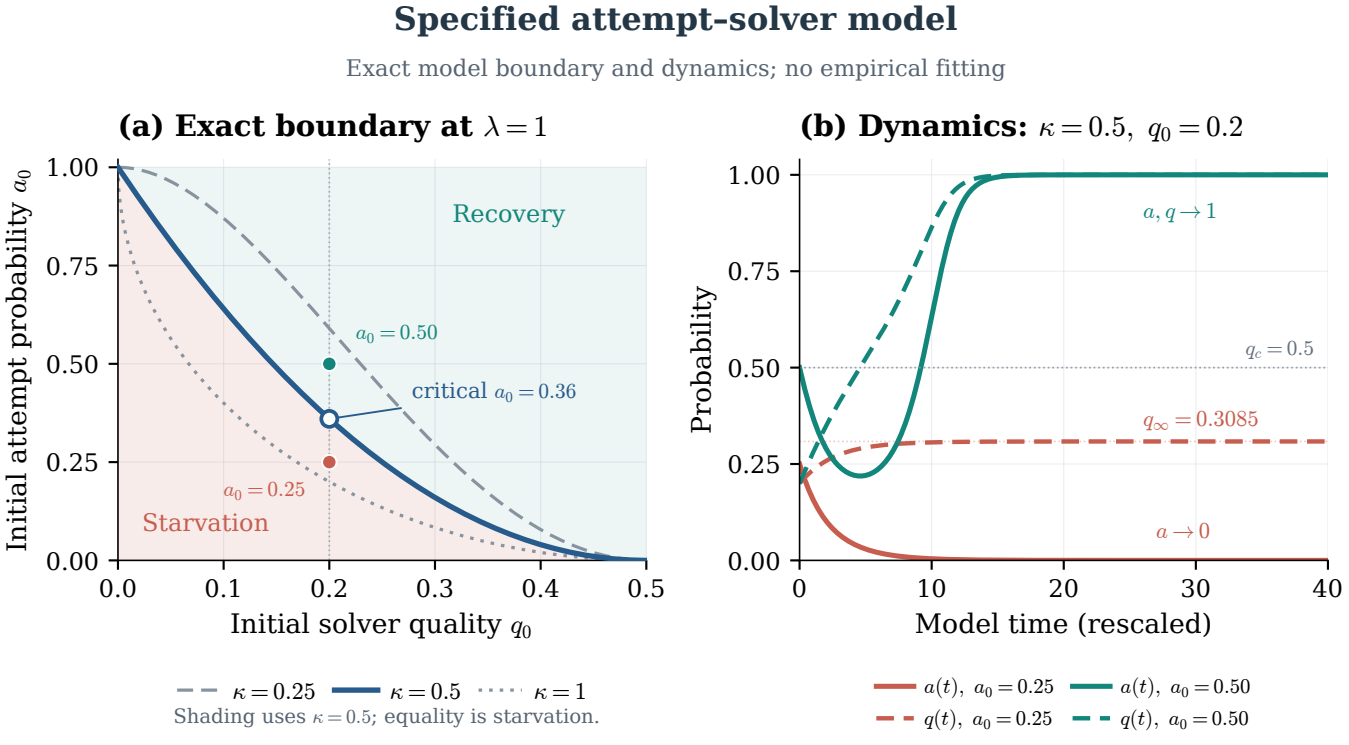

Specified attempt–solver model
Exact model boundary and dynamics; no empirical fitting
(a) Exact boundary at $\lambda = 1$
Initial attempt probability a_0
1.00
0.75
0.50
0.25
0.00
Recovery
$a_0 = 0.50$
critical $a_0 = 0.36$
$a_0 = 0.25$
Starvation
0.0
0.1
0.2
0.3
0.4
0.5
Initial solver quality q_0
$\kappa = 0.25$
$\kappa = 0.5$
$\kappa = 1$
Shading uses $\kappa = 0.5$; equality is starvation.
(b) Dynamics: $\kappa = 0.5,\ q_0 = 0.2$
Probability
1.00
0.75
0.50
0.25
0.00
$a, q \to 1$
$q_c = 0.5$
$q_\infty = 0.3085$
$a \to 0$
0
10
20
30
40
Model time (rescaled)
$a(t),\ a_0 = 0.25$
$a(t),\ a_0 = 0.50$
$q(t),\ a_0 = 0.25$
$q(t),\ a_0 = 0.50$