

Table S2. Results of the Bayes Factor Test of Independent Origins. The Bayes Factor test results for Markov Chain Monte Carlo simulations under several null-alternative hypothesis pairs. A wide range of priors on the rates of gain and loss were tested in each hypothesis, from 1:100 (losses 100 times more frequent than gains) to 100:1 (gains 100 times more frequent than losses).

Hypotheses on number of gains	Priors on rates of gain:loss	Prior Probability on H0	BF	log10(BF)	2xlog_e(BF)	Posterior Probability on H0	Posterior Probability on H0 CI (2.5%, 97.5% )
H0: number of gains <2 H1: number of gains >=2	1:100	0.9932943	0.02329104	-1.63281103	-7.51937269	0.7752811	0.7619601 0.7886021
	1:10	0.8588558	0.000926462	-3.033172369	-13.96827496	0.005605873	0.003510833 0.007700913
	1:1	0.4852118	2.52E-04	-3.60E+00	-1.66E+01	2.38E-04	4.379822e-05 4.319882e-04
	10:1	0.9023347	2.98E-21	-2.05E+01	-9.45E+01	2.75E-20	-Inf Inf
	100:1	0.9912571	4.24E-50	-4.94E+01	-2.27E+02	4.81E-48	-Inf Inf
H0: number of gains <3 H1: number of gains >=3	1:100	0.9989217	7.54E-03	-2.12E+00	-9.78E+00	0.8747499	0.8622518 0.8872480
	1:10	0.9201325	8.81E-04	-3.05E+00	-1.41E+01	0.01005141	0.006828737 0.013274079
	1:1	0.5759292	4.04E-04	-3.39E+00	-1.56E+01	5.48E-04	3.501958e-05 1.060970e-03
	10:1	0.938263	1.58E-19	-1.88E+01	-8.66E+01	2.40E-18	-Inf Inf
	100:1	0.9948279	8.72E-42	-4.11E+01	-1.89E+02	1.68E-39	-Inf Inf
H0: number of gains <4 H1: number of gains >=4	1:100	0.9998487	1.44E-03	-2.84E+00	-1.31E+01	0.9046518	0.8945270 0.9147766
	1:10	0.9547812	5.58E-04	-3.25E+00	-1.50E+01	0.0116412	0.008635697 0.014646698
	1:1	0.638443	7.21E-04	-3.14E+00	-1.45E+01	1.27E-03	0.0003193014 0.0022243121
	10:1	0.9563846	2.36E-15	-1.46E+01	-6.74E+01	5.18E-14	-Inf Inf
	100:1	0.9962996	6.81E-36	-3.52E+01	-1.62E+02	1.83E-33	-Inf Inf
H0: number of gains <5 H1: number of gains >=5	1:100	0.9999675	5.30E-04	-3.28E+00	-1.51E+01	0.9423268	0.9336539 0.9509997
	1:10	0.9733215	6.89E-04	-3.16E+00	-1.46E+01	0.02450812	0.02165349 0.02736275
	1:1	0.6885356	1.31E-03	-2.88E+00	-1.33E+01	2.89E-03	0.002482794 0.003288114
	10:1	0.967463	3.73E-12	-1.14E+01	-5.26E+01	1.11E-10	-Inf Inf
	100:1	0.9972577	2.57E-28	-2.76E+01	-1.27E+02	9.33E-26	-Inf Inf
H0: number of gains <6 H1: number of gains >=6	1:100	0.9999942	2.19E-04	-3.66E+00	-1.69E+01	0.9740522	0.9699995 0.9781049
	1:10	0.9817393	1.49E-03	-2.83E+00	-1.30E+01	0.07401574	0.06886624 0.07916525
	1:1	0.7323973	5.50E-03	-2.26E+00	-1.04E+01	0.01481869	0.01293241 0.01670497
	10:1	0.9741208	4.22E-11	-1.04E+01	-4.78E+01	1.59E-09	-1.418196e-10 3.318303e-09
	100:1	0.997783	1.02E-24	-2.40E+01	-1.10E+02	4.61E-22	-Inf Inf
H0: number of gains <7 H1: number of gains >=7	1:100	0.9999994	4.74E-05	-4.32E+00	-1.99E+01	0.9883633	0.9861575 0.9905690
	1:10	0.9894467	2.00E-03	-2.70E+00	-1.24E+01	0.1579367	0.1502426 0.1656307
	1:1	0.754721	1.20E-02	-1.92E+00	-8.84E+00	0.03571291	0.03285667 0.03856916
	10:1	0.9784213	1.09E-09	-8.96E+00	-4.13E+01	4.95E-08	7.154121e-09 9.184142e-08
	100:1	0.9981014	2.04E-21	-2.07E+01	-9.53E+01	1.07E-18	-Inf Inf
H0: number of gains <8 H1: number of gains >=8	1:100	0.9999999	3.24E-05	-4.49E+00	-2.07E+01	0.9963925	0.9956291 0.9971559
	1:10	0.9928451	2.41E-03	-2.61712789	-12.05231931	0.2509828	0.2412363 0.2607293
	1:1	0.791862	0.02273449	-1.64331485	-7.56774454	0.07960789	0.07480807 0.08440770
	10:1	0.982221	1.30E-08	-7.89E+00	-3.63E+01	7.16E-07	3.758106e-07 1.056162e-06
	100:1	0.99844	1.22E-18	-1.79E+01	-8.25E+01	7.80E-16	-Inf Inf
H0: number of gains <9 H1: number of gains >=9	1:100	1	1.14E-05	-4.94E+00	-2.28E+01	0.9987043	0.9982476 0.9991610
	1:10	0.9955846	2.66E-03	-2.58E+00	-1.19E+01	0.3748148	0.3636841 0.3859454
	1:1	0.8126526	0.03695513	-1.43232521	-6.59610138	0.1381535	0.1311497 0.1451573
	10:1	0.9844954	1.42E-07	-6.85E+00	-3.15E+01	9.02E-06	6.852312e-06 1.119043e-05
	100:1	0.9986322	4.91E-15	-1.43E+01	-6.59E+01	3.59E-12	-Inf Inf
H0: number of gains <10 H1: number of gains >=10	1:100	1	2.04E-05	-4.69E+00	-2.16E+01	0.999692	0.9996075 0.9997765
	1:10	0.9968656	0.003271898	-2.485200281	-11.44477024	0.5099446	0.4986376 0.5212516
	1:1	0.8299095	0.05906849	-1.22864415	-5.65811543	0.2237281	0.2149620 0.2324942
	10:1	0.9869393	1.13E-06	-5.95E+00	-2.74E+01	8.57E-05	7.247762e-05 9.895713e-05
	100:1	0.9988311	3.14E-13	-1.25E+01	-5.76E+01	2.68E-10	-Inf Inf
H0: number of gains <11 H1: number of gains >=11	1:100	1	4.77E-06	-5.32E+00	-2.45E+01	0.9998868	0.9998278 0.9999458
	1:10	0.9968656	0.003676554	-2.434559014	-11.21155859	0.6444157	0.6334724 0.6553590
	1:1	0.8299095	0.08929826	-1.049157	-4.83154652	0.3329729	0.3229304 0.3430154
	10:1	0.9869393	1.01E-05	-4.99E+00	-2.30E+01	0.000897278	0.000786432 0.00100812
	100:1	0.9988311	8.63E-11	-1.01E+01	-4.63E+01	8.69E-08	6.975880e-08 1.040453e-07