

## Supplementary Materials for

### **Directed aging, memory, and nature's greed**

Nidhi Pashine\*, Daniel Hexner, Andrea J. Liu, Sidney R. Nagel

\*Corresponding author. Email: [npashine@uchicago.edu](mailto:npashine@uchicago.edu)

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#### **This PDF file includes:**

Evolution of the bulk and shear modulus as a function of time

Fig. S1. The evolution of the bulk and shear modulus as a function of time in simulations.

## Supplementary Materials

### Evolution of the bulk and shear modulus as a function of time

We consider how aging affects the elastic moduli in numerical simulations of our model. As the system ages the spring constants become weaker, reducing both the bulk modulus,  $B$ , and the shear modulus,  $G$ . Since the system is aged under compression, the bulk modulus becomes smaller than the shear modulus (see fig. S1). This results in a negative Poisson's ratio.

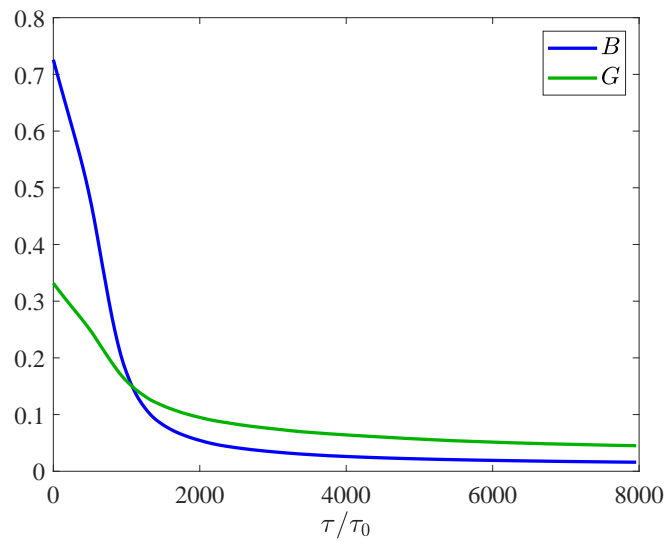


Fig. S1. The evolution of the bulk and shear modulus as a function of time in simulations. Here, the aging strain is the same as in Fig. 1E of the main text,  $|\epsilon_T| = 0.025$ .