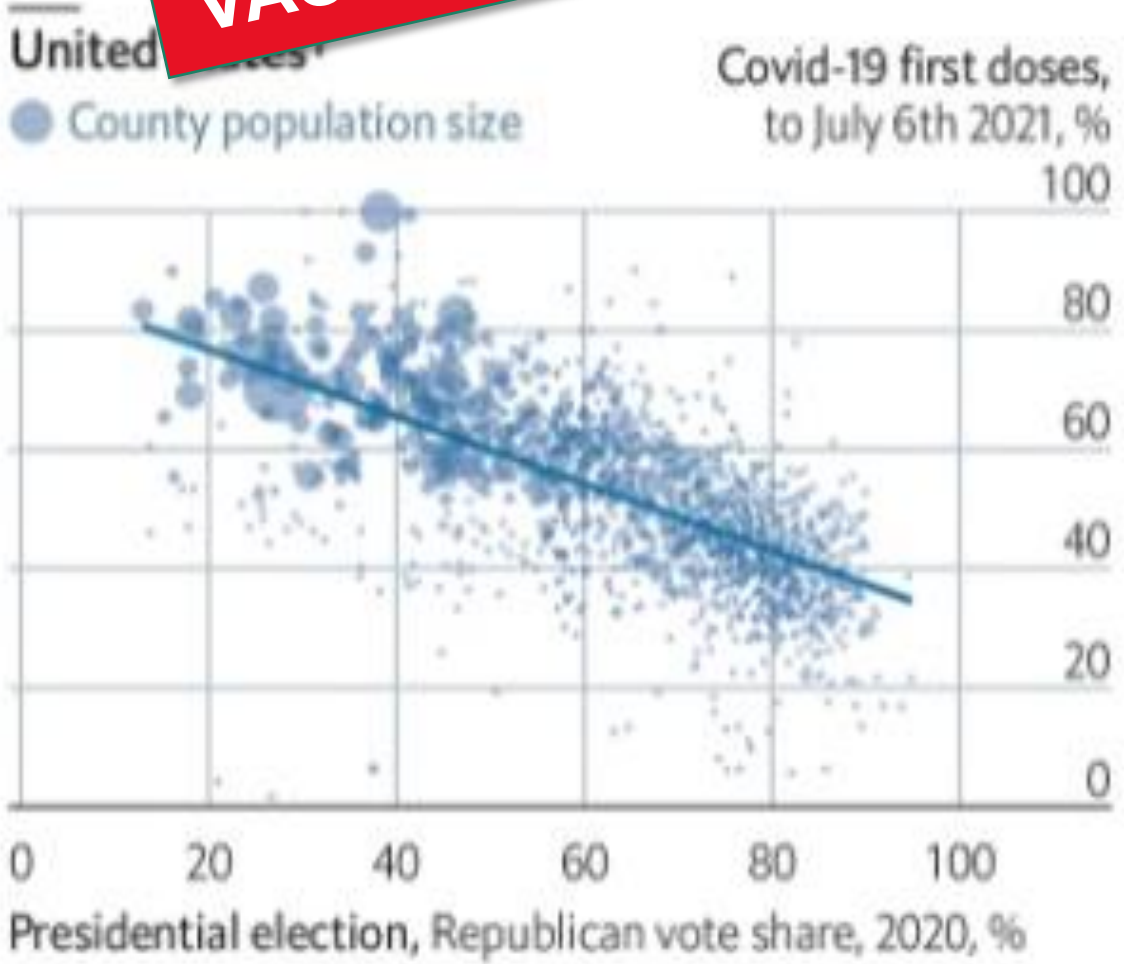
Why has America's vaccination programme slowed so much?

VACCINATION IN THE US!

Politics trumps patriotism

Covid-19, first dose vaccinations, % of population





Sources: CDC; Our World in Data; UN; MIT Election Data and Science Lab; *The Economist*

*Aged 12+ †Aged 18+

scientific reports

Check for updates

OPEN

Vaccination strategies against COVID-19 and the diffusion of anti-vaccination views

Rafael Prieto Curiel[1] & Humberto González Ramírez[2]

nexos

MÁS DE 13 MILLONES 300 MIL CANASTAS

UN GOBIERNO QUE NO SE DETIENE

EDOMÉX
DECISIONES FIRMES, RESULTADOS FUERTES.
GOBIERNO DEL ESTADO DE MÉXICO

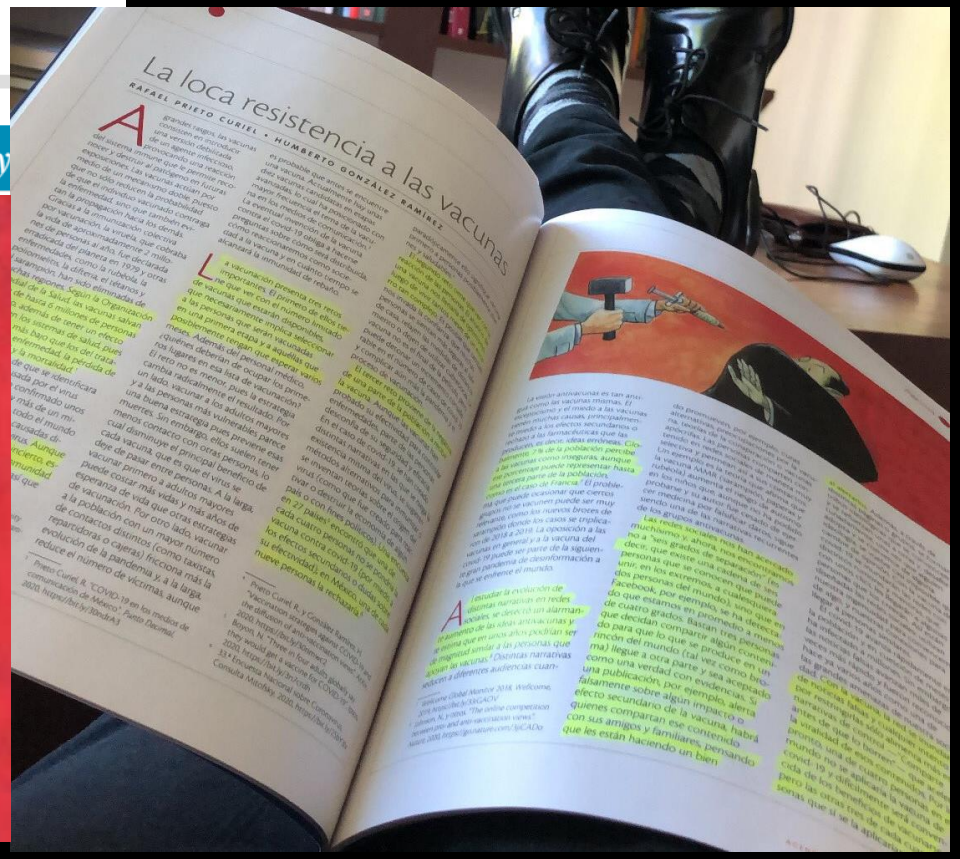
La loca resistencia a las vacunas

1 NOVIEMBRE, 2020

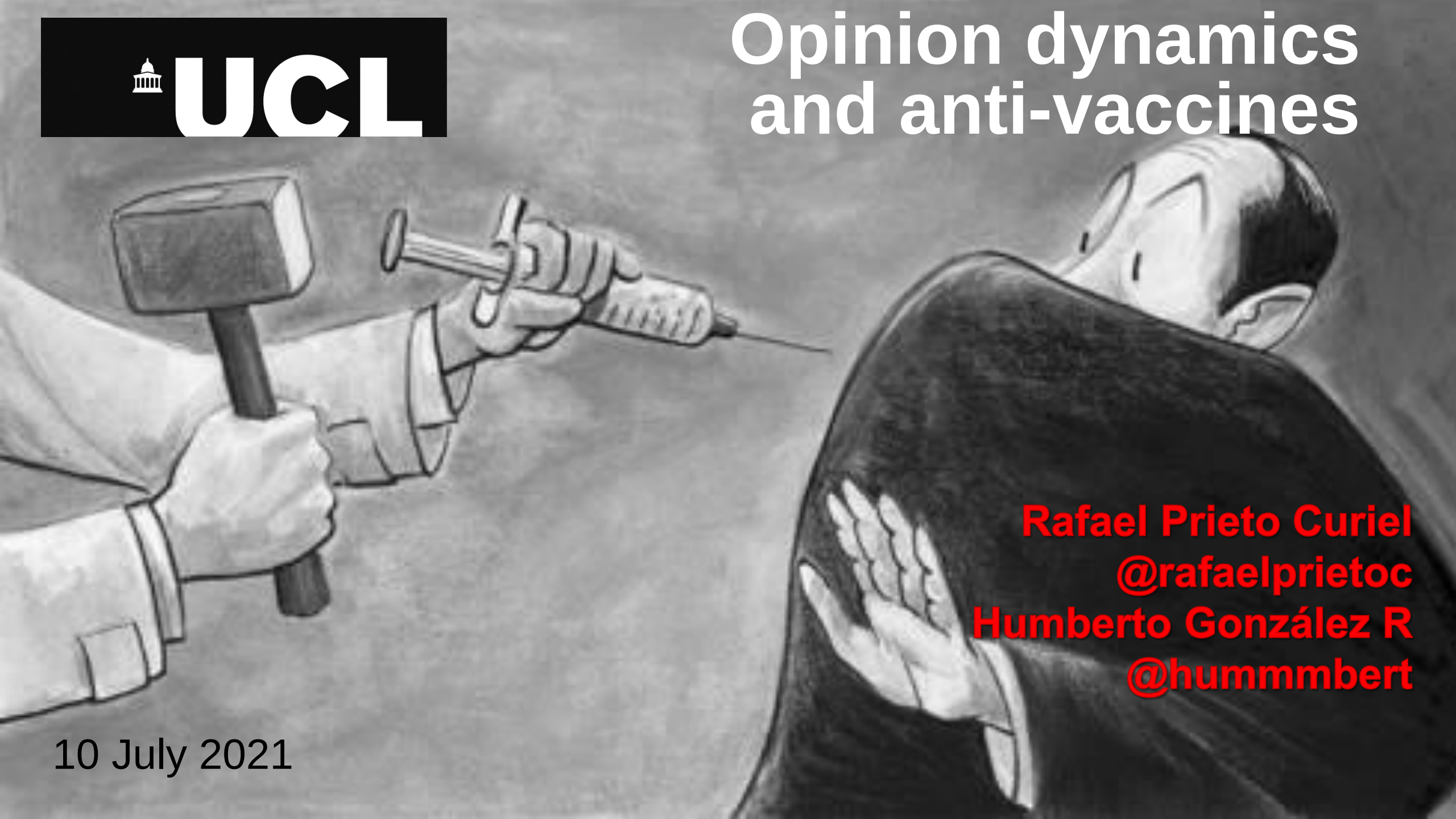
Rafael Prieto Curiel • Humberto González Ramírez

A quien nos lee,

nexos hoy



Opinion dynamics and anti-vaccines



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@rafaelprietoc
Humberto González R
@hummmbert

10 July 2021