Supplementary Material

A Seed values and Replication

Data were generated on three different systems, and analyzed on four different machines, due to the computational burden of the simulation study. Data for the parameter conditions with $\phi_{12} = 0.20, \phi_{21} = 0.10$ were generated in R version 4.4.1 on an aarch64 (ARM64) platform. Data for other parameter conditions were generated on two additional machines, both running R version 4.4.1 but with unidentifiable platforms due to server access restrictions.

For the analysis phase, we employed a fourth server running Ubuntu 26.04 (Noble) with an ARM64 architecture, which necessitated installation of an experimental build of R (version 4.4.0). On this system, all required packages were compiled from source: `mvtnorm` version 1.3-3, `rjags` version 4-14, and `coda` version 0.19-5. Due to the differences in compilation processes, underlying numerical libraries, and architecture-specific floating-point implementations, it is possible that the results may not be exactly replicable across different machines, despite using the same seeds. These platform-specific variations can particularly be of influence on the random number generation and Markov chain Monte Carlo simulations. Nevertheless, we have documented the random seeds for all analyses to maximize reproducibility within similar environments. The seeds for data analysis were as follows:

The seed value can be broken down into a value of 1000, plus the value of the condition and the data set. For example, simulation one of condition one yields the seed value 10011. For the GORICA function, each sample and subject obtained a unique seed value, calculated as 1000 + condition value - 1 $\times$ 100000 + simulation $\times$ 1000. For each subject, the subject number was added to this seed (subject numbers ranging from 1 to N per data set). The values of the condition are shown in the Table below.

Table A1: Seed values for data generation and analysis, by condition

Condition	N and T	Cross-lagged Parameters	Data generating seed	Analysis seed
1	N = 50, T = 25	0.2, 0.1	1000	1001
2	N = 50, T = 25	0.2, 0.15	1001	1002
3	N = 50, T = 25	0.15, 0.15	1002	1003
4	N = 50, T = 50	0.2, 0.1	1003	1004
5	N = 50, T = 50	0.2, 0.15	1004	1005
6	N = 50, T = 50	0.15, 0.15	1005	1006
7	N = 50, T = 75	0.2, 0.1	1006	1007
8	N = 50, T = 75	0.2, 0.15	1007	1008
9	N = 50, T = 75	0.15, 0.15	1008	1009
10	N = 50, T = 100	0.2, 0.1	1009	1010
11	N = 50, T = 100	0.2, 0.15	1010	1011
12	N = 50, T = 100	0.15, 0.15	1011	1012
13	N = 75, T = 25	0.2, 0.1	1012	1013
14	N = 75, T = 25	0.2, 0.15	1013	1014
15	N = 75, T = 25	0.15, 0.15	1014	1015
16	N = 75, T = 50	0.2, 0.1	1015	1016
17	N = 75, T = 50	0.2, 0.15	1016	1017
18	N = 75, T = 50	0.15, 0.15	1017	1018
19	N = 75, T = 75	0.2, 0.1	1018	1019
20	N = 75, T = 75	0.2, 0.15	1019	1020
21	N = 75, T = 75	0.15, 0.15	1020	1021
22	N = 75, T = 100	0.2, 0.1	1021	1022
23	N = 75, T = 100	0.2, 0.15	1022	1023
24	N = 75, T = 100	0.15, 0.15	1023	1024
25	N = 100, T = 25	0.2, 0.1	1024	1025
26	N = 100, T = 25	0.2, 0.15	1025	1026
27	N = 100, T = 25	0.15, 0.15	1026	1027
28	N = 100, T = 50	0.2, 0.1	1027	1028
29	N = 100, T = 50	0.2, 0.15	1028	1029
30	N = 100, T = 50	0.15, 0.15	1029	1030
31	N = 100, T = 75	0.2, 0.1	1030	1031
32	N = 100, T = 75	0.2, 0.15	1031	1032
33	N = 100, T = 75	0.15, 0.15	1032	1033
34	N = 100, T = 100	0.2, 0.1	1033	1034
35	N = 100, T = 100	0.2, 0.15	1034	1035
36	N = 100, T = 100	0.15, 0.15	1035	1036
37	N = 150, T = 25	0.2, 0.1	1036	1037
38	N = 150, T = 25	0.2, 0.15	1037	1038
39	N = 150, T = 25	0.15, 0.15	1038	1039
40	N = 150, T = 50	0.2, 0.1	1039	1040
41	N = 150, T = 50	0.2, 0.15	1040	1041
42	N = 150, T = 50	0.15, 0.15	1041	1042
43	N = 150, T = 75	0.2, 0.1	1042	1043
44	N = 150, T = 75	0.2, 0.15	1043	1044
45	N = 150, T = 75	0.15, 0.15	1044	1045
46	N = 150, T = 100	0.2, 0.1	1045	1046
47	N = 150, T = 100	0.2, 0.15	1046	1047
48	N = 150, T = 100	0.15, 0.15	1047	1048
61	N = 50, T = 25	0.2, 0.175	1060	1061
62	N = 50, T = 50	0.2, 0.175	1061	1062
63	N = 50, T = 75	0.2, 0.175	1062	1063
64	N = 50, T = 100	0.2, 0.175	1063	1064
65	N = 75, T = 25	0.2, 0.175	1064	1065
66	N = 75, T = 50	0.2, 0.175	1065	1066
67	N = 75, T = 75	0.2, 0.175	1066	1067
68	N = 75, T = 100	0.2, 0.175	1067	1068

Note: The Analysis Seed is utilized as a 'head' seed for each data set in a condition for the MCMC-sampling of the posterior and the GORICA.

B Between-subject Results

B1 $\phi_{12} = 0.20, \phi_{21} = 0.10$

Table B1: Complete Statistical Results – Between-Subject Level for Set 1 H_1

			ϕ_{12}		ϕ_{21}		w_{H1}		w_{H1c}		ratio ww'	
Condition	Support H_1	$N_{datasets}$	Mean (SD)	(min, max)	Mean (SD)	(min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	7	0.13 (0.02)	(0.10, 0.16)	0.16 (0.04)	(0.12, 0.21)	0.49	(0.14, 0.50)	0.51	(0.50, 0.86)	1.06	(1.00, 6.24)
N = 50, T = 25	yes	493	0.19 (0.03)	(0.15, 0.24)	0.10 (0.03)	(0.05, 0.15)	0.95	(0.50, 1.00)	0.05	(0.00, 0.50)	18.46	(1.00, 1.65e+06)
N = 50, T = 50	no	2	0.14 (0.01)	(0.13, 0.15)	0.15 (0.01)	(0.14, 0.16)	0.48	(0.48, 0.48)	0.52	(0.52, 0.52)	1.08	(1.07, 1.08)
N = 50, T = 50	yes	498	0.19 (0.02)	(0.16, 0.23)	0.10 (0.02)	(0.06, 0.14)	1.00	(0.50, 1.00)	0.00	(0.00, 0.50)	847.87	(1.00, 1.23e+12)
N = 50, T = 75	yes	500	0.19 (0.02)	(0.16, 0.23)	0.10 (0.02)	(0.07, 0.13)	1.00	(0.55, 1.00)	0.00	(0.00, 0.45)	3.67e+04	(1.21, 6.32e+17)
N = 50, T = 100	no	1	0.12 (NA)	(0.12, 0.12)	0.14 (NA)	(0.14, 0.14)	0.45	(0.45, 0.45)	0.55	(0.55, 0.55)	1.23	(1.23, 1.23)
N = 50, T = 100	yes	499	0.19 (0.02)	(0.16, 0.22)	0.10 (0.02)	(0.07, 0.13)	1.00	(0.55, 1.00)	0.00	(0.00, 0.45)	6.72e+04	(1.24, 5.06e+26)
N = 75, T = 25	no	1	0.14 (NA)	(0.14, 0.14)	0.14 (NA)	(0.14, 0.14)	0.50	(0.50, 0.50)	0.50	(0.50, 0.50)	1.02	(1.02, 1.02)
N = 75, T = 25	yes	499	0.19 (0.02)	(0.15, 0.23)	0.10 (0.03)	(0.06, 0.14)	0.99	(0.50, 1.00)	0.01	(0.00, 0.50)	106.35	(1.01, 1.10e+09)
N = 75, T = 50	yes	500	0.19 (0.02)	(0.16, 0.22)	0.10 (0.02)	(0.07, 0.13)	1.00	(0.73, 1.00)	0.00	(0.00, 0.27)	2.20e+04	(2.65, 4.47e+14)
N = 75, T = 75	yes	500	0.19 (0.02)	(0.17, 0.22)	0.10 (0.02)	(0.08, 0.13)	1.00	(0.72, 1.00)	0.00	(0.00, 0.28)	1.90e+06	(2.58, 1.84e+21)
N = 75, T = 100	yes	500	0.19 (0.01)	(0.17, 0.22)	0.10 (0.02)	(0.07, 0.13)	1.00	(0.97, 1.00)	0.00	(0.00, 0.03)	3.48e+08	(35.44, 4.32e+25)
N = 100, T = 25	yes	500	0.19 (0.02)	(0.16, 0.23)	0.10 (0.02)	(0.07, 0.14)	1.00	(0.52, 1.00)	0.00	(0.00, 0.48)	617.98	(1.07, 1.02e+12)
N = 100, T = 50	yes	500	0.19 (0.02)	(0.17, 0.22)	0.10 (0.02)	(0.07, 0.13)	1.00	(0.58, 1.00)	0.00	(0.00, 0.42)	6.86e+05	(1.36, 6.82e+16)
N = 100, T = 75	yes	500	0.19 (0.01)	(0.17, 0.22)	0.10 (0.02)	(0.08, 0.13)	1.00	(0.97, 1.00)	0.00	(0.00, 0.03)	9.06e+08	(30.24, 2.38e+23)
N = 100, T = 100	yes	500	0.19 (0.01)	(0.17, 0.21)	0.10 (0.01)	(0.08, 0.12)	1.00	(0.98, 1.00)	0.00	(0.00, 0.02)	1.83e+11	(41.10, 3.36e+30)
N = 150, T = 25	yes	500	0.19 (0.02)	(0.17, 0.22)	0.10 (0.02)	(0.08, 0.13)	1.00	(0.64, 1.00)	0.00	(0.00, 0.36)	1.14e+04	(1.78, 5.57e+11)
N = 150, T = 50	yes	500	0.19 (0.01)	(0.17, 0.21)	0.10 (0.01)	(0.08, 0.12)	1.00	(0.97, 1.00)	0.00	(0.00, 0.03)	7.54e+08	(28.61, 2.86e+20)
N = 150, T = 75	yes	500	0.19 (0.01)	(0.17, 0.21)	0.10 (0.01)	(0.08, 0.12)	1.00	(1.00, 1.00)	0.00	(0.00, 0.00)	7.45e+12	(1369.98, 5.97e+32)
N = 150, T = 100	yes	500	0.19 (0.01)	(0.18, 0.21)	0.10 (0.01)	(0.08, 0.12)	1.00	(1.00, 1.00)	0.00	(0.00, 0.00)	1.72e+17	(1.25e+05, 2.72e+36)

Table B2: Complete Statistical Results – Between-Subject Level for Set 2 H_1

			ϕ_{12}		ϕ_{21}		w_{H1}		w_{H1c}		ratio ww'	
Condition	Support H_1	$N_{datasets}$	Mean (SD)	(min, max)	Mean (SD)	(min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	39	0.15 (0.02)	(0.11, 0.19)	0.14 (0.02)	(0.11, 0.18)	0.31	(0.11, 0.38)	0.43	(0.19, 0.45)	1.40	(1.00, 1.65)
N = 50, T = 25	yes	461	0.19 (0.03)	(0.15, 0.24)	0.10 (0.03)	(0.05, 0.14)	0.90	(0.38, 1.00)	0.06	(0.00, 0.38)	14.12	(1.00, 1.00e+06)
N = 50, T = 50	no	9	0.16 (0.02)	(0.13, 0.19)	0.15 (0.01)	(0.13, 0.17)	0.31	(0.27, 0.38)	0.43	(0.39, 0.45)	1.41	(1.02, 1.65)
N = 50, T = 50	yes	491	0.19 (0.02)	(0.16, 0.23)	0.10 (0.02)	(0.06, 0.14)	1.00	(0.40, 1.00)	0.00	(0.00, 0.37)	534.92	(1.09, 7.44e+11)
N = 50, T = 75	no	3	0.15 (0.02)	(0.13, 0.16)	0.13 (0.02)	(0.11, 0.15)	0.32	(0.31, 0.34)	0.43	(0.41, 0.43)	1.34	(1.19, 1.37)
N = 50, T = 75	yes	497	0.19 (0.02)	(0.16, 0.23)	0.10 (0.02)	(0.07, 0.13)	1.00	(0.39, 1.00)	0.00	(0.00, 0.38)	2.24e+04	(1.02, 3.84e+17)
N = 50, T = 100	no	2	0.14 (0.02)	(0.13, 0.15)	0.14 (0.00)	(0.14, 0.14)	0.29	(0.26, 0.32)	0.42	(0.42, 0.43)	1.49	(1.33, 1.65)
N = 50, T = 100	yes	498	0.19 (0.02)	(0.16, 0.22)	0.10 (0.02)	(0.07, 0.13)	1.00	(0.45, 1.00)	0.00	(0.00, 0.34)	4.17e+05	(1.30, 3.07e+26)
N = 75, T = 25	no	12	0.16 (0.02)	(0.14, 0.18)	0.14 (0.02)	(0.11, 0.16)	0.35	(0.27, 0.38)	0.40	(0.38, 0.45)	1.16	(1.00, 1.65)
N = 75, T = 25	yes	488	0.19 (0.02)	(0.15, 0.23)	0.10 (0.03)	(0.06, 0.14)	0.98	(0.38, 1.00)	0.01	(0.00, 0.38)	71.86	(1.00, 6.68e+08)
N = 75, T = 50	yes	500	0.19 (0.02)	(0.16, 0.22)	0.10 (0.02)	(0.07, 0.13)	1.00	(0.50, 1.00)	0.00	(0.00, 0.31)	1.34e+04	(1.61, 2.71e+14)
N = 75, T = 75	yes	500	0.19 (0.02)	(0.17, 0.22)	0.10 (0.02)	(0.08, 0.13)	1.00	(0.49, 1.00)	0.00	(0.00, 0.32)	1.15e+06	(1.56, 1.12e+21)
N = 75, T = 100	yes	500	0.19 (0.01)	(0.17, 0.22)	0.10 (0.02)	(0.07, 0.13)	1.00	(0.93, 1.00)	0.00	(0.00, 0.04)	2.11e+08	(21.50, 2.62e+25)
N = 100, T = 25	no	3	0.15 (0.01)	(0.14, 0.16)	0.14 (0.02)	(0.12, 0.15)	0.32	(0.29, 0.37)	0.42	(0.39, 0.44)	1.33	(1.05, 1.55)
N = 100, T = 25	yes	497	0.19 (0.02)	(0.16, 0.23)	0.10 (0.02)	(0.07, 0.14)	1.00	(0.39, 1.00)	0.00	(0.00, 0.38)	416.00	(1.02, 6.19e+11)
N = 100, T = 50	no	1	0.16 (NA)	(0.16, 0.16)	0.15 (NA)	(0.15, 0.15)	0.34	(0.34, 0.34)	0.41	(0.41, 0.41)	1.22	(1.22, 1.22)
N = 100, T = 50	yes	499	0.19 (0.02)	(0.17, 0.22)	0.10 (0.02)	(0.07, 0.13)	1.00	(0.48, 1.00)	0.00	(0.00, 0.32)	4.16e+05	(1.50, 4.14e+16)
N = 100, T = 75	yes	500	0.19 (0.01)	(0.17, 0.22)	0.10 (0.02)	(0.08, 0.13)	1.00	(0.92, 1.00)	0.00	(0.00, 0.05)	5.50e+08	(18.34, 1.44e+23)
N = 100, T = 100	yes	500	0.19 (0.01)	(0.17, 0.21)	0.10 (0.01)	(0.08, 0.12)	1.00	(0.94, 1.00)	0.00	(0.00, 0.04)	1.11e+11	(24.93, 2.04e+30)
N = 150, T = 25	yes	500	0.19 (0.02)	(0.17, 0.22)	0.10 (0.02)	(0.08, 0.13)	1.00	(0.40, 1.00)	0.00	(0.00, 0.37)	6909.23	(1.08, 3.38e+11)
N = 150, T = 50	yes	500	0.19 (0.01)	(0.17, 0.21)	0.10 (0.01)	(0.08, 0.12)	1.00	(0.92, 1.00)	0.00	(0.00, 0.05)	4.57e+08	(17.35, 1.74e+20)
N = 150, T = 75	yes	500	0.19 (0.01)	(0.17, 0.21)	0.10 (0.01)	(0.08, 0.12)	1.00	(1.00, 1.00)	0.00	(0.00, 0.00)	4.52e+12	(830.93, 3.62e+32)
N = 150, T = 100	yes	500	0.19 (0.01)	(0.18, 0.21)	0.10 (0.01)	(0.08, 0.12)	1.00	(1.00, 1.00)	0.00	(0.00, 0.00)	1.05e+17	(7.60e+04, 1.65e+36)

Table B3: Complete Statistical Results – Between-Subject Level for Set 3 H_{a1c}

Condition	Support H_{a1c}	$N_{datasets}$	ϕ_{12} Mean (SD)	ϕ_{12} (min, max)	ϕ_{21} Mean (SD)	ϕ_{21} (min, max)	w_{Ha1c} Median	w_{Ha1c} (min, max)	w_{Ha1} Median	w_{Ha1} (min, max)	ratio ww' Median	ratio ww' (min, max)
N = 50, T = 25	no	314	0.18 (0.02)	(0.14, 0.22)	0.11 (0.03)	(0.07, 0.16)	0.30	(0.13, 0.50)	0.70	(0.50, 0.87)	2.37	(1.01, 6.51)
N = 50, T = 25	yes	186	0.21 (0.02)	(0.17, 0.25)	0.08 (0.03)	(0.04, 0.12)	0.78	(0.50, 1.00)	0.22	(0.00, 0.50)	3.53	(1.02, 1212.01)
N = 50, T = 50	no	202	0.18 (0.02)	(0.15, 0.21)	0.12 (0.02)	(0.09, 0.15)	0.31	(0.05, 0.50)	0.69	(0.50, 0.95)	2.23	(1.00, 18.41)
N = 50, T = 50	yes	298	0.20 (0.02)	(0.17, 0.24)	0.09 (0.02)	(0.06, 0.12)	0.85	(0.50, 1.00)	0.15	(0.00, 0.50)	5.58	(1.00, 1.38e+06)
N = 50, T = 75	no	163	0.18 (0.01)	(0.15, 0.20)	0.12 (0.02)	(0.09, 0.14)	0.32	(0.07, 0.49)	0.68	(0.51, 0.93)	2.16	(1.03, 13.03)
N = 50, T = 75	yes	337	0.20 (0.02)	(0.18, 0.23)	0.09 (0.02)	(0.06, 0.12)	0.94	(0.51, 1.00)	0.06	(0.00, 0.49)	16.51	(1.02, 1.72e+09)
N = 50, T = 100	no	142	0.18 (0.02)	(0.15, 0.20)	0.12 (0.02)	(0.09, 0.14)	0.33	(0.03, 0.50)	0.67	(0.50, 0.97)	2.07	(1.00, 32.48)
N = 50, T = 100	yes	358	0.20 (0.02)	(0.17, 0.23)	0.10 (0.02)	(0.07, 0.12)	0.96	(0.50, 1.00)	0.04	(0.00, 0.50)	22.66	(1.01, 3.39e+14)
N = 75, T = 25	no	260	0.18 (0.02)	(0.15, 0.21)	0.12 (0.02)	(0.08, 0.15)	0.31	(0.09, 0.50)	0.69	(0.50, 0.91)	2.23	(1.00, 9.88)
N = 75, T = 25	yes	240	0.21 (0.02)	(0.17, 0.24)	0.09 (0.02)	(0.05, 0.12)	0.79	(0.50, 1.00)	0.21	(0.00, 0.50)	3.73	(1.02, 3.00e+04)
N = 75, T = 50	no	152	0.18 (0.02)	(0.16, 0.21)	0.12 (0.01)	(0.09, 0.14)	0.33	(0.19, 0.50)	0.67	(0.50, 0.81)	1.99	(1.00, 4.31)
N = 75, T = 50	yes	348	0.20 (0.02)	(0.17, 0.22)	0.09 (0.02)	(0.07, 0.12)	0.89	(0.50, 1.00)	0.11	(0.00, 0.50)	8.15	(1.00, 6.12e+06)
N = 75, T = 75	no	125	0.18 (0.01)	(0.16, 0.20)	0.12 (0.01)	(0.10, 0.14)	0.33	(0.08, 0.50)	0.67	(0.50, 0.92)	2.03	(1.00, 10.85)
N = 75, T = 75	yes	375	0.20 (0.01)	(0.17, 0.22)	0.10 (0.01)	(0.07, 0.12)	0.96	(0.50, 1.00)	0.04	(0.00, 0.50)	22.81	(1.02, 4.87e+09)
N = 75, T = 100	no	70	0.18 (0.01)	(0.16, 0.20)	0.12 (0.01)	(0.10, 0.14)	0.36	(0.20, 0.50)	0.64	(0.50, 0.80)	1.75	(1.00, 3.99)
N = 75, T = 100	yes	430	0.20 (0.01)	(0.18, 0.22)	0.10 (0.01)	(0.07, 0.12)	0.98	(0.50, 1.00)	0.02	(0.00, 0.50)	45.07	(1.01, 1.49e+11)
N = 100, T = 25	no	217	0.18 (0.02)	(0.15, 0.21)	0.12 (0.02)	(0.09, 0.14)	0.32	(0.08, 0.50)	0.68	(0.50, 0.92)	2.10	(1.00, 11.22)
N = 100, T = 25	yes	283	0.20 (0.02)	(0.17, 0.23)	0.09 (0.02)	(0.06, 0.12)	0.82	(0.50, 1.00)	0.18	(0.00, 0.50)	4.43	(1.01, 1.23e+06)
N = 100, T = 50	no	133	0.18 (0.01)	(0.16, 0.20)	0.12 (0.01)	(0.10, 0.14)	0.36	(0.04, 0.50)	0.64	(0.50, 0.96)	1.80	(1.01, 21.97)
N = 100, T = 50	yes	367	0.20 (0.01)	(0.17, 0.22)	0.10 (0.01)	(0.07, 0.12)	0.94	(0.50, 1.00)	0.06	(0.00, 0.50)	15.67	(1.02, 3.21e+07)
N = 100, T = 75	no	75	0.18 (0.01)	(0.16, 0.19)	0.12 (0.01)	(0.10, 0.13)	0.35	(0.21, 0.50)	0.65	(0.50, 0.79)	1.88	(1.00, 3.86)
N = 100, T = 75	yes	425	0.20 (0.01)	(0.18, 0.22)	0.10 (0.01)	(0.07, 0.12)	0.99	(0.51, 1.00)	0.01	(0.00, 0.49)	78.29	(1.03, 1.01e+10)
N = 100, T = 100	no	51	0.18 (0.01)	(0.16, 0.19)	0.12 (0.01)	(0.10, 0.14)	0.37	(0.14, 0.50)	0.63	(0.50, 0.86)	1.71	(1.00, 6.31)
N = 100, T = 100	yes	449	0.19 (0.01)	(0.18, 0.21)	0.10 (0.01)	(0.08, 0.12)	0.99	(0.51, 1.00)	0.01	(0.00, 0.49)	129.07	(1.05, 8.94e+12)
N = 150, T = 25	no	164	0.18 (0.01)	(0.16, 0.20)	0.12 (0.01)	(0.10, 0.14)	0.35	(0.12, 0.50)	0.65	(0.50, 0.88)	1.88	(1.00, 7.46)
N = 150, T = 25	yes	336	0.20 (0.02)	(0.17, 0.23)	0.10 (0.02)	(0.07, 0.12)	0.86	(0.50, 1.00)	0.14	(0.00, 0.50)	6.33	(1.01, 7.62e+04)
N = 150, T = 50	no	62	0.18 (0.01)	(0.16, 0.19)	0.12 (0.01)	(0.10, 0.13)	0.37	(0.20, 0.50)	0.63	(0.50, 0.80)	1.73	(1.00, 3.93)
N = 150, T = 50	yes	438	0.20 (0.01)	(0.18, 0.21)	0.10 (0.01)	(0.08, 0.12)	0.98	(0.50, 1.00)	0.02	(0.00, 0.50)	51.28	(1.00, 1.20e+08)
N = 150, T = 75	no	35	0.18 (0.01)	(0.17, 0.20)	0.12 (0.01)	(0.11, 0.14)	0.37	(0.25, 0.49)	0.63	(0.51, 0.75)	1.68	(1.03, 2.97)
N = 150, T = 75	yes	465	0.19 (0.01)	(0.17, 0.21)	0.10 (0.01)	(0.08, 0.12)	1.00	(0.51, 1.00)	0.00	(0.00, 0.49)	283.08	(1.02, 4.31e+13)
N = 150, T = 100	no	14	0.18 (0.01)	(0.17, 0.19)	0.12 (0.01)	(0.11, 0.13)	0.44	(0.27, 0.50)	0.56	(0.50, 0.73)	1.28	(1.01, 2.73)
N = 150, T = 100	yes	486	0.19 (0.01)	(0.18, 0.21)	0.10 (0.01)	(0.08, 0.12)	1.00	(0.51, 1.00)	0.00	(0.00, 0.49)	1323.84	(1.03, 4.91e+13)

Table B4: Complete Statistical Results – Between-Subject Level for Set 4 H_{a2c}

Condition	Support H_{a2c}	$N_{datasets}$	ϕ_{12} Mean (SD)	ϕ_{12} (min, max)	ϕ_{21} Mean (SD)	ϕ_{21} (min, max)	w_{Ha2c} Median	w_{Ha2c} (min, max)	w_{Ha2} Median	w_{Ha2} (min, max)	ratio ww' Median	ratio ww' (min, max)
N = 50, T = 25	no	123	0.17 (0.02)	(0.14, 0.21)	0.13 (0.02)	(0.10, 0.16)	0.37	(0.26, 0.49)	0.63	(0.51, 0.74)	1.67	(1.03, 2.78)
N = 50, T = 25	yes	377	0.20 (0.03)	(0.16, 0.24)	0.09 (0.03)	(0.05, 0.14)	0.89	(0.50, 1.00)	0.11	(0.00, 0.50)	8.41	(1.01, 1.52e+05)
N = 50, T = 50	no	33	0.16 (0.02)	(0.13, 0.19)	0.13 (0.02)	(0.10, 0.16)	0.35	(0.25, 0.49)	0.65	(0.51, 0.75)	1.85	(1.02, 2.93)
N = 50, T = 50	yes	467	0.20 (0.02)	(0.16, 0.23)	0.10 (0.02)	(0.06, 0.13)	0.99	(0.51, 1.00)	0.01	(0.00, 0.49)	105.95	(1.02, 2.62e+10)
N = 50, T = 75	no	9	0.16 (0.02)	(0.14, 0.18)	0.14 (0.01)	(0.12, 0.15)	0.31	(0.27, 0.49)	0.69	(0.51, 0.73)	2.21	(1.03, 2.69)
N = 50, T = 75	yes	491	0.19 (0.02)	(0.16, 0.23)	0.10 (0.02)	(0.07, 0.13)	1.00	(0.50, 1.00)	0.00	(0.00, 0.50)	1783.68	(1.02, 3.49e+15)
N = 50, T = 100	no	12	0.16 (0.02)	(0.13, 0.18)	0.14 (0.01)	(0.11, 0.15)	0.36	(0.27, 0.48)	0.64	(0.52, 0.73)	1.80	(1.07, 2.71)
N = 50, T = 100	yes	488	0.19 (0.02)	(0.16, 0.22)	0.10 (0.02)	(0.07, 0.13)	1.00	(0.51, 1.00)	0.00	(0.00, 0.49)	1.79e+04	(1.05, 4.49e+23)
N = 75, T = 25	no	67	0.17 (0.02)	(0.14, 0.19)	0.13 (0.02)	(0.10, 0.16)	0.38	(0.26, 0.49)	0.62	(0.51, 0.74)	1.64	(1.03, 2.78)
N = 75, T = 25	yes	433	0.20 (0.02)	(0.16, 0.24)	0.10 (0.02)	(0.05, 0.14)	0.96	(0.50, 1.00)	0.04	(0.00, 0.50)	26.06	(1.02, 4.80e+07)
N = 75, T = 50	no	4	0.17 (0.02)	(0.15, 0.19)	0.14 (0.01)	(0.12, 0.15)	0.44	(0.36, 0.47)	0.56	(0.53, 0.64)	1.28	(1.11, 1.77)
N = 75, T = 50	yes	496	0.19 (0.02)	(0.16, 0.22)	0.10 (0.02)	(0.07, 0.13)	1.00	(0.55, 1.00)	0.00	(0.00, 0.45)	1130.04	(1.21, 3.33e+12)
N = 75, T = 75	no	2	0.17 (0.01)	(0.16, 0.17)	0.14 (0.00)	(0.14, 0.14)	0.41	(0.33, 0.49)	0.59	(0.51, 0.67)	1.53	(1.04, 2.02)
N = 75, T = 75	yes	498	0.19 (0.02)	(0.17, 0.22)	0.10 (0.02)	(0.08, 0.13)	1.00	(0.51, 1.00)	0.00	(0.00, 0.49)	3.50e+04	(1.05, 1.88e+18)
N = 75, T = 100	yes	500	0.19 (0.01)	(0.17, 0.22)	0.10 (0.02)	(0.07, 0.13)	1.00	(0.72, 1.00)	0.00	(0.00, 0.28)	2.10e+06	(2.52, 9.05e+21)
N = 100, T = 25	no	24	0.17 (0.01)	(0.15, 0.18)	0.13 (0.01)	(0.11, 0.15)	0.41	(0.27, 0.50)	0.59	(0.50, 0.73)	1.43	(1.00, 2.72)
N = 100, T = 25	yes	476	0.19 (0.02)	(0.16, 0.23)	0.10 (0.02)	(0.07, 0.14)	0.99	(0.50, 1.00)	0.01	(0.00, 0.50)	81.22	(1.01, 2.21e+10)
N = 100, T = 50	no	3	0.16 (0.01)	(0.16, 0.17)	0.14 (0.01)	(0.13, 0.15)	0.33	(0.27, 0.50)	0.67	(0.50, 0.73)	2.00	(1.01, 2.66)
N = 100, T = 50	yes	497	0.19 (0.02)	(0.17, 0.22)	0.10 (0.02)	(0.07, 0.13)	1.00	(0.50, 1.00)	0.00	(0.00, 0.50)	1.56e+04	(1.01, 2.27e+14)
N = 100, T = 75	yes	500	0.19 (0.01)	(0.17, 0.22)	0.10 (0.02)	(0.08, 0.13)	1.00	(0.70, 1.00)	0.00	(0.00, 0.30)	5.13e+06	(2.33, 8.75e+19)
N = 100, T = 100	yes	500	0.19 (0.01)	(0.17, 0.21)	0.10 (0.01)	(0.08, 0.12)	1.00	(0.70, 1.00)	0.00	(0.00, 0.30)	2.90e+08	(2.33, 1.28e+26)
N = 150, T = 25	no	8	0.17 (0.01)	(0.15, 0.19)	0.14 (0.02)	(0.12, 0.16)	0.46	(0.30, 0.50)	0.54	(0.50, 0.70)	1.18	(1.01, 2.31)
N = 150, T = 25	yes	492	0.19 (0.02)	(0.17, 0.22)	0.10 (0.02)	(0.08, 0.13)	1.00	(0.50, 1.00)	0.00	(0.00, 0.50)	711.67	(1.01, 6.68e+09)
N = 150, T = 50	yes	500	0.19 (0.01)	(0.17, 0.21)	0.10 (0.01)	(0.08, 0.12)	1.00	(0.69, 1.00)	0.00	(0.00, 0.31)	4.57e+06	(2.24, 1.67e+17)
N = 150, T = 75	yes	500	0.19 (0.01)	(0.17, 0.21)	0.10 (0.01)	(0.08, 0.12)	1.00	(0.97, 1.00)	0.00	(0.00, 0.03)	6.18e+09	(29.02, 9.47e+27)
N = 150, T = 100	yes	500	0.19 (0.01)	(0.18, 0.21)	0.10 (0.01)	(0.08, 0.12)	1.00	(1.00, 1.00)	0.00	(0.00, 0.00)	1.76e+13	(630.25, 5.11e+30)

B2 $\phi_{12} = 0.20, \phi_{21} = 0.15$

Table B5: Complete Statistical Results – Between-Subject Level for Set 1 H_1

			ϕ_{12}		ϕ_{21}		w_{H1}		w_{H1c}		ratio ww'	
Condition	Support H_1	$N_{datasets}$	Mean (SD)	(min, max)	Mean (SD)	(min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	54	0.15 (0.02)	(0.12, 0.18)	0.18 (0.03)	(0.15, 0.22)	0.45	(0.01, 0.50)	0.55	(0.50, 0.99)	1.23	(1.00, 172.03)
N = 50, T = 25	yes	446	0.20 (0.03)	(0.16, 0.24)	0.15 (0.03)	(0.10, 0.19)	0.72	(0.50, 1.00)	0.28	(0.00, 0.50)	2.55	(1.00, 8.33e+06)
N = 50, T = 50	no	43	0.17 (0.02)	(0.13, 0.20)	0.18 (0.02)	(0.15, 0.21)	0.49	(0.13, 0.50)	0.51	(0.50, 0.87)	1.05	(1.00, 6.82)
N = 50, T = 50	yes	457	0.20 (0.02)	(0.16, 0.23)	0.15 (0.02)	(0.11, 0.18)	0.85	(0.50, 1.00)	0.15	(0.00, 0.50)	5.75	(1.00, 4.39e+06)
N = 50, T = 75	no	13	0.17 (0.02)	(0.15, 0.19)	0.18 (0.02)	(0.15, 0.20)	0.49	(0.36, 0.50)	0.51	(0.50, 0.64)	1.02	(1.00, 1.79)
N = 50, T = 75	yes	487	0.20 (0.02)	(0.16, 0.23)	0.15 (0.02)	(0.12, 0.18)	0.94	(0.50, 1.00)	0.06	(0.00, 0.50)	14.53	(1.00, 4.37e+06)
N = 50, T = 100	no	23	0.17 (0.02)	(0.14, 0.19)	0.17 (0.02)	(0.15, 0.19)	0.48	(0.26, 0.50)	0.52	(0.50, 0.74)	1.08	(1.00, 2.81)
N = 50, T = 100	yes	477	0.20 (0.02)	(0.17, 0.22)	0.15 (0.02)	(0.12, 0.18)	0.96	(0.50, 1.00)	0.04	(0.00, 0.50)	26.88	(1.00, 5.10e+10)
N = 75, T = 25	no	41	0.17 (0.02)	(0.14, 0.20)	0.19 (0.02)	(0.16, 0.22)	0.49	(0.04, 0.50)	0.51	(0.50, 0.96)	1.06	(1.00, 22.55)
N = 75, T = 25	yes	459	0.20 (0.02)	(0.16, 0.24)	0.15 (0.02)	(0.11, 0.18)	0.78	(0.50, 1.00)	0.22	(0.00, 0.50)	3.47	(1.00, 7.63e+04)
N = 75, T = 50	no	17	0.17 (0.01)	(0.15, 0.18)	0.18 (0.01)	(0.16, 0.19)	0.48	(0.36, 0.50)	0.52	(0.50, 0.64)	1.10	(1.00, 1.81)
N = 75, T = 50	yes	483	0.20 (0.02)	(0.17, 0.23)	0.15 (0.02)	(0.12, 0.18)	0.92	(0.50, 1.00)	0.08	(0.00, 0.50)	11.71	(1.00, 1.80e+08)
N = 75, T = 75	no	15	0.17 (0.01)	(0.15, 0.19)	0.18 (0.01)	(0.16, 0.19)	0.47	(0.34, 0.50)	0.53	(0.50, 0.66)	1.11	(1.00, 1.95)
N = 75, T = 75	yes	485	0.20 (0.02)	(0.17, 0.22)	0.15 (0.02)	(0.12, 0.18)	0.97	(0.50, 1.00)	0.03	(0.00, 0.50)	32.98	(1.01, 6.75e+07)
N = 75, T = 100	no	4	0.16 (0.01)	(0.15, 0.17)	0.17 (0.01)	(0.15, 0.18)	0.45	(0.42, 0.50)	0.55	(0.50, 0.58)	1.21	(1.01, 1.39)
N = 75, T = 100	yes	496	0.20 (0.01)	(0.17, 0.22)	0.15 (0.01)	(0.12, 0.17)	1.00	(0.50, 1.00)	0.00	(0.00, 0.50)	251.49	(1.01, 8.29e+09)
N = 100, T = 25	no	31	0.17 (0.01)	(0.15, 0.19)	0.18 (0.01)	(0.16, 0.20)	0.49	(0.27, 0.50)	0.51	(0.50, 0.73)	1.04	(1.00, 2.68)
N = 100, T = 25	yes	469	0.20 (0.02)	(0.17, 0.23)	0.15 (0.02)	(0.12, 0.18)	0.82	(0.50, 1.00)	0.18	(0.00, 0.50)	4.60	(1.00, 7.43e+04)
N = 100, T = 50	no	9	0.17 (0.01)	(0.16, 0.19)	0.18 (0.01)	(0.17, 0.19)	0.49	(0.36, 0.49)	0.51	(0.51, 0.64)	1.05	(1.02, 1.76)
N = 100, T = 50	yes	491	0.19 (0.02)	(0.17, 0.22)	0.15 (0.02)	(0.12, 0.18)	0.95	(0.50, 1.00)	0.05	(0.00, 0.50)	20.27	(1.00, 5.76e+11)
N = 100, T = 75	no	5	0.16 (0.01)	(0.16, 0.17)	0.17 (0.01)	(0.16, 0.18)	0.49	(0.34, 0.50)	0.51	(0.50, 0.66)	1.02	(1.00, 1.93)
N = 100, T = 75	yes	495	0.20 (0.01)	(0.17, 0.22)	0.15 (0.01)	(0.13, 0.17)	0.99	(0.50, 1.00)	0.01	(0.00, 0.50)	122.25	(1.00, 5.73e+09)
N = 100, T = 100	no	4	0.17 (0.01)	(0.16, 0.19)	0.17 (0.01)	(0.16, 0.19)	0.49	(0.46, 0.50)	0.51	(0.50, 0.54)	1.04	(1.01, 1.15)
N = 100, T = 100	yes	496	0.19 (0.01)	(0.17, 0.21)	0.15 (0.01)	(0.13, 0.17)	1.00	(0.50, 1.00)	0.00	(0.00, 0.50)	359.01	(1.00, 1.94e+12)
N = 150, T = 25	no	12	0.17 (0.01)	(0.14, 0.19)	0.18 (0.02)	(0.15, 0.20)	0.48	(0.35, 0.50)	0.52	(0.50, 0.65)	1.06	(1.00, 1.89)
N = 150, T = 25	yes	488	0.20 (0.02)	(0.17, 0.22)	0.15 (0.02)	(0.13, 0.18)	0.91	(0.50, 1.00)	0.09	(0.00, 0.50)	9.98	(1.00, 5.63e+04)
N = 150, T = 50	no	2	0.17 (0.00)	(0.16, 0.17)	0.17 (0.00)	(0.17, 0.17)	0.47	(0.45, 0.49)	0.53	(0.51, 0.55)	1.13	(1.03, 1.23)
N = 150, T = 50	yes	498	0.20 (0.01)	(0.17, 0.22)	0.15 (0.01)	(0.13, 0.17)	0.99	(0.50, 1.00)	0.01	(0.00, 0.50)	157.75	(1.00, 1.36e+11)
N = 150, T = 75	no	4	0.16 (0.01)	(0.15, 0.17)	0.17 (0.01)	(0.16, 0.18)	0.47	(0.29, 0.49)	0.53	(0.51, 0.71)	1.13	(1.03, 2.50)
N = 150, T = 75	yes	496	0.20 (0.01)	(0.18, 0.21)	0.15 (0.01)	(0.13, 0.17)	1.00	(0.50, 1.00)	0.00	(0.00, 0.50)	1516.38	(1.01, 8.72e+13)
N = 150, T = 100	yes	500	0.19 (0.01)	(0.18, 0.21)	0.15 (0.01)	(0.13, 0.17)	1.00	(0.58, 1.00)	0.00	(0.00, 0.42)	1.59e+04	(1.38, 5.23e+19)

Table B6: Complete Statistical Results – Between-Subject Level for Set 2 H_1

			ϕ_{12}		ϕ_{21}		w_{H1}		w_{H1c}		ratio ww'	
Condition	Support H_1	$N_{datasets}$	Mean (SD)	(min, max)	Mean (SD)	(min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	204	0.18 (0.03)	(0.14, 0.23)	0.17 (0.02)	(0.13, 0.21)	0.29	(0.01, 0.38)	0.43	(0.01, 0.45)	1.52	(1.00, 1.65)
N = 50, T = 25	yes	296	0.21 (0.02)	(0.17, 0.25)	0.14 (0.03)	(0.09, 0.17)	0.63	(0.38, 1.00)	0.23	(0.00, 0.38)	2.69	(1.00, 5.05e+06)
N = 50, T = 50	no	150	0.18 (0.02)	(0.15, 0.21)	0.17 (0.02)	(0.14, 0.20)	0.29	(0.11, 0.38)	0.44	(0.17, 0.45)	1.49	(1.01, 1.65)
N = 50, T = 50	yes	350	0.20 (0.02)	(0.17, 0.23)	0.14 (0.02)	(0.11, 0.17)	0.83	(0.38, 1.00)	0.10	(0.00, 0.38)	7.98	(1.01, 2.66e+06)
N = 50, T = 75	no	80	0.18 (0.02)	(0.15, 0.20)	0.17 (0.02)	(0.14, 0.20)	0.30	(0.23, 0.38)	0.43	(0.37, 0.45)	1.42	(1.01, 1.65)
N = 50, T = 75	yes	420	0.20 (0.02)	(0.17, 0.23)	0.15 (0.02)	(0.12, 0.17)	0.90	(0.39, 1.00)	0.06	(0.00, 0.38)	14.98	(1.04, 2.65e+06)
N = 50, T = 100	no	64	0.17 (0.02)	(0.14, 0.20)	0.17 (0.02)	(0.15, 0.19)	0.29	(0.18, 0.38)	0.44	(0.30, 0.45)	1.55	(1.01, 1.65)
N = 50, T = 100	yes	436	0.20 (0.02)	(0.17, 0.22)	0.15 (0.02)	(0.12, 0.17)	0.94	(0.39, 1.00)	0.04	(0.00, 0.38)	26.02	(1.02, 3.09e+10)
N = 75, T = 25	no	152	0.18 (0.02)	(0.15, 0.20)	0.17 (0.02)	(0.14, 0.21)	0.29	(0.04, 0.38)	0.43	(0.07, 0.45)	1.51	(1.00, 1.65)
N = 75, T = 25	yes	348	0.20 (0.02)	(0.17, 0.24)	0.14 (0.02)	(0.11, 0.18)	0.69	(0.39, 1.00)	0.19	(0.00, 0.38)	3.60	(1.01, 4.63e+04)
N = 75, T = 50	no	74	0.18 (0.01)	(0.16, 0.20)	0.17 (0.01)	(0.14, 0.19)	0.30	(0.22, 0.38)	0.42	(0.37, 0.45)	1.45	(1.02, 1.65)
N = 75, T = 50	yes	426	0.20 (0.02)	(0.17, 0.23)	0.15 (0.02)	(0.12, 0.18)	0.87	(0.38, 1.00)	0.08	(0.00, 0.38)	11.07	(1.01, 1.09e+08)
N = 75, T = 75	no	54	0.17 (0.01)	(0.16, 0.19)	0.17 (0.01)	(0.15, 0.19)	0.29	(0.22, 0.38)	0.43	(0.36, 0.45)	1.50	(1.00, 1.65)
N = 75, T = 75	yes	446	0.20 (0.02)	(0.17, 0.22)	0.15 (0.02)	(0.12, 0.17)	0.95	(0.38, 1.00)	0.03	(0.00, 0.38)	31.09	(1.00, 4.10e+07)
N = 75, T = 100	no	28	0.17 (0.01)	(0.15, 0.20)	0.17 (0.01)	(0.15, 0.18)	0.32	(0.25, 0.38)	0.42	(0.38, 0.45)	1.33	(1.01, 1.65)
N = 75, T = 100	yes	472	0.20 (0.01)	(0.17, 0.22)	0.15 (0.01)	(0.12, 0.17)	0.99	(0.39, 1.00)	0.01	(0.00, 0.38)	189.57	(1.02, 5.03e+09)
N = 100, T = 25	no	142	0.18 (0.02)	(0.16, 0.21)	0.17 (0.02)	(0.15, 0.20)	0.30	(0.19, 0.38)	0.43	(0.31, 0.45)	1.48	(1.01, 1.65)
N = 100, T = 25	yes	358	0.20 (0.02)	(0.17, 0.23)	0.15 (0.02)	(0.11, 0.18)	0.79	(0.39, 1.00)	0.13	(0.00, 0.38)	6.08	(1.01, 4.63e+04)
N = 100, T = 50	no	64	0.18 (0.01)	(0.16, 0.20)	0.17 (0.01)	(0.15, 0.18)	0.30	(0.23, 0.38)	0.43	(0.37, 0.45)	1.46	(1.00, 1.65)
N = 100, T = 50	yes	436	0.20 (0.01)	(0.17, 0.22)	0.15 (0.02)	(0.12, 0.17)	0.92	(0.39, 1.00)	0.05	(0.00, 0.38)	19.31	(1.01, 3.49e+11)
N = 100, T = 75	no	35	0.17 (0.01)	(0.16, 0.19)	0.17 (0.01)	(0.16, 0.18)	0.30	(0.22, 0.38)	0.43	(0.36, 0.45)	1.43	(1.01, 1.65)
N = 100, T = 75	yes	465	0.20 (0.01)	(0.17, 0.22)	0.15 (0.01)	(0.13, 0.17)	0.98	(0.39, 1.00)	0.01	(0.00, 0.38)	105.06	(1.01, 3.48e+09)
N = 100, T = 100	no	18	0.17 (0.01)	(0.16, 0.19)	0.17 (0.01)	(0.15, 0.18)	0.31	(0.26, 0.38)	0.43	(0.38, 0.45)	1.40	(1.00, 1.65)
N = 100, T = 100	yes	482	0.19 (0.01)	(0.17, 0.21)	0.15 (0.01)	(0.13, 0.17)	0.99	(0.39, 1.00)	0.00	(0.00, 0.38)	300.53	(1.03, 1.18e+12)
N = 150, T = 25	no	75	0.18 (0.01)	(0.15, 0.20)	0.17 (0.02)	(0.14, 0.19)	0.32	(0.22, 0.38)	0.42	(0.36, 0.45)	1.32	(1.00, 1.65)
N = 150, T = 25	yes	425	0.20 (0.01)	(0.17, 0.22)	0.15 (0.02)	(0.12, 0.17)	0.85	(0.39, 1.00)	0.09	(0.00, 0.38)	8.95	(1.01, 3.41e+04)
N = 150, T = 50	no	23	0.18 (0.01)	(0.16, 0.19)	0.17 (0.01)	(0.16, 0.18)	0.31	(0.26, 0.38)	0.43	(0.38, 0.45)	1.40	(1.01, 1.65)
N = 150, T = 50	yes	477	0.20 (0.01)	(0.18, 0.22)	0.15 (0.01)	(0.13, 0.17)	0.99	(0.39, 1.00)	0.01	(0.00, 0.38)	121.90	(1.02, 8.24e+10)
N = 150, T = 75	no	14	0.17 (0.01)	(0.15, 0.19)	0.17 (0.01)	(0.16, 0.18)	0.30	(0.19, 0.38)	0.42	(0.32, 0.45)	1.48	(1.00, 1.65)
N = 150, T = 75	yes	486	0.20 (0.01)	(0.18, 0.21)	0.15 (0.01)	(0.13, 0.17)	1.00	(0.39, 1.00)	0.00	(0.00, 0.38)	1178.11	(1.03, 5.29e+13)
N = 150, T = 100	no	4	0.17 (0.01)	(0.16, 0.19)	0.17 (0.01)	(0.15, 0.18)	0.36	(0.34, 0.38)	0.40	(0.38, 0.41)	1.12	(1.01, 1.19)
N = 150, T = 100	yes	496	0.19 (0.01)	(0.18, 0.21)	0.15 (0.01)	(0.13, 0.17)	1.00	(0.41, 1.00)	0.00	(0.00, 0.38)	1.02e+04	(1.10, 3.17e+19)

Table B7: Complete Statistical Results – Between-Subject Level for Set 3 H_{a1}

			ϕ_{12}	ϕ_{21}	w_{Ha1}		w_{Ha1c}		ratio ww'	
Condition	Support H_{a1}	N_{datasets}	Mean (SD) (min, max)	Mean (SD) (min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	38	0.23 (0.03) (0.19, 0.26)	0.12 (0.03) (0.07, 0.15)	0.42	(0.00, 0.50)	0.58	(0.50, 1.00)	1.36	(1.01, 3169.38)
N = 50, T = 25	yes	462	0.19 (0.03) (0.15, 0.23)	0.15 (0.03) (0.11, 0.20)	0.73	(0.51, 0.88)	0.27	(0.12, 0.49)	2.77	(1.02, 7.32)
N = 50, T = 50	no	45	0.22 (0.02) (0.19, 0.25)	0.12 (0.02) (0.09, 0.15)	0.34	(0.01, 0.50)	0.66	(0.50, 0.99)	1.93	(1.01, 187.77)
N = 50, T = 50	yes	455	0.19 (0.02) (0.16, 0.22)	0.15 (0.02) (0.12, 0.19)	0.75	(0.50, 0.95)	0.25	(0.05, 0.50)	2.96	(1.02, 21.18)
N = 50, T = 75	no	55	0.22 (0.01) (0.19, 0.24)	0.13 (0.01) (0.10, 0.15)	0.29	(0.02, 0.49)	0.71	(0.51, 0.98)	2.40	(1.02, 46.63)
N = 50, T = 75	yes	445	0.19 (0.02) (0.16, 0.23)	0.15 (0.02) (0.12, 0.18)	0.74	(0.50, 0.98)	0.26	(0.02, 0.50)	2.87	(1.01, 55.88)
N = 50, T = 100	no	53	0.22 (0.02) (0.19, 0.24)	0.13 (0.01) (0.11, 0.15)	0.23	(0.00, 0.49)	0.77	(0.51, 1.00)	3.28	(1.06, 2955.78)
N = 50, T = 100	yes	447	0.19 (0.02) (0.16, 0.22)	0.15 (0.02) (0.12, 0.18)	0.76	(0.50, 0.99)	0.24	(0.01, 0.50)	3.19	(1.00, 173.13)
N = 75, T = 25	no	38	0.23 (0.02) (0.19, 0.26)	0.12 (0.02) (0.08, 0.15)	0.36	(0.03, 0.49)	0.64	(0.51, 0.97)	1.77	(1.03, 33.58)
N = 75, T = 25	yes	462	0.19 (0.02) (0.16, 0.23)	0.15 (0.02) (0.12, 0.19)	0.74	(0.50, 0.92)	0.26	(0.08, 0.50)	2.84	(1.01, 11.49)
N = 75, T = 50	no	42	0.22 (0.01) (0.20, 0.24)	0.12 (0.02) (0.10, 0.15)	0.32	(0.00, 0.47)	0.68	(0.53, 1.00)	2.11	(1.11, 358.67)
N = 75, T = 50	yes	458	0.19 (0.02) (0.16, 0.22)	0.15 (0.02) (0.12, 0.18)	0.74	(0.50, 0.98)	0.26	(0.02, 0.50)	2.91	(1.00, 50.03)
N = 75, T = 75	no	49	0.21 (0.01) (0.20, 0.23)	0.13 (0.01) (0.12, 0.15)	0.31	(0.03, 0.50)	0.69	(0.50, 0.97)	2.21	(1.00, 30.46)
N = 75, T = 75	yes	451	0.19 (0.02) (0.17, 0.22)	0.15 (0.02) (0.13, 0.18)	0.76	(0.52, 1.00)	0.24	(0.00, 0.48)	3.09	(1.07, 229.85)
N = 75, T = 100	no	60	0.21 (0.01) (0.19, 0.23)	0.13 (0.01) (0.11, 0.15)	0.34	(0.01, 0.49)	0.66	(0.51, 0.99)	1.96	(1.03, 93.87)
N = 75, T = 100	yes	440	0.19 (0.01) (0.17, 0.21)	0.15 (0.01) (0.13, 0.18)	0.74	(0.50, 1.00)	0.26	(0.00, 0.50)	2.91	(1.00, 1032.40)
N = 100, T = 25	no	32	0.22 (0.02) (0.20, 0.25)	0.12 (0.02) (0.10, 0.14)	0.36	(0.05, 0.49)	0.64	(0.51, 0.95)	1.78	(1.02, 17.43)
N = 100, T = 25	yes	468	0.19 (0.02) (0.16, 0.23)	0.15 (0.02) (0.12, 0.19)	0.74	(0.51, 0.95)	0.26	(0.05, 0.49)	2.90	(1.02, 20.49)
N = 100, T = 50	no	37	0.21 (0.01) (0.20, 0.23)	0.13 (0.01) (0.11, 0.15)	0.34	(0.00, 0.50)	0.66	(0.50, 1.00)	1.98	(1.01, 1.28e+04)
N = 100, T = 50	yes	463	0.19 (0.02) (0.17, 0.22)	0.15 (0.02) (0.13, 0.18)	0.76	(0.51, 0.99)	0.24	(0.01, 0.49)	3.10	(1.02, 144.92)
N = 100, T = 75	no	49	0.21 (0.01) (0.19, 0.23)	0.13 (0.01) (0.12, 0.15)	0.34	(0.01, 0.50)	0.66	(0.50, 0.99)	1.96	(1.02, 129.97)
N = 100, T = 75	yes	451	0.19 (0.01) (0.17, 0.21)	0.15 (0.01) (0.13, 0.18)	0.76	(0.51, 1.00)	0.24	(0.00, 0.49)	3.14	(1.03, 1265.04)
N = 100, T = 100	no	43	0.21 (0.01) (0.19, 0.23)	0.13 (0.01) (0.11, 0.15)	0.25	(0.01, 0.50)	0.75	(0.50, 0.99)	2.94	(1.02, 134.77)
N = 100, T = 100	yes	457	0.19 (0.01) (0.17, 0.21)	0.15 (0.01) (0.13, 0.17)	0.78	(0.50, 1.00)	0.22	(0.00, 0.50)	3.48	(1.01, 7646.26)
N = 150, T = 25	no	29	0.21 (0.01) (0.19, 0.23)	0.13 (0.01) (0.11, 0.15)	0.40	(0.17, 0.50)	0.60	(0.50, 0.83)	1.48	(1.00, 5.02)
N = 150, T = 25	yes	471	0.19 (0.02) (0.17, 0.22)	0.15 (0.02) (0.13, 0.18)	0.74	(0.51, 0.95)	0.26	(0.05, 0.49)	2.89	(1.02, 50.13)
N = 150, T = 50	no	33	0.21 (0.01) (0.20, 0.23)	0.13 (0.01) (0.12, 0.14)	0.33	(0.00, 0.50)	0.67	(0.50, 1.00)	2.05	(1.01, 354.91)
N = 150, T = 50	yes	467	0.19 (0.01) (0.17, 0.21)	0.15 (0.01) (0.13, 0.17)	0.74	(0.52, 0.99)	0.26	(0.05, 0.49)	2.89	(1.01, 937.24)
N = 150, T = 75	no	40	0.21 (0.01) (0.19, 0.23)	0.14 (0.01) (0.12, 0.15)	0.34	(0.00, 0.50)	0.66	(0.50, 1.00)	1.95	(1.02, 426.97)
N = 150, T = 75	yes	460	0.19 (0.01) (0.18, 0.21)	0.15 (0.01) (0.13, 0.17)	0.76	(0.51, 0.98)	0.24	(0.02, 0.50)	3.19	(1.01, 1.94e+04)
N = 150, T = 100	no	4	0.21 (0.01) (0.19, 0.22)	0.14 (0.01) (0.12, 0.15)	0.24	(0.00, 0.49)	0.76	(0.51, 1.00)	3.25	(1.04, 1.71e+04)
N = 150, T = 100	yes	449	0.19 (0.01) (0.18, 0.21)	0.15 (0.01) (0.13, 0.17)	0.78	(0.53, 0.99)	0.22	(0.01, 0.49)	3.50	(1.00, 2.18e+04)

Table B8: Complete Statistical Results – Between-Subject Level for Set 4 H_{a2c}

			ϕ_{12}	ϕ_{21}	w_{Ha2c}		w_{Ha2}		ratio ww'	
Condition	Support H_{a2c}	N_{datasets}	Mean (SD) (min, max)	Mean (SD) (min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	340	0.19 (0.03) (0.14, 0.23)	0.16 (0.03) (0.12, 0.20)	0.31	(0.26, 0.49)	0.69	(0.51, 0.74)	2.24	(1.03, 2.82)
N = 50, T = 25	yes	160	0.21 (0.03) (0.17, 0.25)	0.13 (0.03) (0.09, 0.17)	0.72	(0.50, 1.00)	0.28	(0.00, 0.50)	2.62	(1.01, 6.64e+05)
N = 50, T = 50	no	256	0.18 (0.02) (0.15, 0.21)	0.16 (0.02) (0.13, 0.19)	0.29	(0.25, 0.50)	0.71	(0.50, 0.75)	2.40	(1.02, 2.94)
N = 50, T = 50	yes	244	0.21 (0.02) (0.17, 0.24)	0.14 (0.02) (0.10, 0.17)	0.82	(0.50, 1.00)	0.18	(0.00, 0.50)	4.63	(1.01, 1.92e+05)
N = 50, T = 75	no	197	0.18 (0.02) (0.16, 0.21)	0.16 (0.02) (0.13, 0.19)	0.32	(0.25, 0.50)	0.68	(0.50, 0.75)	2.15	(1.00, 3.05)
N = 50, T = 75	yes	303	0.20 (0.02) (0.18, 0.23)	0.14 (0.02) (0.11, 0.17)	0.88	(0.50, 1.00)	0.12	(0.00, 0.50)	7.02	(1.01, 1.25e+05)
N = 50, T = 100	no	186	0.18 (0.02) (0.15, 0.21)	0.16 (0.01) (0.14, 0.18)	0.34	(0.24, 0.50)	0.66	(0.50, 0.76)	1.95	(1.00, 3.16)
N = 50, T = 100	yes	314	0.20 (0.02) (0.18, 0.23)	0.14 (0.02) (0.12, 0.17)	0.93	(0.50, 1.00)	0.07	(0.00, 0.50)	12.81	(1.00, 4.40e+08)
N = 75, T = 25	no	290	0.18 (0.02) (0.15, 0.22)	0.16 (0.02) (0.13, 0.19)	0.31	(0.26, 0.50)	0.69	(0.50, 0.74)	2.18	(1.00, 2.87)
N = 75, T = 25	yes	210	0.21 (0.02) (0.18, 0.24)	0.14 (0.02) (0.10, 0.18)	0.76	(0.50, 1.00)	0.24	(0.00, 0.50)	3.14	(1.00, 5738.85)
N = 75, T = 50	no	199	0.18 (0.02) (0.16, 0.21)	0.16 (0.02) (0.14, 0.19)	0.33	(0.25, 0.50)	0.67	(0.50, 0.75)	2.05	(1.02, 3.01)
N = 75, T = 50	yes	301	0.20 (0.02) (0.18, 0.23)	0.14 (0.02) (0.11, 0.17)	0.83	(0.50, 1.00)	0.17	(0.00, 0.50)	4.84	(1.00, 3.61e+06)
N = 75, T = 75	no	155	0.18 (0.01) (0.16, 0.21)	0.16 (0.01) (0.14, 0.18)	0.33	(0.24, 0.50)	0.67	(0.50, 0.76)	2.03	(1.00, 3.22)
N = 75, T = 75	yes	345	0.20 (0.01) (0.18, 0.22)	0.14 (0.01) (0.12, 0.17)	0.90	(0.50, 1.00)	0.10	(0.00, 0.50)	9.52	(1.01, 7.82e+05)
N = 75, T = 100	no	112	0.18 (0.01) (0.16, 0.21)	0.16 (0.01) (0.14, 0.18)	0.33	(0.24, 0.50)	0.67	(0.50, 0.76)	2.04	(1.00, 3.21)
N = 75, T = 100	yes	388	0.20 (0.01) (0.18, 0.22)	0.15 (0.01) (0.12, 0.17)	0.96	(0.51, 1.00)	0.04	(0.00, 0.49)	26.34	(1.03, 3.74e+07)
N = 100, T = 25	no	272	0.19 (0.02) (0.16, 0.22)	0.16 (0.02) (0.13, 0.19)	0.31	(0.25, 0.50)	0.69	(0.50, 0.75)	2.27	(1.02, 2.93)
N = 100, T = 25	yes	228	0.21 (0.02) (0.18, 0.23)	0.14 (0.02) (0.11, 0.17)	0.80	(0.50, 1.00)	0.20	(0.00, 0.50)	4.03	(1.00, 4617.08)
N = 100, T = 50	no	169	0.18 (0.01) (0.16, 0.20)	0.16 (0.01) (0.14, 0.18)	0.32	(0.24, 0.50)	0.68	(0.50, 0.76)	2.12	(1.00, 3.16)
N = 100, T = 50	yes	331	0.20 (0.01) (0.18, 0.22)	0.14 (0.01) (0.12, 0.17)	0.88	(0.50, 1.00)	0.12	(0.00, 0.50)	7.12	(1.00, 4.10e+09)
N = 100, T = 75	no	120	0.18 (0.01) (0.16, 0.20)	0.16 (0.01) (0.15, 0.18)	0.32	(0.23, 0.50)	0.68	(0.50, 0.77)	2.13	(1.01, 3.44)
N = 100, T = 75	yes	380	0.20 (0.01) (0.18, 0.22)	0.15 (0.01) (0.12, 0.17)	0.96	(0.50, 1.00)	0.04	(0.00, 0.50)	24.46	(1.01, 3.23e+07)
N = 100, T = 100	no	90	0.18 (0.01) (0.16, 0.19)	0.16 (0.01) (0.15, 0.18)	0.35	(0.21, 0.50)	0.65	(0.50, 0.79)	1.87	(1.00, 3.69)
N = 100, T = 100	yes	410	0.20 (0.01) (0.18, 0.22)	0.15 (0.01) (0.13, 0.17)	0.98	(0.50, 1.00)	0.02	(0.00, 0.50)	39.56	(1.02, 2.13e+09)
N = 150, T = 25	no	199	0.18 (0.01) (0.16, 0.21)	0.16 (0.01) (0.14, 0.19)	0.33	(0.25, 0.50)	0.67	(0.50, 0.75)	2.04	(1.01, 3.05)
N = 150, T = 25	yes	301	0.20 (0.01) (0.18, 0.23)	0.14 (0.01) (0.12, 0.16)	0.81	(0.50, 1.00)	0.19	(0.00, 0.50)	4.33	(1.01, 2479.01)
N = 150, T = 50	no	98	0.18 (0.01) (0.17, 0.20)	0.16 (0.01) (0.14, 0.18)	0.35	(0.23, 0.50)	0.65	(0.50, 0.77)	1.86	(1.00, 3.38)
N = 150, T = 50	yes	402	0.20 (0.01) (0.18, 0.22)	0.15 (0.01) (0.13, 0.17)	0.95	(0.50, 1.00)	0.05	(0.00, 0.50)	18.15	(1.01, 4.52e+08)
N = 150, T = 75	no	60	0.18 (0.01) (0.16, 0.20)	0.16 (0.01) (0.15, 0.18)	0.35	(0.22, 0.50)	0.65	(0.50, 0.78)	1.87	(1.01, 3.59)
N = 150, T = 75	yes	440	0.20 (0.01) (0.18, 0.21)	0.15 (0.01) (0.13, 0.17)	0.99	(0.50, 1.00)	0.01	(0.00, 0.50)	68.38	(1.01, 5.04e+10)
N = 150, T = 100	no	48	0.18 (0.01) (0.16, 0.20)	0.17 (0.01) (0.15, 0.18)	0.34	(0.26, 0.49)	0.66	(0.51, 0.74)	1.98	(1.03, 2.78)
N = 150, T = 100	yes	452	0.20 (0.01) (0.18, 0.21)	0.15 (0.01) (0.13, 0.17)	1.00	(0.50, 1.00)	0.00	(0.00, 0.50)	243.44	(1.02, 2.77e+15)

B3 $\phi_{12} = 0.20, \phi_{21} = 0.175$

Table B9: Complete Statistical Results – Between-Subject Level for Set 1 H_1

			ϕ_{12}	ϕ_{21}	w_{H1}		w_{H1c}		ratio ww'	
Condition	Support H_1	N_{datasets}	Mean (SD) (min, max)	Mean (SD) (min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	152	0.18 (0.03) (0.14, 0.21)	0.20 (0.03) (0.16, 0.25)	0.47	(0.02, 0.50)	0.53	(0.50, 0.98)	1.15	(1.00, 59.59)
N = 50, T = 25	yes	348	0.21 (0.03) (0.17, 0.25)	0.17 (0.03) (0.12, 0.22)	0.63	(0.50, 1.00)	0.37	(0.00, 0.50)	1.71	(1.00, 2300.82)
N = 50, T = 50	no	114	0.18 (0.02) (0.15, 0.21)	0.20 (0.02) (0.17, 0.22)	0.47	(0.01, 0.50)	0.53	(0.50, 0.99)	1.14	(1.00, 67.57)
N = 50, T = 50	yes	386	0.21 (0.02) (0.17, 0.24)	0.17 (0.02) (0.13, 0.20)	0.68	(0.50, 1.00)	0.32	(0.00, 0.50)	2.13	(1.00, 7899.82)
N = 50, T = 75	no	105	0.18 (0.01) (0.15, 0.20)	0.19 (0.02) (0.17, 0.22)	0.45	(0.01, 0.50)	0.55	(0.50, 0.99)	1.20	(1.00, 161.98)
N = 50, T = 75	yes	395	0.20 (0.02) (0.17, 0.23)	0.17 (0.02) (0.14, 0.20)	0.73	(0.50, 1.00)	0.27	(0.00, 0.50)	2.68	(1.00, 6.29e+04)
N = 50, T = 100	no	100	0.18 (0.01) (0.15, 0.20)	0.19 (0.01) (0.17, 0.21)	0.46	(0.00, 0.50)	0.54	(0.50, 1.00)	1.16	(1.00, 4.02e+04)
N = 50, T = 100	yes	400	0.20 (0.02) (0.18, 0.23)	0.17 (0.02) (0.14, 0.20)	0.78	(0.50, 1.00)	0.22	(0.00, 0.50)	3.48	(1.00, 8.75e+06)
N = 75, T = 25	no	139	0.18 (0.02) (0.15, 0.22)	0.20 (0.02) (0.16, 0.24)	0.48	(0.11, 0.50)	0.52	(0.50, 0.89)	1.08	(1.00, 7.89)
N = 75, T = 25	yes	361	0.21 (0.02) (0.17, 0.24)	0.17 (0.02) (0.14, 0.21)	0.66	(0.50, 1.00)	0.34	(0.00, 0.50)	1.94	(1.00, 2687.37)
N = 75, T = 50	no	88	0.18 (0.02) (0.16, 0.20)	0.19 (0.02) (0.17, 0.22)	0.45	(0.00, 0.50)	0.55	(0.50, 1.00)	1.23	(1.00, 1805.70)
N = 75, T = 50	yes	412	0.20 (0.02) (0.18, 0.23)	0.17 (0.02) (0.15, 0.20)	0.74	(0.50, 1.00)	0.26	(0.00, 0.50)	2.91	(1.00, 1859.32)
N = 75, T = 75	no	85	0.18 (0.01) (0.16, 0.20)	0.19 (0.01) (0.18, 0.21)	0.47	(0.01, 0.50)	0.53	(0.50, 0.99)	1.11	(1.00, 66.44)
N = 75, T = 75	yes	415	0.20 (0.01) (0.18, 0.22)	0.17 (0.01) (0.15, 0.20)	0.78	(0.50, 1.00)	0.22	(0.00, 0.50)	3.62	(1.00, 1.62e+04)
N = 75, T = 100	no	76	0.18 (0.01) (0.16, 0.20)	0.19 (0.01) (0.17, 0.21)	0.43	(0.00, 0.50)	0.57	(0.50, 1.00)	1.32	(1.00, 1164.89)
N = 75, T = 100	yes	424	0.20 (0.01) (0.18, 0.22)	0.17 (0.01) (0.15, 0.19)	0.84	(0.50, 1.00)	0.16	(0.00, 0.50)	5.34	(1.00, 3.88e+06)

Table B10: Complete Statistical Results – Between-Subject Level for Set 2 H_1

			ϕ_{12}	ϕ_{21}	w_{H1}		w_{H1c}		ratio ww'	
Condition	Support H_1	N_{datasets}	Mean (SD) (min, max)	Mean (SD) (min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	321	0.19 (0.03) (0.14, 0.24)	0.19 (0.03) (0.15, 0.23)	0.27	(0.02, 0.38)	0.44	(0.03, 0.45)	1.65	(1.00, 1.65)
N = 50, T = 25	yes	179	0.22 (0.02) (0.19, 0.26)	0.16 (0.02) (0.12, 0.20)	0.55	(0.38, 1.00)	0.28	(0.00, 0.38)	1.99	(1.00, 1395.52)
N = 50, T = 50	no	261	0.19 (0.02) (0.15, 0.22)	0.19 (0.02) (0.16, 0.22)	0.27	(0.01, 0.38)	0.43	(0.02, 0.45)	1.64	(1.01, 1.65)
N = 50, T = 50	yes	239	0.21 (0.02) (0.18, 0.24)	0.16 (0.02) (0.13, 0.19)	0.67	(0.39, 1.00)	0.20	(0.00, 0.38)	3.33	(1.01, 4791.48)
N = 50, T = 75	no	246	0.19 (0.02) (0.16, 0.21)	0.19 (0.02) (0.16, 0.22)	0.28	(0.01, 0.38)	0.43	(0.01, 0.45)	1.63	(1.01, 1.65)
N = 50, T = 75	yes	254	0.21 (0.02) (0.18, 0.24)	0.16 (0.02) (0.14, 0.19)	0.68	(0.38, 1.00)	0.20	(0.00, 0.38)	3.44	(1.00, 3.81e+04)
N = 50, T = 100	no	217	0.19 (0.02) (0.16, 0.21)	0.19 (0.02) (0.16, 0.21)	0.28	(0.00, 0.38)	0.43	(0.00, 0.45)	1.63	(1.00, 1.65)
N = 50, T = 100	yes	283	0.21 (0.02) (0.18, 0.23)	0.17 (0.02) (0.14, 0.19)	0.74	(0.39, 1.00)	0.16	(0.00, 0.38)	4.68	(1.01, 5.31e+06)
N = 75, T = 25	no	299	0.19 (0.02) (0.15, 0.23)	0.19 (0.02) (0.15, 0.23)	0.28	(0.09, 0.38)	0.43	(0.16, 0.45)	1.64	(1.01, 1.65)
N = 75, T = 25	yes	201	0.22 (0.02) (0.18, 0.25)	0.16 (0.02) (0.13, 0.20)	0.61	(0.38, 1.00)	0.24	(0.00, 0.38)	2.56	(1.00, 1629.97)
N = 75, T = 50	no	234	0.19 (0.02) (0.16, 0.21)	0.19 (0.02) (0.16, 0.21)	0.28	(0.00, 0.38)	0.43	(0.00, 0.45)	1.59	(1.00, 1.65)
N = 75, T = 50	yes	266	0.21 (0.01) (0.19, 0.23)	0.17 (0.01) (0.14, 0.19)	0.70	(0.38, 1.00)	0.19	(0.00, 0.38)	3.70	(1.00, 1127.73)
N = 75, T = 75	no	201	0.19 (0.01) (0.17, 0.21)	0.19 (0.01) (0.17, 0.21)	0.28	(0.01, 0.38)	0.43	(0.02, 0.45)	1.60	(1.01, 1.65)
N = 75, T = 75	yes	299	0.20 (0.01) (0.18, 0.23)	0.17 (0.01) (0.14, 0.19)	0.72	(0.38, 1.00)	0.18	(0.00, 0.38)	4.04	(1.00, 9840.81)
N = 75, T = 100	no	183	0.19 (0.01) (0.16, 0.21)	0.19 (0.01) (0.17, 0.21)	0.28	(0.00, 0.38)	0.43	(0.00, 0.45)	1.62	(1.00, 1.65)
N = 75, T = 100	yes	317	0.20 (0.01) (0.18, 0.22)	0.17 (0.01) (0.15, 0.19)	0.84	(0.38, 1.00)	0.10	(0.00, 0.38)	8.31	(1.00, 2.35e+06)

Table B11: Complete Statistical Results – Between-Subject Level for Set 3 H_{a1}

				ϕ_{12}	ϕ_{21}	w_{Ha1}		w_{Ha1c}		ratio ww'	
Condition	Support	H_{a1}	N_{datasets}	Mean (SD) (min, max)	Mean (SD) (min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no		12	0.24 (0.03) (0.19, 0.28)	0.13 (0.05) (0.09, 0.21)	0.35	(0.08, 0.47)	0.65	(0.53, 0.92)	1.85	(1.14, 10.77)
N = 50, T = 25	yes		488	0.20 (0.03) (0.15, 0.25)	0.18 (0.03) (0.13, 0.23)	0.76	(0.51, 0.87)	0.24	(0.13, 0.49)	3.09	(1.03, 6.77)
N = 50, T = 50	no		15	0.23 (0.01) (0.21, 0.25)	0.14 (0.01) (0.12, 0.16)	0.43	(0.17, 0.49)	0.57	(0.51, 0.83)	1.34	(1.03, 4.98)
N = 50, T = 50	yes		485	0.20 (0.02) (0.16, 0.23)	0.18 (0.02) (0.14, 0.21)	0.80	(0.51, 0.95)	0.20	(0.05, 0.49)	3.96	(1.03, 18.77)
N = 50, T = 75	no		9	0.23 (0.01) (0.22, 0.25)	0.14 (0.01) (0.13, 0.16)	0.26	(0.15, 0.45)	0.74	(0.55, 0.85)	2.80	(1.22, 5.87)
N = 50, T = 75	yes		491	0.20 (0.02) (0.17, 0.23)	0.18 (0.02) (0.14, 0.21)	0.85	(0.51, 0.98)	0.15	(0.02, 0.49)	5.56	(1.03, 52.05)
N = 50, T = 100	no		11	0.21 (0.03) (0.17, 0.24)	0.14 (0.03) (0.11, 0.19)	0.34	(0.04, 0.49)	0.66	(0.51, 0.96)	1.98	(1.03, 21.35)
N = 50, T = 100	yes		489	0.20 (0.02) (0.17, 0.23)	0.18 (0.02) (0.15, 0.20)	0.89	(0.53, 0.99)	0.11	(0.01, 0.47)	7.70	(1.13, 134.74)
N = 75, T = 25	no		11	0.24 (0.02) (0.22, 0.27)	0.13 (0.02) (0.10, 0.17)	0.44	(0.14, 0.49)	0.56	(0.51, 0.86)	1.27	(1.03, 6.02)
N = 75, T = 25	yes		489	0.20 (0.03) (0.16, 0.24)	0.18 (0.02) (0.14, 0.22)	0.78	(0.53, 0.92)	0.22	(0.08, 0.47)	3.65	(1.12, 11.08)
N = 75, T = 50	no		5	0.21 (0.04) (0.16, 0.24)	0.16 (0.04) (0.14, 0.21)	0.47	(0.44, 0.47)	0.53	(0.53, 0.56)	1.15	(1.13, 1.26)
N = 75, T = 50	yes		495	0.20 (0.02) (0.17, 0.23)	0.18 (0.02) (0.15, 0.21)	0.84	(0.55, 0.98)	0.16	(0.02, 0.45)	5.31	(1.21, 46.98)
N = 75, T = 75	no		1	0.22 (NA) (0.22, 0.22)	0.14 (NA) (0.14, 0.14)	0.47	(0.47, 0.47)	0.53	(0.53, 0.53)	1.13	(1.13, 1.13)
N = 75, T = 75	yes		499	0.20 (0.02) (0.17, 0.22)	0.18 (0.02) (0.15, 0.20)	0.90	(0.59, 1.00)	0.10	(0.00, 0.41)	9.20	(1.42, 210.54)
N = 75, T = 100	no		3	0.23 (0.01) (0.23, 0.24)	0.15 (0.01) (0.15, 0.16)	0.24	(0.22, 0.32)	0.76	(0.68, 0.78)	3.17	(2.16, 3.51)
N = 75, T = 100	yes		497	0.20 (0.02) (0.17, 0.22)	0.18 (0.02) (0.15, 0.20)	0.94	(0.51, 1.00)	0.06	(0.00, 0.49)	14.52	(1.04, 928.38)

Table B12: Complete Statistical Results – Between-Subject Level for Set 4 H_{a2c}

			ϕ_{12}		ϕ_{21}		w_{Ha2c}		w_{Ha2}		ratio ww'	
Condition	Support H_{a2c}	N_{datasets}	Mean (SD)	(min, max)	Mean (SD)	(min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	414	0.20 (0.03)	(0.15, 0.24)	0.19 (0.03)	(0.14, 0.23)	0.28	(0.26, 0.49)	0.72	(0.51, 0.74)	2.51	(1.02, 2.81)
N = 50, T = 25	yes	86	0.22 (0.03)	(0.17, 0.26)	0.15 (0.04)	(0.11, 0.22)	0.65	(0.51, 1.00)	0.35	(0.00, 0.49)	1.84	(1.02, 306.57)
N = 50, T = 50	no	370	0.19 (0.02)	(0.16, 0.23)	0.18 (0.02)	(0.15, 0.22)	0.28	(0.25, 0.50)	0.72	(0.50, 0.75)	2.54	(1.00, 2.93)
N = 50, T = 50	yes	130	0.22 (0.02)	(0.18, 0.25)	0.16 (0.02)	(0.12, 0.19)	0.70	(0.50, 1.00)	0.30	(0.00, 0.50)	2.31	(1.00, 598.94)
N = 50, T = 75	no	365	0.19 (0.02)	(0.17, 0.22)	0.18 (0.02)	(0.15, 0.21)	0.28	(0.25, 0.50)	0.72	(0.50, 0.75)	2.59	(1.01, 3.05)
N = 50, T = 75	yes	135	0.21 (0.02)	(0.17, 0.24)	0.16 (0.02)	(0.13, 0.21)	0.75	(0.50, 1.00)	0.25	(0.00, 0.50)	2.99	(1.00, 2843.25)
N = 50, T = 100	no	342	0.19 (0.02)	(0.17, 0.22)	0.18 (0.02)	(0.16, 0.21)	0.28	(0.24, 0.50)	0.72	(0.50, 0.76)	2.56	(1.01, 3.16)
N = 50, T = 100	yes	158	0.21 (0.02)	(0.17, 0.24)	0.16 (0.02)	(0.13, 0.20)	0.82	(0.50, 1.00)	0.18	(0.00, 0.50)	4.51	(1.00,1.58e+05)
N = 75, T = 25	no	400	0.20 (0.02)	(0.16, 0.24)	0.18 (0.02)	(0.15, 0.22)	0.28	(0.26, 0.49)	0.72	(0.51, 0.74)	2.52	(1.02, 2.87)
N = 75, T = 25	yes	100	0.22 (0.02)	(0.19, 0.26)	0.16 (0.02)	(0.13, 0.20)	0.67	(0.50, 1.00)	0.33	(0.00, 0.50)	2.02	(1.00, 289.70)
N = 75, T = 50	no	362	0.19 (0.02)	(0.17, 0.22)	0.18 (0.02)	(0.16, 0.21)	0.28	(0.25, 0.50)	0.72	(0.50, 0.75)	2.51	(1.00, 3.03)
N = 75, T = 50	yes	138	0.21 (0.02)	(0.19, 0.24)	0.16 (0.02)	(0.14, 0.19)	0.71	(0.50, 0.99)	0.29	(0.01, 0.50)	2.48	(1.01, 126.75)
N = 75, T = 75	no	354	0.19 (0.01)	(0.17, 0.22)	0.18 (0.01)	(0.16, 0.20)	0.28	(0.24, 0.50)	0.72	(0.50, 0.76)	2.56	(1.01, 3.21)
N = 75, T = 75	yes	146	0.21 (0.01)	(0.19, 0.23)	0.17 (0.02)	(0.14, 0.19)	0.71	(0.50, 1.00)	0.29	(0.00, 0.50)	2.46	(1.02, 547.71)
N = 75, T = 100	no	317	0.19 (0.01)	(0.17, 0.21)	0.18 (0.01)	(0.16, 0.20)	0.28	(0.23, 0.50)	0.72	(0.50, 0.77)	2.54	(1.00, 3.40)
N = 75, T = 100	yes	183	0.21 (0.01)	(0.19, 0.23)	0.17 (0.01)	(0.14, 0.19)	0.81	(0.51, 1.00)	0.19	(0.00, 0.49)	4.15	(1.04,4.11e+04)

B4 $\phi_{12} = 0.15, \phi_{21} = 0.15$

Table B13: Complete Statistical Results – Between-Subject Level for Set 1 H_1

			ϕ_{12}		ϕ_{21}		w_{H1}		w_{H1c}		ratio ww'	
Condition	Support H_1	$N_{datasets}$	Mean (SD)	(min, max)	Mean (SD)	(min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	280	0.13 (0.03)	(0.08, 0.16)	0.17 (0.03)	(0.12, 0.21)	0.42	(0.00, 0.50)	0.58	(0.50, 1.00)	1.39	(1.00, 538.73)
N = 50, T = 25	yes	220	0.16 (0.02)	(0.12, 0.20)	0.13 (0.03)	(0.08, 0.17)	0.58	(0.50, 1.00)	0.42	(0.00, 0.50)	1.40	(1.00, 232.34)
N = 50, T = 50	no	255	0.14 (0.02)	(0.10, 0.16)	0.16 (0.02)	(0.13, 0.19)	0.41	(0.00, 0.50)	0.59	(0.50, 1.00)	1.45	(1.00, 383.81)
N = 50, T = 50	yes	245	0.16 (0.02)	(0.13, 0.19)	0.13 (0.02)	(0.10, 0.16)	0.61	(0.50, 1.00)	0.39	(0.00, 0.50)	1.57	(1.00, 278.43)
N = 50, T = 75	no	241	0.14 (0.02)	(0.11, 0.16)	0.16 (0.02)	(0.13, 0.19)	0.39	(0.00, 0.50)	0.61	(0.50, 1.00)	1.59	(1.00, 7720.95)
N = 50, T = 75	yes	259	0.16 (0.02)	(0.13, 0.19)	0.14 (0.02)	(0.11, 0.16)	0.59	(0.50, 1.00)	0.41	(0.00, 0.50)	1.47	(1.00, 2753.25)
N = 50, T = 100	no	246	0.14 (0.02)	(0.11, 0.16)	0.16 (0.02)	(0.13, 0.19)	0.38	(0.00, 0.50)	0.62	(0.50, 1.00)	1.64	(1.00, 1.29e+04)
N = 50, T = 100	yes	254	0.16 (0.02)	(0.13, 0.19)	0.14 (0.02)	(0.11, 0.16)	0.62	(0.50, 1.00)	0.38	(0.00, 0.50)	1.64	(1.00, 5.19e+04)
N = 75, T = 25	no	251	0.13 (0.02)	(0.10, 0.17)	0.16 (0.02)	(0.13, 0.19)	0.44	(0.00, 0.50)	0.56	(0.50, 1.00)	1.28	(1.00, 233.79)
N = 75, T = 25	yes	249	0.16 (0.02)	(0.13, 0.20)	0.14 (0.02)	(0.10, 0.17)	0.58	(0.50, 1.00)	0.42	(0.00, 0.50)	1.38	(1.00, 229.45)
N = 75, T = 50	no	237	0.14 (0.02)	(0.11, 0.16)	0.16 (0.02)	(0.13, 0.18)	0.42	(0.00, 0.50)	0.58	(0.50, 1.00)	1.37	(1.00, 469.27)
N = 75, T = 50	yes	263	0.16 (0.02)	(0.13, 0.18)	0.14 (0.01)	(0.11, 0.16)	0.57	(0.50, 1.00)	0.43	(0.00, 0.50)	1.35	(1.00, 1133.11)
N = 75, T = 75	no	245	0.14 (0.01)	(0.12, 0.16)	0.16 (0.01)	(0.13, 0.18)	0.40	(0.00, 0.50)	0.60	(0.50, 1.00)	1.49	(1.00, 4.18e+04)
N = 75, T = 75	yes	255	0.16 (0.01)	(0.13, 0.18)	0.14 (0.01)	(0.11, 0.16)	0.60	(0.50, 1.00)	0.40	(0.00, 0.50)	1.50	(1.00, 2.99e+06)
N = 75, T = 100	no	259	0.14 (0.01)	(0.12, 0.16)	0.16 (0.01)	(0.14, 0.18)	0.36	(0.00, 0.50)	0.64	(0.50, 1.00)	1.74	(1.00, 5.28e+04)
N = 75, T = 100	yes	241	0.16 (0.01)	(0.14, 0.18)	0.14 (0.01)	(0.12, 0.16)	0.66	(0.50, 1.00)	0.34	(0.00, 0.50)	1.92	(1.00, 4592.77)
N = 100, T = 25	no	257	0.14 (0.02)	(0.10, 0.17)	0.16 (0.02)	(0.13, 0.19)	0.44	(0.02, 0.50)	0.56	(0.50, 0.98)	1.25	(1.00, 56.27)
N = 100, T = 25	yes	243	0.16 (0.02)	(0.13, 0.19)	0.14 (0.02)	(0.11, 0.17)	0.57	(0.50, 1.00)	0.43	(0.00, 0.50)	1.34	(1.00, 465.44)
N = 100, T = 50	no	253	0.14 (0.01)	(0.12, 0.16)	0.16 (0.01)	(0.14, 0.18)	0.43	(0.00, 0.50)	0.57	(0.50, 1.00)	1.34	(1.00, 427.95)
N = 100, T = 50	yes	247	0.16 (0.01)	(0.13, 0.18)	0.14 (0.01)	(0.12, 0.16)	0.56	(0.50, 0.99)	0.44	(0.01, 0.50)	1.29	(1.00, 178.16)
N = 100, T = 75	no	243	0.14 (0.01)	(0.12, 0.16)	0.16 (0.01)	(0.14, 0.18)	0.38	(0.00, 0.50)	0.62	(0.50, 1.00)	1.60	(1.00, 2.76e+06)
N = 100, T = 75	yes	257	0.15 (0.01)	(0.13, 0.17)	0.14 (0.01)	(0.12, 0.16)	0.60	(0.50, 1.00)	0.40	(0.00, 0.50)	1.52	(1.00, 3463.07)
N = 100, T = 100	no	268	0.14 (0.01)	(0.12, 0.16)	0.16 (0.01)	(0.14, 0.17)	0.39	(0.00, 0.50)	0.61	(0.50, 1.00)	1.57	(1.00, 5695.98)
N = 100, T = 100	yes	232	0.16 (0.01)	(0.14, 0.18)	0.14 (0.01)	(0.12, 0.16)	0.60	(0.50, 1.00)	0.40	(0.00, 0.50)	1.53	(1.00, 7.87e+04)
N = 150, T = 25	no	278	0.14 (0.01)	(0.12, 0.16)	0.16 (0.01)	(0.14, 0.18)	0.43	(0.01, 0.50)	0.57	(0.50, 0.99)	1.31	(1.00, 128.32)
N = 150, T = 25	yes	222	0.16 (0.02)	(0.13, 0.18)	0.14 (0.02)	(0.11, 0.16)	0.56	(0.50, 1.00)	0.44	(0.00, 0.50)	1.28	(1.00, 713.71)
N = 150, T = 50	no	250	0.14 (0.01)	(0.12, 0.16)	0.16 (0.01)	(0.14, 0.18)	0.43	(0.00, 0.50)	0.57	(0.50, 1.00)	1.35	(1.00, 465.78)
N = 150, T = 50	yes	250	0.16 (0.01)	(0.14, 0.17)	0.14 (0.01)	(0.12, 0.16)	0.58	(0.50, 1.00)	0.42	(0.00, 0.50)	1.38	(1.00, 678.94)
N = 150, T = 75	no	266	0.14 (0.01)	(0.13, 0.16)	0.15 (0.01)	(0.14, 0.17)	0.39	(0.00, 0.50)	0.61	(0.50, 1.00)	1.56	(1.00, 1978.80)
N = 150, T = 75	yes	234	0.16 (0.01)	(0.14, 0.17)	0.14 (0.01)	(0.13, 0.16)	0.62	(0.50, 1.00)	0.38	(0.00, 0.50)	1.61	(1.00, 1.07e+05)
N = 150, T = 100	no	235	0.14 (0.01)	(0.13, 0.16)	0.15 (0.01)	(0.14, 0.17)	0.40	(0.00, 0.50)	0.60	(0.50, 1.00)	1.52	(1.00, 2249.71)
N = 150, T = 100	yes	265	0.15 (0.01)	(0.14, 0.17)	0.14 (0.01)	(0.13, 0.16)	0.65	(0.50, 1.00)	0.35	(0.00, 0.50)	1.87	(1.00, 2484.87)

Table B14: Complete Statistical Results – Between-Subject Level for Set 2 H_1

			ϕ_{12}		ϕ_{21}		w_{H1}		w_{H1c}		ratio ww'	
Condition	Support H_1	$N_{datasets}$	Mean (SD)	(min, max)	Mean (SD)	(min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	414	0.14 (0.03)	(0.09, 0.18)	0.16 (0.03)	(0.11, 0.20)	0.27	(0.00, 0.38)	0.42	(0.00, 0.45)	1.65	(1.01, 1.65)
N = 50, T = 25	yes	86	0.17 (0.02)	(0.14, 0.20)	0.12 (0.02)	(0.07, 0.16)	0.49	(0.39, 0.99)	0.32	(0.01, 0.38)	1.55	(1.01, 140.92)
N = 50, T = 50	no	380	0.14 (0.02)	(0.11, 0.17)	0.15 (0.02)	(0.12, 0.19)	0.27	(0.00, 0.38)	0.43	(0.00, 0.45)	1.65	(1.03, 1.65)
N = 50, T = 50	yes	120	0.17 (0.02)	(0.14, 0.19)	0.12 (0.02)	(0.10, 0.15)	0.53	(0.39, 0.99)	0.29	(0.01, 0.38)	1.82	(1.01, 168.87)
N = 50, T = 75	no	382	0.14 (0.02)	(0.11, 0.17)	0.15 (0.02)	(0.13, 0.18)	0.27	(0.00, 0.38)	0.42	(0.00, 0.45)	1.65	(1.00, 1.65)
N = 50, T = 75	yes	118	0.17 (0.02)	(0.14, 0.20)	0.13 (0.02)	(0.10, 0.16)	0.55	(0.38, 1.00)	0.28	(0.00, 0.38)	1.99	(1.00, 1669.93)
N = 50, T = 100	no	373	0.14 (0.02)	(0.12, 0.17)	0.15 (0.02)	(0.13, 0.18)	0.27	(0.00, 0.38)	0.42	(0.00, 0.45)	1.65	(1.01, 1.65)
N = 50, T = 100	yes	127	0.16 (0.02)	(0.14, 0.19)	0.13 (0.02)	(0.11, 0.16)	0.61	(0.38, 1.00)	0.24	(0.00, 0.38)	2.55	(1.00, 3.15e+04)
N = 75, T = 25	no	407	0.14 (0.02)	(0.11, 0.18)	0.15 (0.02)	(0.12, 0.19)	0.27	(0.00, 0.38)	0.43	(0.01, 0.45)	1.65	(1.02, 1.65)
N = 75, T = 25	yes	93	0.18 (0.02)	(0.14, 0.21)	0.13 (0.02)	(0.10, 0.15)	0.52	(0.39, 0.99)	0.30	(0.01, 0.38)	1.77	(1.01, 139.17)
N = 75, T = 50	no	389	0.14 (0.02)	(0.12, 0.17)	0.15 (0.02)	(0.13, 0.18)	0.27	(0.00, 0.38)	0.43	(0.00, 0.45)	1.65	(1.01, 1.65)
N = 75, T = 50	yes	111	0.17 (0.01)	(0.14, 0.19)	0.13 (0.01)	(0.11, 0.15)	0.55	(0.38, 1.00)	0.28	(0.00, 0.38)	2.00	(1.00, 687.27)
N = 75, T = 75	no	385	0.14 (0.02)	(0.12, 0.17)	0.15 (0.01)	(0.13, 0.17)	0.27	(0.00, 0.38)	0.43	(0.00, 0.45)	1.65	(1.00, 1.65)
N = 75, T = 75	yes	115	0.16 (0.01)	(0.14, 0.19)	0.13 (0.01)	(0.11, 0.15)	0.59	(0.39, 1.00)	0.25	(0.00, 0.38)	2.36	(1.03, 1.81e+06)
N = 75, T = 100	no	362	0.14 (0.01)	(0.12, 0.16)	0.15 (0.01)	(0.13, 0.17)	0.26	(0.00, 0.38)	0.42	(0.00, 0.45)	1.65	(1.02, 1.65)
N = 75, T = 100	yes	138	0.16 (0.01)	(0.14, 0.18)	0.13 (0.01)	(0.12, 0.15)	0.57	(0.39, 1.00)	0.27	(0.00, 0.38)	2.12	(1.01, 2785.66)
N = 100, T = 25	no	408	0.14 (0.02)	(0.11, 0.17)	0.15 (0.02)	(0.12, 0.18)	0.27	(0.02, 0.38)	0.43	(0.03, 0.45)	1.65	(1.00, 1.65)
N = 100, T = 25	yes	92	0.17 (0.02)	(0.14, 0.19)	0.13 (0.02)	(0.10, 0.16)	0.48	(0.38, 0.99)	0.33	(0.00, 0.38)	1.46	(1.01, 282.30)
N = 100, T = 50	no	402	0.14 (0.01)	(0.12, 0.17)	0.15 (0.01)	(0.13, 0.18)	0.27	(0.00, 0.38)	0.43	(0.00, 0.45)	1.65	(1.01, 1.65)
N = 100, T = 50	yes	98	0.16 (0.01)	(0.14, 0.18)	0.13 (0.01)	(0.11, 0.15)	0.55	(0.38, 0.99)	0.28	(0.01, 0.38)	2.00	(1.00, 108.06)
N = 100, T = 75	no	378	0.14 (0.01)	(0.12, 0.16)	0.15 (0.01)	(0.13, 0.17)	0.27	(0.00, 0.38)	0.42	(0.00, 0.45)	1.65	(1.01, 1.65)
N = 100, T = 75	yes	122	0.16 (0.01)	(0.14, 0.18)	0.13 (0.01)	(0.11, 0.15)	0.60	(0.39, 1.00)	0.25	(0.00, 0.38)	2.37	(1.01, 2100.46)
N = 100, T = 100	no	390	0.14 (0.01)	(0.12, 0.16)	0.15 (0.01)	(0.13, 0.17)	0.27	(0.00, 0.38)	0.42	(0.00, 0.45)	1.65	(1.01, 1.65)
N = 100, T = 100	yes	110	0.16 (0.01)	(0.14, 0.18)	0.14 (0.01)	(0.12, 0.15)	0.61	(0.39, 1.00)	0.25	(0.00, 0.38)	2.46	(1.02, 4.77e+04)
N = 150, T = 25	no	419	0.14 (0.02)	(0.12, 0.17)	0.15 (0.02)	(0.13, 0.18)	0.27	(0.01, 0.38)	0.43	(0.01, 0.45)	1.65	(1.00, 1.65)
N = 150, T = 25	yes	81	0.16 (0.01)	(0.14, 0.19)	0.13 (0.02)	(0.11, 0.16)	0.55	(0.38, 1.00)	0.28	(0.00, 0.38)	1.93	(1.00, 432.89)
N = 150, T = 50	no	400	0.15 (0.01)	(0.13, 0.16)	0.15 (0.01)	(0.13, 0.17)	0.27	(0.00, 0.38)	0.43	(0.00, 0.45)	1.65	(1.02, 1.65)
N = 150, T = 50	yes	100	0.16 (0.01)	(0.15, 0.18)	0.14 (0.01)	(0.12, 0.15)	0.54	(0.38, 1.00)	0.29	(0.00, 0.38)	1.86	(1.00, 411.80)
N = 150, T = 75	no	385	0.14 (0.01)	(0.13, 0.16)	0.15 (0.01)	(0.13, 0.17)	0.26	(0.00, 0.38)	0.42	(0.00, 0.45)	1.65	(1.02, 1.65)
N = 150, T = 75	yes	115	0.16 (0.01)	(0.15, 0.17)	0.14 (0.01)	(0.12, 0.16)	0.61	(0.39, 1.00)	0.24	(0.00, 0.38)	2.50	(1.01, 6.50e+04)
N = 150, T = 100	no	352	0.15 (0.01)	(0.13, 0.16)	0.15 (0.01)	(0.14, 0.17)	0.27	(0.00, 0.38)	0.42	(0.00, 0.45)	1.65	(1.00, 1.65)
N = 150, T = 100	yes	148	0.16 (0.01)	(0.14, 0.17)	0.14 (0.01)	(0.13, 0.15)	0.60	(0.39, 1.00)	0.25	(0.00, 0.38)	2.39	(1.02, 1507.15)

Table B15: Complete Statistical Results – Between-Subject Level for Set 3 H_{a1}

			ϕ_{12}		ϕ_{21}		w_{Ha1}		w_{Ha1c}		ratio ww'	
Condition	Support H_{a1}	$N_{datasets}$	Mean (SD)	(min, max)	Mean (SD)	(min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	9	0.11 (0.04)	(0.07, 0.17)	0.17 (0.07)	(0.05, 0.22)	0.39	(0.21, 0.50)	0.61	(0.50, 0.79)	1.53	(1.00, 3.77)
N = 50, T = 25	yes	491	0.14 (0.03)	(0.09, 0.19)	0.15 (0.03)	(0.10, 0.20)	0.76	(0.50, 0.88)	0.24	(0.12, 0.50)	3.18	(1.01, 7.22)
N = 50, T = 50	no	2	0.09 (0.01)	(0.08, 0.09)	0.17 (0.01)	(0.17, 0.18)	0.48	(0.47, 0.49)	0.52	(0.51, 0.53)	1.07	(1.03, 1.11)
N = 50, T = 50	yes	498	0.15 (0.02)	(0.11, 0.18)	0.15 (0.02)	(0.11, 0.18)	0.83	(0.51, 0.96)	0.17	(0.04, 0.49)	4.90	(1.05, 21.82)
N = 50, T = 75	no	4	0.12 (0.06)	(0.08, 0.19)	0.17 (0.03)	(0.13, 0.19)	0.40	(0.36, 0.49)	0.60	(0.51, 0.64)	1.53	(1.04, 1.78)
N = 50, T = 75	yes	496	0.15 (0.02)	(0.12, 0.18)	0.15 (0.02)	(0.11, 0.18)	0.90	(0.52, 0.98)	0.10	(0.02, 0.48)	8.74	(1.09, 61.48)
N = 50, T = 100	no	3	0.17 (0.05)	(0.12, 0.20)	0.14 (0.04)	(0.10, 0.18)	0.48	(0.34, 0.49)	0.52	(0.51, 0.66)	1.07	(1.05, 1.96)
N = 50, T = 100	yes	497	0.15 (0.02)	(0.12, 0.18)	0.15 (0.02)	(0.12, 0.18)	0.94	(0.55, 0.99)	0.06	(0.01, 0.45)	14.84	(1.22, 158.61)
N = 75, T = 25	no	2	0.14 (0.08)	(0.09, 0.19)	0.14 (0.06)	(0.10, 0.18)	0.42	(0.42, 0.42)	0.58	(0.58, 0.58)	1.38	(1.38, 1.38)
N = 75, T = 25	yes	498	0.15 (0.03)	(0.11, 0.19)	0.15 (0.02)	(0.11, 0.19)	0.81	(0.50, 0.92)	0.19	(0.08, 0.50)	4.15	(1.00, 11.61)
N = 75, T = 50	yes	500	0.15 (0.02)	(0.12, 0.18)	0.15 (0.02)	(0.12, 0.18)	0.91	(0.55, 0.98)	0.09	(0.02, 0.45)	10.02	(1.22, 64.86)
N = 75, T = 75	no	2	0.14 (0.07)	(0.10, 0.18)	0.14 (0.05)	(0.10, 0.17)	0.25	(0.12, 0.39)	0.75	(0.61, 0.88)	4.63	(1.58, 7.68)
N = 75, T = 75	yes	498	0.15 (0.02)	(0.12, 0.17)	0.15 (0.02)	(0.12, 0.17)	0.96	(0.51, 1.00)	0.04	(0.00, 0.49)	24.55	(1.04, 298.42)
N = 75, T = 100	yes	500	0.15 (0.02)	(0.12, 0.17)	0.15 (0.02)	(0.12, 0.17)	0.98	(0.56, 1.00)	0.02	(0.00, 0.44)	42.57	(1.25, 1568.05)
N = 100, T = 25	no	1	0.19 (NA)	(0.19, 0.19)	0.10 (NA)	(0.10, 0.10)	0.46	(0.46, 0.46)	0.54	(0.54, 0.54)	1.17	(1.17, 1.17)
N = 100, T = 25	yes	499	0.15 (0.02)	(0.11, 0.18)	0.15 (0.02)	(0.11, 0.18)	0.85	(0.54, 0.95)	0.15	(0.05, 0.46)	5.85	(1.19, 18.80)
N = 100, T = 50	yes	500	0.15 (0.02)	(0.12, 0.17)	0.15 (0.02)	(0.12, 0.17)	0.96	(0.69, 0.99)	0.04	(0.01, 0.31)	21.95	(2.28, 158.23)
N = 100, T = 75	no	1	0.10 (NA)	(0.10, 0.10)	0.18 (NA)	(0.18, 0.18)	0.30	(0.30, 0.30)	0.70	(0.70, 0.70)	2.29	(2.29, 2.29)
N = 100, T = 75	yes	499	0.15 (0.01)	(0.12, 0.17)	0.15 (0.01)	(0.12, 0.17)	0.98	(0.53, 1.00)	0.02	(0.00, 0.47)	61.62	(1.12, 1363.69)
N = 100, T = 100	yes	500	0.15 (0.01)	(0.13, 0.17)	0.15 (0.01)	(0.13, 0.17)	1.00	(0.67, 1.00)	0.00	(0.00, 0.33)	271.29	(2.07, 9858.86)
N = 150, T = 25	yes	500	0.15 (0.02)	(0.12, 0.18)	0.15 (0.02)	(0.12, 0.18)	0.92	(0.56, 0.98)	0.08	(0.02, 0.44)	10.87	(1.29, 54.47)
N = 150, T = 50	yes	500	0.15 (0.01)	(0.13, 0.17)	0.15 (0.01)	(0.13, 0.17)	0.99	(0.72, 1.00)	0.01	(0.00, 0.28)	86.97	(2.63, 1422.93)
N = 150, T = 75	yes	500	0.15 (0.01)	(0.13, 0.17)	0.15 (0.01)	(0.13, 0.17)	1.00	(0.69, 1.00)	0.00	(0.00, 0.31)	537.61	(2.27, 2.49e+04)
N = 150, T = 100	yes	500	0.15 (0.01)	(0.13, 0.17)	0.15 (0.01)	(0.13, 0.17)	1.00	(0.80, 1.00)	0.00	(0.00, 0.20)	4858.49	(3.99, 5.86e+05)

Table B16: Complete Statistical Results – Between-Subject Level for Set 4 H_{a2}

Condition	Support H_{a2}	$N_{datasets}$	ϕ_{12} Mean (SD)	ϕ_{12} (min, max)	ϕ_{21} Mean (SD)	ϕ_{21} (min, max)	w_{Ha2} Median	w_{Ha2} (min, max)	w_{Ha2c} Median	w_{Ha2c} (min, max)	ratio ww' Median	ratio ww' (min, max)
N = 50, T = 25	no	77	0.13 (0.04)	(0.07, 0.19)	0.16 (0.05)	(0.08, 0.22)	0.33	(0.01, 0.50)	0.67	(0.50, 0.99)	2.07	(1.02, 76.86)
N = 50, T = 25	yes	423	0.15 (0.03)	(0.10, 0.19)	0.15 (0.03)	(0.10, 0.19)	0.71	(0.50, 0.74)	0.29	(0.26, 0.50)	2.50	(1.00, 2.82)
N = 50, T = 50	no	79	0.14 (0.03)	(0.10, 0.19)	0.15 (0.03)	(0.10, 0.19)	0.36	(0.02, 0.50)	0.64	(0.50, 0.98)	1.76	(1.00, 39.35)
N = 50, T = 50	yes	421	0.15 (0.02)	(0.11, 0.18)	0.15 (0.02)	(0.11, 0.18)	0.72	(0.51, 0.75)	0.28	(0.25, 0.49)	2.61	(1.03, 2.95)
N = 50, T = 75	no	72	0.14 (0.03)	(0.10, 0.20)	0.15 (0.03)	(0.11, 0.19)	0.30	(0.00, 0.49)	0.70	(0.51, 1.00)	2.37	(1.04, 400.72)
N = 50, T = 75	yes	428	0.15 (0.02)	(0.12, 0.18)	0.15 (0.02)	(0.12, 0.18)	0.72	(0.51, 0.75)	0.28	(0.25, 0.49)	2.61	(1.02, 3.07)
N = 50, T = 100	no	96	0.15 (0.03)	(0.11, 0.19)	0.15 (0.03)	(0.11, 0.19)	0.29	(0.00, 0.50)	0.71	(0.50, 1.00)	2.50	(1.00, 1602.62)
N = 50, T = 100	yes	404	0.15 (0.02)	(0.12, 0.18)	0.15 (0.02)	(0.12, 0.17)	0.73	(0.50, 0.76)	0.27	(0.24, 0.50)	2.66	(1.00, 3.17)
N = 75, T = 25	no	64	0.16 (0.04)	(0.10, 0.21)	0.14 (0.03)	(0.10, 0.19)	0.33	(0.03, 0.50)	0.67	(0.50, 0.97)	2.04	(1.01, 30.03)
N = 75, T = 25	yes	436	0.15 (0.02)	(0.11, 0.18)	0.15 (0.02)	(0.11, 0.19)	0.72	(0.50, 0.74)	0.28	(0.26, 0.50)	2.61	(1.01, 2.87)
N = 75, T = 50	no	61	0.15 (0.03)	(0.11, 0.19)	0.15 (0.03)	(0.11, 0.19)	0.39	(0.01, 0.50)	0.61	(0.50, 0.99)	1.60	(1.00, 73.10)
N = 75, T = 50	yes	439	0.15 (0.02)	(0.12, 0.17)	0.15 (0.02)	(0.12, 0.17)	0.73	(0.50, 0.75)	0.27	(0.25, 0.50)	2.66	(1.01, 3.08)
N = 75, T = 75	no	72	0.15 (0.03)	(0.11, 0.19)	0.15 (0.03)	(0.11, 0.18)	0.30	(0.00, 0.50)	0.70	(0.50, 1.00)	2.30	(1.00, 4.99e+04)
N = 75, T = 75	yes	428	0.15 (0.01)	(0.12, 0.17)	0.15 (0.01)	(0.12, 0.17)	0.73	(0.50, 0.77)	0.27	(0.23, 0.50)	2.71	(1.01, 3.26)
N = 75, T = 100	no	86	0.14 (0.02)	(0.11, 0.18)	0.15 (0.02)	(0.11, 0.18)	0.29	(0.00, 0.49)	0.71	(0.51, 1.00)	2.50	(1.03, 1013.16)
N = 75, T = 100	yes	414	0.15 (0.01)	(0.12, 0.17)	0.15 (0.01)	(0.13, 0.17)	0.73	(0.50, 0.77)	0.27	(0.23, 0.50)	2.67	(1.02, 3.44)
N = 100, T = 25	no	49	0.15 (0.04)	(0.10, 0.19)	0.15 (0.03)	(0.10, 0.19)	0.37	(0.02, 0.50)	0.63	(0.50, 0.98)	1.74	(1.01, 46.09)
N = 100, T = 25	yes	451	0.15 (0.02)	(0.12, 0.18)	0.15 (0.02)	(0.11, 0.18)	0.73	(0.50, 0.74)	0.27	(0.26, 0.50)	2.64	(1.01, 2.92)
N = 100, T = 50	no	59	0.15 (0.02)	(0.12, 0.18)	0.15 (0.03)	(0.11, 0.19)	0.36	(0.04, 0.50)	0.64	(0.50, 0.96)	1.75	(1.00, 24.94)
N = 100, T = 50	yes	441	0.15 (0.01)	(0.13, 0.17)	0.15 (0.01)	(0.12, 0.17)	0.73	(0.51, 0.76)	0.27	(0.24, 0.49)	2.71	(1.04, 3.16)
N = 100, T = 75	no	62	0.15 (0.02)	(0.11, 0.18)	0.15 (0.02)	(0.11, 0.19)	0.34	(0.00, 0.50)	0.66	(0.50, 1.00)	1.96	(1.02, 2.78e+04)
N = 100, T = 75	yes	438	0.15 (0.01)	(0.13, 0.17)	0.15 (0.01)	(0.13, 0.17)	0.73	(0.50, 0.78)	0.27	(0.22, 0.50)	2.69	(1.01, 3.46)
N = 100, T = 100	no	63	0.15 (0.02)	(0.12, 0.18)	0.15 (0.02)	(0.12, 0.18)	0.31	(0.00, 0.49)	0.69	(0.51, 1.00)	2.22	(1.03, 886.01)
N = 100, T = 100	yes	437	0.15 (0.01)	(0.13, 0.17)	0.15 (0.01)	(0.13, 0.17)	0.73	(0.52, 0.79)	0.27	(0.21, 0.48)	2.72	(1.06, 3.77)
N = 150, T = 25	no	41	0.14 (0.03)	(0.11, 0.19)	0.15 (0.03)	(0.10, 0.19)	0.33	(0.02, 0.50)	0.67	(0.50, 0.98)	2.00	(1.00, 51.68)
N = 150, T = 25	yes	459	0.15 (0.02)	(0.12, 0.18)	0.15 (0.02)	(0.12, 0.18)	0.73	(0.51, 0.75)	0.27	(0.25, 0.49)	2.68	(1.05, 3.05)
N = 150, T = 50	no	52	0.15 (0.02)	(0.12, 0.18)	0.14 (0.02)	(0.11, 0.18)	0.29	(0.03, 0.50)	0.71	(0.50, 0.97)	2.50	(1.01, 27.84)
N = 150, T = 50	yes	448	0.15 (0.01)	(0.13, 0.17)	0.15 (0.01)	(0.13, 0.17)	0.73	(0.51, 0.78)	0.27	(0.22, 0.49)	2.72	(1.04, 3.47)
N = 150, T = 75	no	50	0.15 (0.02)	(0.12, 0.18)	0.15 (0.02)	(0.12, 0.18)	0.33	(0.00, 0.50)	0.67	(0.50, 1.00)	2.09	(1.00, 972.48)
N = 150, T = 75	yes	450	0.15 (0.01)	(0.13, 0.17)	0.15 (0.01)	(0.13, 0.17)	0.73	(0.50, 0.79)	0.27	(0.21, 0.50)	2.72	(1.01, 3.87)
N = 150, T = 100	no	56	0.15 (0.02)	(0.13, 0.17)	0.15 (0.02)	(0.12, 0.17)	0.29	(0.03, 0.48)	0.71	(0.52, 0.97)	2.44	(1.06, 31.94)
N = 150, T = 100	yes	444	0.15 (0.01)	(0.13, 0.16)	0.15 (0.01)	(0.13, 0.16)	0.73	(0.50, 0.82)	0.27	(0.18, 0.50)	2.72	(1.01, 4.43)

B5 Between Person Plot

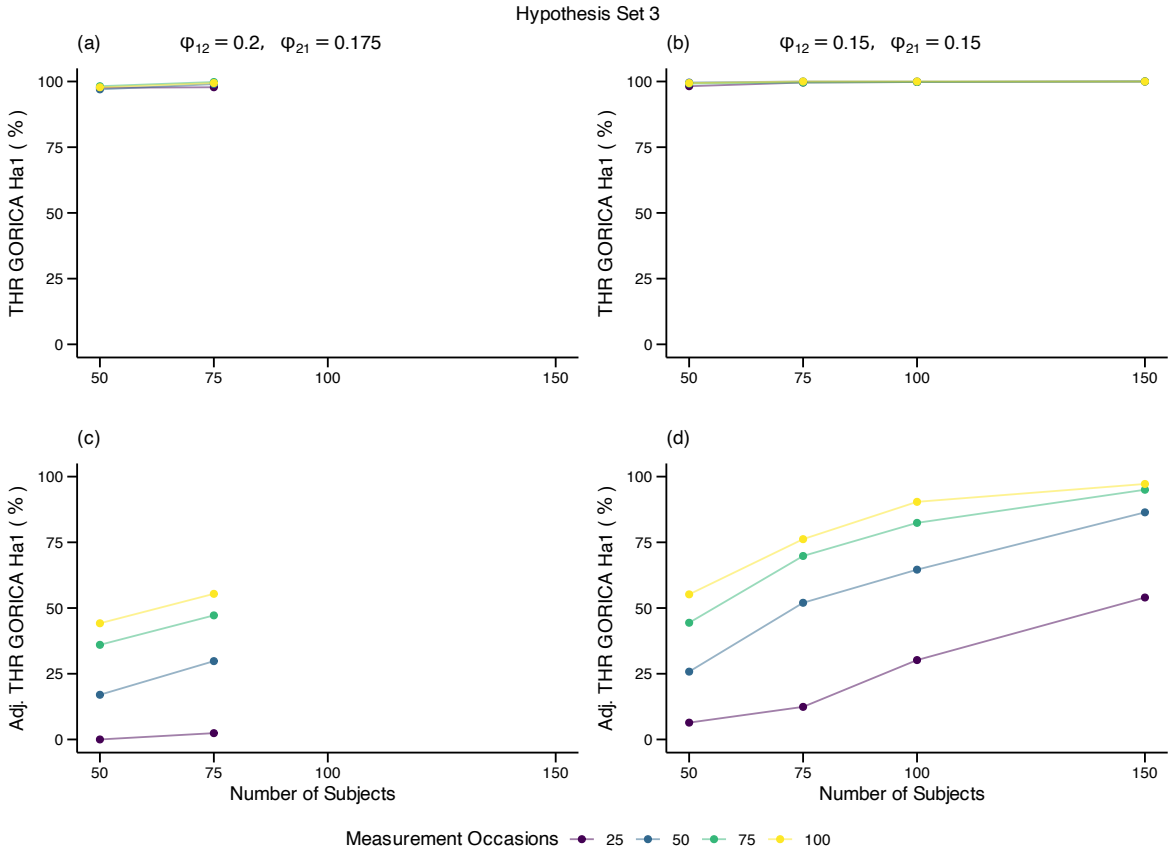

Figure 1: True hypothesis rates (THR) when evaluating H_{a1} : $-0.05 < |\phi_{12}| - |\phi_{21}| < 0.05$ against H_{a1c}: not H_{a1} in a multilevel bivariate VAR(1) model with the GORICA, and adjusted (Adj.) THRs corrected for the support in of the boundary for two sets of cross-lagged parameters.

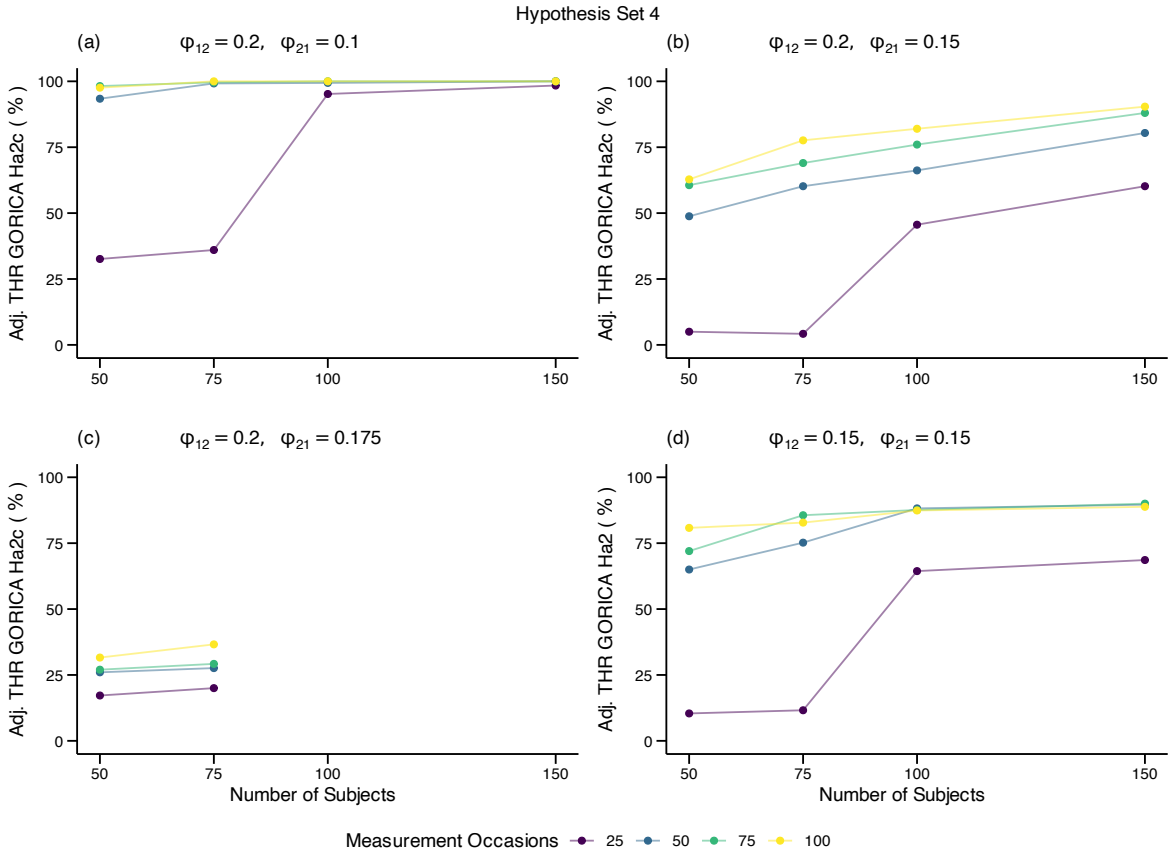

Figure 2: Adjusted (Adj.) True hypothesis rates (THR) when evaluating $H_{a2} : -0.01 < |\phi_{12}| - |\phi_{21}| < 0.01$ against H_{a2c}: not H_{a2} in a multilevel bivariate VAR(1) model with the GORICA for four sets of cross-lagged parameters.

C Within-subject Tables

C1 $\phi_{12} = 0.20, \phi_{21} = 0.10$

Table C1: Complete Statistical Results - Pooled Data

			ϕ_{12}		ϕ_{21}		w_{H1}		w_{H1c}		ratio ww'	
Condition	Support H_1	N_{pooled}	Mean (SD)	(min, max)	Mean (SD)	(min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	4003	0.12 (0.06)	(0.01, 0.22)	0.17 (0.07)	(0.08, 0.27)	0.49	(0.09, 0.50)	0.51	(0.50, 0.91)	1.04	(1.00, 10.28)
N = 50, T = 25	yes	20997	0.20 (0.06)	(0.12, 0.30)	0.09 (0.06)	(-0.02, 0.18)	0.57	(0.50, 1.00)	0.43	(0.00, 0.50)	1.34	(1.00, 253.98)
N = 50, T = 50	no	3842	0.12 (0.06)	(0.01, 0.22)	0.17 (0.07)	(0.07, 0.28)	0.49	(0.03, 0.50)	0.51	(0.50, 0.97)	1.06	(1.00, 36.89)
N = 50, T = 50	yes	21158	0.21 (0.06)	(0.12, 0.31)	0.09 (0.06)	(-0.02, 0.19)	0.62	(0.50, 1.00)	0.38	(0.00, 0.50)	1.61	(1.00, 338.36)
N = 50, T = 75	no	4214	0.12 (0.07)	(0.01, 0.22)	0.17 (0.07)	(0.07, 0.28)	0.48	(0.03, 0.50)	0.52	(0.50, 0.97)	1.09	(1.00, 34.39)
N = 50, T = 75	yes	20786	0.21 (0.06)	(0.11, 0.31)	0.09 (0.07)	(-0.03, 0.19)	0.65	(0.50, 1.00)	0.35	(0.00, 0.50)	1.85	(1.00, 1.70e+04)
N = 50, T = 100	no	4669	0.12 (0.07)	(0.01, 0.22)	0.18 (0.07)	(0.07, 0.29)	0.47	(0.00, 0.50)	0.53	(0.50, 1.00)	1.11	(1.00, 1215.74)
N = 50, T = 100	yes	20331	0.21 (0.06)	(0.11, 0.32)	0.08 (0.07)	(-0.04, 0.20)	0.67	(0.50, 1.00)	0.33	(0.00, 0.50)	2.00	(1.00, 5.13e+04)
N = 75, T = 25	no	4821	0.13 (0.06)	(0.03, 0.22)	0.17 (0.06)	(0.08, 0.27)	0.49	(0.12, 0.50)	0.51	(0.50, 0.88)	1.03	(1.00, 7.24)
N = 75, T = 25	yes	32679	0.20 (0.05)	(0.12, 0.29)	0.09 (0.06)	(-0.01, 0.18)	0.58	(0.50, 1.00)	0.42	(0.00, 0.50)	1.36	(1.00, 255.99)
N = 75, T = 50	no	5287	0.12 (0.06)	(0.02, 0.22)	0.17 (0.07)	(0.08, 0.27)	0.49	(0.02, 0.50)	0.51	(0.50, 0.98)	1.06	(1.00, 58.36)
N = 75, T = 50	yes	32213	0.20 (0.05)	(0.12, 0.30)	0.09 (0.06)	(-0.02, 0.18)	0.61	(0.50, 1.00)	0.39	(0.00, 0.50)	1.59	(1.00, 694.65)
N = 75, T = 75	no	6379	0.12 (0.06)	(0.02, 0.22)	0.17 (0.07)	(0.08, 0.28)	0.48	(0.01, 0.50)	0.52	(0.50, 0.99)	1.08	(1.00, 81.45)
N = 75, T = 75	yes	31121	0.21 (0.06)	(0.11, 0.31)	0.09 (0.07)	(-0.03, 0.19)	0.64	(0.50, 1.00)	0.36	(0.00, 0.50)	1.79	(1.00, 6092.91)
N = 75, T = 100	no	6688	0.12 (0.06)	(0.01, 0.22)	0.17 (0.07)	(0.07, 0.28)	0.47	(0.00, 0.50)	0.53	(0.50, 1.00)	1.11	(1.00, 369.36)
N = 75, T = 100	yes	30812	0.21 (0.06)	(0.11, 0.31)	0.09 (0.07)	(-0.03, 0.19)	0.67	(0.50, 1.00)	0.33	(0.00, 0.50)	2.07	(1.00, 2.30e+05)
N = 100, T = 25	no	5706	0.12 (0.06)	(0.02, 0.21)	0.17 (0.06)	(0.09, 0.26)	0.49	(0.09, 0.50)	0.51	(0.50, 0.91)	1.03	(1.00, 9.56)
N = 100, T = 25	yes	44294	0.20 (0.05)	(0.13, 0.28)	0.09 (0.05)	(-0.00, 0.17)	0.58	(0.50, 1.00)	0.42	(0.00, 0.50)	1.39	(1.00, 362.36)
N = 100, T = 50	no	7052	0.13 (0.06)	(0.03, 0.21)	0.17 (0.06)	(0.08, 0.27)	0.49	(0.03, 0.50)	0.51	(0.50, 0.97)	1.05	(1.00, 31.98)
N = 100, T = 50	yes	42948	0.20 (0.05)	(0.12, 0.29)	0.09 (0.06)	(-0.01, 0.18)	0.62	(0.50, 1.00)	0.38	(0.00, 0.50)	1.60	(1.00, 2417.66)
N = 100, T = 75	no	7953	0.13 (0.06)	(0.02, 0.22)	0.17 (0.06)	(0.08, 0.27)	0.48	(0.01, 0.50)	0.52	(0.50, 0.99)	1.08	(1.00, 68.78)
N = 100, T = 75	yes	42047	0.21 (0.06)	(0.12, 0.30)	0.09 (0.06)	(-0.02, 0.19)	0.65	(0.50, 1.00)	0.35	(0.00, 0.50)	1.84	(1.00, 1.41e+04)
N = 100, T = 100	no	9184	0.12 (0.06)	(0.02, 0.22)	0.18 (0.07)	(0.08, 0.28)	0.47	(0.00, 0.50)	0.53	(0.50, 1.00)	1.11	(1.00, 3403.46)
N = 100, T = 100	yes	40816	0.21 (0.06)	(0.11, 0.31)	0.08 (0.07)	(-0.04, 0.19)	0.67	(0.50, 1.00)	0.33	(0.00, 0.50)	2.01	(1.00, 9.28e+05)
N = 150, T = 25	no	7514	0.13 (0.05)	(0.04, 0.21)	0.17 (0.05)	(0.09, 0.26)	0.49	(0.11, 0.50)	0.51	(0.50, 0.89)	1.03	(1.00, 8.15)
N = 150, T = 25	yes	67486	0.20 (0.04)	(0.13, 0.28)	0.10 (0.05)	(0.01, 0.17)	0.58	(0.50, 0.99)	0.42	(0.01, 0.50)	1.39	(1.00, 101.02)
N = 150, T = 50	no	9963	0.13 (0.06)	(0.03, 0.21)	0.17 (0.06)	(0.09, 0.26)	0.49	(0.01, 0.50)	0.51	(0.50, 0.99)	1.05	(1.00, 107.36)
N = 150, T = 50	yes	65037	0.20 (0.05)	(0.12, 0.29)	0.09 (0.06)	(-0.01, 0.18)	0.62	(0.50, 1.00)	0.38	(0.00, 0.50)	1.61	(1.00, 1854.34)
N = 150, T = 75	no	11952	0.13 (0.06)	(0.03, 0.22)	0.17 (0.06)	(0.08, 0.27)	0.48	(0.01, 0.50)	0.52	(0.50, 0.99)	1.07	(1.00, 138.49)
N = 150, T = 75	yes	63048	0.21 (0.06)	(0.11, 0.30)	0.09 (0.06)	(-0.02, 0.19)	0.64	(0.50, 1.00)	0.36	(0.00, 0.50)	1.81	(1.00, 2.65e+04)
N = 150, T = 100	no	13211	0.12 (0.06)	(0.02, 0.22)	0.17 (0.07)	(0.08, 0.28)	0.47	(0.00, 0.50)	0.53	(0.50, 1.00)	1.11	(1.00, 509.71)
N = 150, T = 100	yes	61789	0.21 (0.06)	(0.11, 0.31)	0.09 (0.07)	(-0.03, 0.19)	0.67	(0.50, 1.00)	0.33	(0.00, 0.50)	2.04	(1.00, 1.21e+06)

Table C2: Complete Statistical Results - Pooled Data

			ϕ_{12}		ϕ_{21}		w_{H1}		w_{H1c}		ratio ww'	
Condition	Support H_1	N_{pooled}	Mean (SD)	(min, max)	Mean (SD)	(min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	17981	0.17 (0.06)	(0.07, 0.25)	0.12 (0.07)	(0.01, 0.23)	0.29	(0.08, 0.38)	0.44	(0.13, 0.45)	1.51	(1.00, 1.65)
N = 50, T = 25	yes	7019	0.25 (0.05)	(0.18, 0.34)	0.06 (0.05)	(-0.02, 0.14)	0.47	(0.38, 0.99)	0.33	(0.01, 0.38)	1.40	(1.00, 154.05)
N = 50, T = 50	no	14730	0.16 (0.06)	(0.06, 0.25)	0.13 (0.07)	(0.02, 0.24)	0.29	(0.03, 0.38)	0.43	(0.04, 0.45)	1.52	(1.00, 1.65)
N = 50, T = 50	yes	10270	0.24 (0.05)	(0.17, 0.33)	0.06 (0.05)	(-0.03, 0.15)	0.51	(0.38, 0.99)	0.30	(0.00, 0.38)	1.70	(1.00, 205.22)
N = 50, T = 75	no	13439	0.16 (0.06)	(0.05, 0.25)	0.13 (0.07)	(0.01, 0.25)	0.29	(0.03, 0.38)	0.43	(0.04, 0.45)	1.56	(1.00, 1.65)
N = 50, T = 75	yes	11561	0.24 (0.05)	(0.16, 0.33)	0.06 (0.06)	(-0.04, 0.15)	0.56	(0.38, 1.00)	0.27	(0.00, 0.38)	2.06	(1.00, 1.03e+04)
N = 50, T = 100	no	13131	0.15 (0.06)	(0.04, 0.25)	0.14 (0.08)	(0.01, 0.25)	0.28	(0.00, 0.38)	0.43	(0.00, 0.45)	1.59	(1.00, 1.65)
N = 50, T = 100	yes	11869	0.24 (0.06)	(0.15, 0.33)	0.06 (0.06)	(-0.04, 0.16)	0.60	(0.38, 1.00)	0.25	(0.00, 0.38)	2.39	(1.00, 3.11e+04)
N = 75, T = 25	no	26340	0.17 (0.05)	(0.08, 0.25)	0.12 (0.06)	(0.03, 0.22)	0.30	(0.10, 0.38)	0.44	(0.17, 0.45)	1.48	(1.00, 1.65)
N = 75, T = 25	yes	11160	0.24 (0.04)	(0.18, 0.32)	0.06 (0.05)	(-0.02, 0.14)	0.46	(0.38, 0.99)	0.34	(0.01, 0.38)	1.38	(1.00, 155.27)
N = 75, T = 50	no	22101	0.16 (0.06)	(0.07, 0.25)	0.13 (0.07)	(0.03, 0.23)	0.29	(0.02, 0.38)	0.43	(0.03, 0.45)	1.51	(1.00, 1.65)
N = 75, T = 50	yes	15399	0.23 (0.05)	(0.16, 0.32)	0.06 (0.05)	(-0.03, 0.15)	0.51	(0.38, 1.00)	0.30	(0.00, 0.38)	1.69	(1.00, 421.33)
N = 75, T = 75	no	20616	0.16 (0.06)	(0.06, 0.25)	0.13 (0.07)	(0.02, 0.24)	0.29	(0.01, 0.38)	0.43	(0.02, 0.45)	1.56	(1.00, 1.65)
N = 75, T = 75	yes	16884	0.23 (0.05)	(0.16, 0.32)	0.06 (0.06)	(-0.03, 0.16)	0.56	(0.38, 1.00)	0.27	(0.00, 0.38)	2.04	(1.00, 3695.54)
N = 75, T = 100	no	18991	0.15 (0.06)	(0.05, 0.25)	0.14 (0.07)	(0.02, 0.25)	0.28	(0.00, 0.38)	0.43	(0.00, 0.45)	1.59	(1.00, 1.65)
N = 75, T = 100	yes	18509	0.23 (0.05)	(0.15, 0.33)	0.06 (0.06)	(-0.04, 0.16)	0.60	(0.38, 1.00)	0.25	(0.00, 0.38)	2.39	(1.00, 1.39e+05)
N = 100, T = 25	no	34315	0.17 (0.05)	(0.09, 0.25)	0.12 (0.06)	(0.04, 0.21)	0.30	(0.08, 0.38)	0.43	(0.14, 0.45)	1.46	(1.00, 1.65)
N = 100, T = 25	yes	15685	0.24 (0.04)	(0.18, 0.31)	0.06 (0.05)	(-0.02, 0.13)	0.46	(0.38, 0.99)	0.34	(0.00, 0.38)	1.38	(1.00, 219.78)
N = 100, T = 50	no	29321	0.17 (0.05)	(0.07, 0.25)	0.13 (0.06)	(0.03, 0.23)	0.29	(0.03, 0.38)	0.43	(0.05, 0.45)	1.51	(1.00, 1.65)
N = 100, T = 50	yes	20679	0.23 (0.05)	(0.16, 0.31)	0.06 (0.05)	(-0.03, 0.14)	0.51	(0.38, 1.00)	0.30	(0.00, 0.38)	1.68	(1.00, 1466.39)
N = 100, T = 75	no	26701	0.16 (0.06)	(0.06, 0.25)	0.13 (0.07)	(0.03, 0.24)	0.29	(0.01, 0.38)	0.44	(0.02, 0.45)	1.55	(1.00, 1.65)
N = 100, T = 75	yes	23299	0.23 (0.05)	(0.16, 0.32)	0.06 (0.06)	(-0.03, 0.15)	0.56	(0.38, 1.00)	0.27	(0.00, 0.38)	2.04	(1.00, 8529.45)
N = 100, T = 100	no	26033	0.15 (0.06)	(0.05, 0.25)	0.14 (0.07)	(0.02, 0.25)	0.28	(0.00, 0.38)	0.43	(0.00, 0.45)	1.59	(1.00, 1.65)
N = 100, T = 100	yes	23967	0.23 (0.05)	(0.15, 0.33)	0.06 (0.06)	(-0.04, 0.16)	0.60	(0.38, 1.00)	0.25	(0.00, 0.38)	2.41	(1.00, 5.63e+05)
N = 150, T = 25	no	51058	0.18 (0.05)	(0.10, 0.24)	0.12 (0.05)	(0.05, 0.21)	0.30	(0.09, 0.38)	0.43	(0.15, 0.45)	1.45	(1.00, 1.65)
N = 150, T = 25	yes	23942	0.23 (0.04)	(0.18, 0.30)	0.06 (0.04)	(-0.01, 0.13)	0.46	(0.38, 0.97)	0.34	(0.02, 0.38)	1.37	(1.00, 61.27)
N = 150, T = 50	no	43423	0.17 (0.05)	(0.08, 0.25)	0.13 (0.06)	(0.04, 0.22)	0.29	(0.01, 0.38)	0.43	(0.01, 0.45)	1.50	(1.00, 1.65)
N = 150, T = 50	yes	31577	0.23 (0.04)	(0.16, 0.31)	0.06 (0.05)	(-0.02, 0.14)	0.52	(0.38, 1.00)	0.30	(0.00, 0.38)	1.71	(1.00, 1124.71)
N = 150, T = 75	no	40468	0.16 (0.06)	(0.06, 0.25)	0.13 (0.07)	(0.03, 0.24)	0.29	(0.01, 0.38)	0.43	(0.01, 0.45)	1.55	(1.00, 1.65)
N = 150, T = 75	yes	34532	0.23 (0.05)	(0.15, 0.32)	0.06 (0.06)	(-0.03, 0.15)	0.56	(0.38, 1.00)	0.28	(0.00, 0.38)	2.03	(1.00, 1.61e+04)
N = 150, T = 100	no	38467	0.16 (0.06)	(0.05, 0.25)	0.14 (0.07)	(0.02, 0.25)	0.28	(0.00, 0.38)	0.43	(0.00, 0.45)	1.58	(1.00, 1.65)
N = 150, T = 100	yes	36533	0.23 (0.05)	(0.15, 0.32)	0.06 (0.06)	(-0.04, 0.16)	0.60	(0.38, 1.00)	0.25	(0.00, 0.38)	2.37	(1.00, 7.32e+05)

Table C3: Complete Statistical Results - Pooled Data for Set 3 H_{a1c}

Condition	Support H_{a1c}	N_{pooled}	ϕ_{12} Mean (SD) (min, max)	ϕ_{21} Mean (SD) (min, max)	w_{Ha1c} Median (min, max)	w_{Ha1} Median (min, max)	ratio ww' Median (min, max)
N = 50, T = 25	no	24386	0.19 (0.06) (0.08, 0.28)	0.10 (0.07) (-0.01, 0.21)	0.28 (0.25, 0.50)	0.72 (0.50, 0.75)	2.60 (1.00, 3.00)
N = 50, T = 25	yes	614	0.32 (0.05) (0.25, 0.40)	0.04 (0.06) (-0.02, 0.13)	0.56 (0.50, 0.97)	0.44 (0.03, 0.50)	1.29 (1.00, 31.64)
N = 50, T = 50	no	23173	0.19 (0.06) (0.08, 0.28)	0.11 (0.07) (-0.01, 0.22)	0.28 (0.22, 0.50)	0.72 (0.50, 0.78)	2.55 (1.00, 3.47)
N = 50, T = 50	yes	1827	0.29 (0.05) (0.23, 0.37)	0.04 (0.05) (-0.03, 0.12)	0.59 (0.50, 0.96)	0.41 (0.04, 0.50)	1.42 (1.00, 26.63)
N = 50, T = 75	no	21930	0.18 (0.06) (0.07, 0.28)	0.11 (0.07) (-0.02, 0.23)	0.28 (0.23, 0.50)	0.72 (0.50, 0.77)	2.56 (1.00, 3.31)
N = 50, T = 75	yes	3070	0.28 (0.05) (0.21, 0.36)	0.04 (0.06) (-0.03, 0.14)	0.62 (0.50, 1.00)	0.38 (0.00, 0.50)	1.62 (1.00, 537.70)
N = 50, T = 100	no	21148	0.18 (0.07) (0.07, 0.28)	0.11 (0.08) (-0.03, 0.23)	0.28 (0.23, 0.50)	0.72 (0.50, 0.77)	2.58 (1.00, 3.36)
N = 50, T = 100	yes	3852	0.27 (0.06) (0.20, 0.36)	0.05 (0.06) (-0.04, 0.15)	0.65 (0.50, 1.00)	0.35 (0.00, 0.50)	1.88 (1.00, 1537.52)
N = 75, T = 25	no	36676	0.19 (0.06) (0.10, 0.28)	0.10 (0.06) (-0.00, 0.20)	0.28 (0.24, 0.50)	0.72 (0.50, 0.76)	2.59 (1.00, 3.14)
N = 75, T = 25	yes	824	0.31 (0.04) (0.25, 0.39)	0.04 (0.05) (-0.02, 0.11)	0.56 (0.50, 0.96)	0.44 (0.04, 0.50)	1.26 (1.00, 21.56)
N = 75, T = 50	no	34828	0.19 (0.06) (0.09, 0.27)	0.11 (0.07) (-0.01, 0.21)	0.28 (0.24, 0.50)	0.72 (0.50, 0.76)	2.56 (1.00, 3.23)
N = 75, T = 50	yes	2672	0.28 (0.05) (0.22, 0.36)	0.04 (0.05) (-0.03, 0.12)	0.59 (0.50, 0.98)	0.41 (0.02, 0.50)	1.42 (1.00, 51.57)
N = 75, T = 75	no	33076	0.18 (0.06) (0.07, 0.28)	0.11 (0.07) (-0.01, 0.23)	0.28 (0.23, 0.50)	0.72 (0.50, 0.77)	2.58 (1.00, 3.30)
N = 75, T = 75	yes	4424	0.27 (0.05) (0.21, 0.35)	0.04 (0.05) (-0.03, 0.13)	0.61 (0.50, 1.00)	0.39 (0.00, 0.50)	1.58 (1.00, 243.21)
N = 75, T = 100	no	31555	0.18 (0.06) (0.07, 0.28)	0.11 (0.08) (-0.02, 0.23)	0.28 (0.23, 0.50)	0.72 (0.50, 0.77)	2.57 (1.00, 3.40)
N = 75, T = 100	yes	5945	0.27 (0.06) (0.20, 0.35)	0.05 (0.06) (-0.04, 0.14)	0.65 (0.50, 1.00)	0.35 (0.00, 0.50)	1.84 (1.00, 4912.01)
N = 100, T = 25	no	48854	0.19 (0.05) (0.10, 0.27)	0.10 (0.06) (0.01, 0.20)	0.28 (0.24, 0.50)	0.72 (0.50, 0.76)	2.58 (1.00, 3.11)
N = 100, T = 25	yes	1146	0.30 (0.04) (0.24, 0.38)	0.04 (0.05) (-0.02, 0.10)	0.56 (0.50, 0.97)	0.44 (0.03, 0.50)	1.28 (1.00, 33.79)
N = 100, T = 50	no	46428	0.19 (0.06) (0.09, 0.27)	0.11 (0.07) (-0.01, 0.21)	0.28 (0.24, 0.50)	0.72 (0.50, 0.76)	2.57 (1.00, 3.23)
N = 100, T = 50	yes	3572	0.28 (0.04) (0.22, 0.35)	0.04 (0.05) (-0.03, 0.12)	0.58 (0.50, 0.99)	0.42 (0.01, 0.50)	1.40 (1.00, 124.28)
N = 100, T = 75	no	43936	0.18 (0.06) (0.08, 0.28)	0.11 (0.07) (-0.01, 0.22)	0.28 (0.23, 0.50)	0.72 (0.50, 0.77)	2.56 (1.00, 3.40)
N = 100, T = 75	yes	6064	0.27 (0.05) (0.21, 0.35)	0.04 (0.05) (-0.03, 0.12)	0.62 (0.50, 1.00)	0.38 (0.00, 0.50)	1.61 (1.00, 518.00)
N = 100, T = 100	no	42193	0.18 (0.06) (0.07, 0.28)	0.11 (0.08) (-0.02, 0.23)	0.28 (0.23, 0.50)	0.72 (0.50, 0.77)	2.59 (1.00, 3.39)
N = 100, T = 100	yes	7807	0.27 (0.05) (0.20, 0.35)	0.04 (0.06) (-0.04, 0.14)	0.64 (0.50, 1.00)	0.36 (0.00, 0.50)	1.80 (1.00, 1.50e+04)
N = 150, T = 25	no	73504	0.19 (0.05) (0.11, 0.27)	0.10 (0.06) (0.01, 0.19)	0.28 (0.24, 0.50)	0.72 (0.50, 0.76)	2.58 (1.00, 3.22)
N = 150, T = 25	yes	1496	0.29 (0.04) (0.24, 0.37)	0.04 (0.04) (-0.02, 0.11)	0.55 (0.50, 0.91)	0.45 (0.09, 0.50)	1.23 (1.00, 10.11)
N = 150, T = 50	no	69499	0.19 (0.05) (0.09, 0.27)	0.11 (0.06) (0.00, 0.21)	0.28 (0.24, 0.50)	0.72 (0.50, 0.76)	2.56 (1.00, 3.25)
N = 150, T = 50	yes	5501	0.27 (0.04) (0.22, 0.35)	0.04 (0.05) (-0.03, 0.11)	0.58 (0.50, 0.99)	0.42 (0.01, 0.50)	1.40 (1.00, 109.52)
N = 150, T = 75	no	66106	0.18 (0.06) (0.08, 0.27)	0.11 (0.07) (-0.01, 0.22)	0.28 (0.23, 0.50)	0.72 (0.50, 0.77)	2.57 (1.00, 3.34)
N = 150, T = 75	yes	8894	0.27 (0.05) (0.21, 0.35)	0.04 (0.05) (-0.04, 0.13)	0.62 (0.50, 1.00)	0.38 (0.00, 0.50)	1.61 (1.00, 822.77)
N = 150, T = 100	no	63365	0.18 (0.06) (0.07, 0.28)	0.11 (0.07) (-0.02, 0.23)	0.28 (0.23, 0.50)	0.72 (0.50, 0.77)	2.58 (1.00, 3.38)
N = 150, T = 100	yes	11635	0.27 (0.05) (0.20, 0.35)	0.04 (0.06) (-0.04, 0.14)	0.64 (0.50, 1.00)	0.36 (0.00, 0.50)	1.81 (1.00, 2.44e+04)

Table C4: Complete Statistical Results - Pooled Data for Set 4 H_{a2c}

Condition	Support H_{a2c}	N_{pooled}	ϕ_{12} Mean (SD) (min, max)	ϕ_{21} Mean (SD) (min, max)	w_{Ha2c} Median (min, max)	w_{Ha2} Median (min, max)	ratio ww' Median (min, max)
N = 50, T = 25	no	23049	0.18 (0.06) (0.08, 0.27)	0.11 (0.07) (-0.01, 0.22)	0.30 (0.27, 0.50)	0.70 (0.50, 0.73)	2.34 (1.00, 2.73)
N = 50, T = 25	yes	1951	0.28 (0.05) (0.22, 0.37)	0.05 (0.05) (-0.02, 0.13)	0.57 (0.50, 0.99)	0.43 (0.01, 0.50)	1.34 (1.00, 74.54)
N = 50, T = 50	no	20523	0.18 (0.06) (0.08, 0.27)	0.11 (0.07) (-0.01, 0.22)	0.31 (0.27, 0.50)	0.69 (0.50, 0.73)	2.24 (1.00, 2.74)
N = 50, T = 50	yes	4477	0.26 (0.05) (0.20, 0.35)	0.05 (0.05) (-0.03, 0.14)	0.61 (0.50, 0.99)	0.39 (0.01, 0.50)	1.59 (1.00, 89.73)
N = 50, T = 75	no	18645	0.17 (0.06) (0.07, 0.27)	0.12 (0.07) (-0.02, 0.23)	0.31 (0.27, 0.50)	0.69 (0.50, 0.73)	2.24 (1.00, 2.74)
N = 50, T = 75	yes	6355	0.25 (0.06) (0.18, 0.34)	0.06 (0.06) (-0.03, 0.15)	0.65 (0.50, 1.00)	0.35 (0.00, 0.50)	1.87 (1.00, 3717.67)
N = 50, T = 100	no	17701	0.17 (0.06) (0.06, 0.27)	0.12 (0.08) (-0.02, 0.24)	0.31 (0.27, 0.50)	0.69 (0.50, 0.73)	2.25 (1.00, 2.74)
N = 50, T = 100	yes	7299	0.25 (0.06) (0.17, 0.35)	0.06 (0.07) (-0.04, 0.18)	0.69 (0.50, 1.00)	0.31 (0.00, 0.50)	2.17 (1.00, 1.11e+04)
N = 75, T = 25	no	34662	0.19 (0.05) (0.09, 0.27)	0.11 (0.06) (-0.00, 0.21)	0.30 (0.27, 0.50)	0.70 (0.50, 0.73)	2.29 (1.00, 2.73)
N = 75, T = 25	yes	2838	0.27 (0.05) (0.21, 0.35)	0.05 (0.05) (-0.02, 0.12)	0.57 (0.50, 0.99)	0.43 (0.01, 0.50)	1.31 (1.00, 68.86)
N = 75, T = 50	no	30814	0.18 (0.06) (0.08, 0.26)	0.11 (0.07) (0.00, 0.22)	0.31 (0.27, 0.50)	0.69 (0.50, 0.73)	2.24 (1.00, 2.73)
N = 75, T = 50	yes	6686	0.26 (0.05) (0.19, 0.34)	0.05 (0.05) (-0.03, 0.14)	0.61 (0.50, 0.99)	0.39 (0.01, 0.50)	1.56 (1.00, 182.25)
N = 75, T = 75	no	28303	0.17 (0.06) (0.07, 0.27)	0.12 (0.07) (-0.00, 0.23)	0.31 (0.27, 0.50)	0.69 (0.50, 0.73)	2.26 (1.00, 2.74)
N = 75, T = 75	yes	9197	0.25 (0.05) (0.18, 0.34)	0.05 (0.06) (-0.03, 0.15)	0.65 (0.50, 1.00)	0.35 (0.00, 0.50)	1.87 (1.00, 1400.53)
N = 75, T = 100	no	26221	0.17 (0.06) (0.07, 0.27)	0.12 (0.07) (-0.01, 0.23)	0.31 (0.27, 0.50)	0.69 (0.50, 0.73)	2.25 (1.00, 2.74)
N = 75, T = 100	yes	11279	0.25 (0.06) (0.17, 0.34)	0.06 (0.07) (-0.04, 0.17)	0.69 (0.50, 1.00)	0.31 (0.00, 0.50)	2.19 (1.00, 4.65e+04)
N = 100, T = 25	no	45943	0.19 (0.05) (0.10, 0.26)	0.11 (0.06) (0.01, 0.20)	0.31 (0.27, 0.50)	0.69 (0.50, 0.73)	2.26 (1.00, 2.73)
N = 100, T = 25	yes	4057	0.27 (0.04) (0.21, 0.35)	0.05 (0.05) (-0.02, 0.12)	0.57 (0.50, 0.99)	0.43 (0.01, 0.50)	1.34 (1.00, 99.20)
N = 100, T = 50	no	41105	0.18 (0.05) (0.09, 0.26)	0.11 (0.06) (0.01, 0.21)	0.31 (0.27, 0.50)	0.69 (0.50, 0.73)	2.23 (1.00, 2.74)
N = 100, T = 50	yes	8895	0.25 (0.05) (0.19, 0.33)	0.05 (0.05) (-0.03, 0.13)	0.62 (0.50, 1.00)	0.38 (0.00, 0.50)	1.60 (1.00, 586.44)
N = 100, T = 75	no	37396	0.18 (0.06) (0.08, 0.27)	0.12 (0.07) (-0.00, 0.23)	0.31 (0.27, 0.50)	0.69 (0.50, 0.73)	2.24 (1.00, 2.74)
N = 100, T = 75	yes	12604	0.25 (0.05) (0.18, 0.33)	0.05 (0.06) (-0.03, 0.14)	0.65 (0.50, 1.00)	0.35 (0.00, 0.50)	1.88 (1.00, 3183.32)
N = 100, T = 100	no	35273	0.17 (0.06) (0.07, 0.27)	0.12 (0.07) (-0.01, 0.23)	0.31 (0.27, 0.50)	0.69 (0.50, 0.73)	2.26 (1.00, 2.74)
N = 100, T = 100	yes	14727	0.25 (0.06) (0.17, 0.34)	0.06 (0.07) (-0.04, 0.17)	0.69 (0.50, 1.00)	0.31 (0.00, 0.50)	2.20 (1.00, 1.77e+05)
N = 150, T = 25	no	69140	0.19 (0.05) (0.11, 0.26)	0.11 (0.05) (0.02, 0.20)	0.31 (0.27, 0.50)	0.69 (0.50, 0.73)	2.24 (1.00, 2.73)
N = 150, T = 25	yes	5860	0.26 (0.04) (0.21, 0.33)	0.05 (0.05) (-0.02, 0.12)	0.56 (0.50, 0.97)	0.44 (0.03, 0.50)	1.30 (1.00, 28.15)
N = 150, T = 50	no	61175	0.18 (0.05) (0.09, 0.26)	0.11 (0.06) (0.01, 0.21)	0.31 (0.27, 0.50)	0.69 (0.50, 0.73)	2.23 (1.00, 2.74)
N = 150, T = 50	yes	13825	0.25 (0.04) (0.19, 0.33)	0.05 (0.05) (-0.03, 0.13)	0.61 (0.50, 1.00)	0.39 (0.00, 0.50)	1.59 (1.00, 463.64)
N = 150, T = 75	no	56394	0.17 (0.06) (0.08, 0.26)	0.12 (0.07) (0.00, 0.22)	0.31 (0.27, 0.50)	0.69 (0.50, 0.73)	2.25 (1.00, 2.74)
N = 150, T = 75	yes	18606	0.25 (0.05) (0.18, 0.33)	0.05 (0.06) (-0.03, 0.15)	0.65 (0.50, 1.00)	0.35 (0.00, 0.50)	1.87 (1.00, 5784.67)
N = 150, T = 100	no	52673	0.17 (0.06) (0.07, 0.27)	0.12 (0.07) (-0.01, 0.23)	0.31 (0.27, 0.50)	0.69 (0.50, 0.73)	2.25 (1.00, 2.74)
N = 150, T = 100	yes	22327	0.24 (0.06) (0.17, 0.33)	0.06 (0.07) (-0.04, 0.17)	0.68 (0.50, 1.00)	0.32 (0.00, 0.50)	2.16 (1.00, 2.42e+05)

C2 $\phi_{12} = 0.20, \phi_{21} = 0.15$

Table C5: Complete Statistical Results - Pooled Data for Set 1 H_1

			ϕ_{12}		ϕ_{21}		w_{H1}		w_{H1c}		ratio ww'	
Condition	Support H_1	N_{pooled}	Mean (SD)	(min, max)	Mean (SD)	(min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	7642	0.14 (0.06)	(0.03, 0.24)	0.20 (0.06)	(0.12, 0.30)	0.49	(0.03, 0.50)	0.51	(0.50, 0.97)	1.06	(1.00, 31.76)
N = 50, T = 25	yes	17358	0.22 (0.05)	(0.13, 0.31)	0.13 (0.06)	(0.02, 0.22)	0.54	(0.50, 0.98)	0.46	(0.02, 0.50)	1.18	(1.00, 60.79)
N = 50, T = 50	no	7650	0.14 (0.06)	(0.04, 0.23)	0.20 (0.06)	(0.12, 0.30)	0.48	(0.02, 0.50)	0.52	(0.50, 0.98)	1.09	(1.00, 56.81)
N = 50, T = 50	yes	17350	0.22 (0.05)	(0.13, 0.31)	0.13 (0.06)	(0.02, 0.22)	0.56	(0.50, 1.00)	0.44	(0.00, 0.50)	1.29	(1.00, 428.11)
N = 50, T = 75	no	7732	0.14 (0.06)	(0.04, 0.24)	0.20 (0.06)	(0.11, 0.31)	0.47	(0.00, 0.50)	0.53	(0.50, 1.00)	1.12	(1.00, 291.83)
N = 50, T = 75	yes	17268	0.22 (0.06)	(0.13, 0.32)	0.12 (0.06)	(0.01, 0.22)	0.59	(0.50, 1.00)	0.41	(0.00, 0.50)	1.42	(1.00, 8333.23)
N = 50, T = 100	no	8177	0.14 (0.07)	(0.03, 0.24)	0.20 (0.06)	(0.11, 0.31)	0.46	(0.00, 0.50)	0.54	(0.50, 1.00)	1.18	(1.00, 2554.32)
N = 50, T = 100	yes	16823	0.22 (0.06)	(0.12, 0.33)	0.12 (0.07)	(0.01, 0.23)	0.61	(0.50, 1.00)	0.39	(0.00, 0.50)	1.56	(1.00, 2.84e+05)
N = 75, T = 25	no	10420	0.15 (0.06)	(0.05, 0.23)	0.20 (0.05)	(0.12, 0.29)	0.49	(0.08, 0.50)	0.51	(0.50, 0.92)	1.05	(1.00, 10.95)
N = 75, T = 25	yes	27080	0.21 (0.05)	(0.14, 0.30)	0.13 (0.05)	(0.04, 0.21)	0.54	(0.50, 0.98)	0.46	(0.02, 0.50)	1.18	(1.00, 56.52)
N = 75, T = 50	no	11039	0.15 (0.06)	(0.04, 0.23)	0.20 (0.06)	(0.12, 0.30)	0.48	(0.02, 0.50)	0.52	(0.50, 0.98)	1.08	(1.00, 39.17)
N = 75, T = 50	yes	26461	0.22 (0.05)	(0.14, 0.31)	0.13 (0.06)	(0.03, 0.22)	0.56	(0.50, 1.00)	0.44	(0.00, 0.50)	1.29	(1.00, 255.23)
N = 75, T = 75	no	11740	0.14 (0.06)	(0.04, 0.24)	0.20 (0.06)	(0.12, 0.30)	0.47	(0.00, 0.50)	0.53	(0.50, 1.00)	1.13	(1.00, 213.91)
N = 75, T = 75	yes	25760	0.22 (0.06)	(0.13, 0.31)	0.13 (0.06)	(0.02, 0.22)	0.59	(0.50, 1.00)	0.41	(0.00, 0.50)	1.42	(1.00, 5.49e+04)
N = 75, T = 100	no	11714	0.14 (0.06)	(0.03, 0.24)	0.21 (0.06)	(0.11, 0.30)	0.46	(0.00, 0.50)	0.54	(0.50, 1.00)	1.17	(1.00, 1538.06)
N = 75, T = 100	yes	25786	0.22 (0.06)	(0.13, 0.32)	0.12 (0.07)	(0.01, 0.23)	0.61	(0.50, 1.00)	0.39	(0.00, 0.50)	1.56	(1.00, 2.16e+04)
N = 100, T = 25	no	13777	0.15 (0.05)	(0.06, 0.23)	0.20 (0.05)	(0.13, 0.29)	0.49	(0.03, 0.50)	0.51	(0.50, 0.97)	1.04	(1.00, 33.57)
N = 100, T = 25	yes	36223	0.21 (0.05)	(0.14, 0.29)	0.14 (0.05)	(0.04, 0.21)	0.54	(0.50, 0.99)	0.46	(0.01, 0.50)	1.17	(1.00, 186.57)
N = 100, T = 50	no	14615	0.15 (0.05)	(0.05, 0.23)	0.20 (0.05)	(0.12, 0.29)	0.48	(0.00, 0.50)	0.52	(0.50, 1.00)	1.08	(1.00, 8232.01)
N = 100, T = 50	yes	35385	0.21 (0.05)	(0.14, 0.30)	0.13 (0.06)	(0.03, 0.22)	0.56	(0.50, 1.00)	0.44	(0.00, 0.50)	1.29	(1.00, 430.27)
N = 100, T = 75	no	15498	0.14 (0.06)	(0.04, 0.24)	0.20 (0.06)	(0.12, 0.30)	0.47	(0.00, 0.50)	0.53	(0.50, 1.00)	1.13	(1.00, 435.08)
N = 100, T = 75	yes	34502	0.22 (0.06)	(0.13, 0.31)	0.13 (0.06)	(0.02, 0.22)	0.59	(0.50, 1.00)	0.41	(0.00, 0.50)	1.42	(1.00, 2.22e+05)
N = 100, T = 100	no	16291	0.14 (0.06)	(0.03, 0.24)	0.20 (0.06)	(0.11, 0.31)	0.46	(0.00, 0.50)	0.54	(0.50, 1.00)	1.18	(1.00, 7347.62)
N = 100, T = 100	yes	33709	0.22 (0.06)	(0.13, 0.32)	0.12 (0.07)	(0.01, 0.23)	0.61	(0.50, 1.00)	0.39	(0.00, 0.50)	1.55	(1.00, 3.64e+04)
N = 150, T = 25	no	18610	0.15 (0.05)	(0.07, 0.22)	0.20 (0.05)	(0.13, 0.28)	0.49	(0.05, 0.50)	0.51	(0.50, 0.95)	1.04	(1.00, 19.52)
N = 150, T = 25	yes	56390	0.21 (0.04)	(0.15, 0.28)	0.14 (0.05)	(0.05, 0.21)	0.54	(0.50, 0.99)	0.46	(0.01, 0.50)	1.17	(1.00, 167.67)
N = 150, T = 50	no	21094	0.15 (0.05)	(0.06, 0.23)	0.20 (0.05)	(0.12, 0.29)	0.48	(0.01, 0.50)	0.52	(0.50, 0.99)	1.08	(1.00, 101.22)
N = 150, T = 50	yes	53906	0.21 (0.05)	(0.14, 0.30)	0.13 (0.06)	(0.03, 0.22)	0.56	(0.50, 1.00)	0.44	(0.00, 0.50)	1.28	(1.00, 1182.35)
N = 150, T = 75	no	22856	0.14 (0.06)	(0.04, 0.24)	0.20 (0.06)	(0.12, 0.30)	0.47	(0.00, 0.50)	0.53	(0.50, 1.00)	1.12	(1.00, 765.77)
N = 150, T = 75	yes	52144	0.22 (0.06)	(0.13, 0.31)	0.13 (0.06)	(0.02, 0.23)	0.58	(0.50, 1.00)	0.42	(0.00, 0.50)	1.41	(1.00, 3534.95)
N = 150, T = 100	no	24033	0.14 (0.06)	(0.04, 0.24)	0.20 (0.06)	(0.11, 0.30)	0.46	(0.00, 0.50)	0.54	(0.50, 1.00)	1.17	(1.00, 3077.88)
N = 150, T = 100	yes	50967	0.22 (0.06)	(0.13, 0.32)	0.12 (0.07)	(0.01, 0.23)	0.61	(0.50, 1.00)	0.39	(0.00, 0.50)	1.54	(1.00, 2.87e+04)

Table C6: Complete Statistical Results - Pooled Data for Set 2 H_1

			ϕ_{12}		ϕ_{21}		w_{H1}		w_{H1c}		ratio ww'	
Condition	Support H_1	N_{pooled}	Mean (SD)	(min, max)	Mean (SD)	(min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	21449	0.18 (0.06)	(0.08, 0.27)	0.16 (0.07)	(0.06, 0.27)	0.28	(0.03, 0.38)	0.44	(0.05, 0.45)	1.61	(1.00, 1.65)
N = 50, T = 25	yes	3551	0.27 (0.05)	(0.19, 0.36)	0.08 (0.06)	(-0.01, 0.17)	0.45	(0.38, 0.96)	0.34	(0.03, 0.38)	1.32	(1.00, 36.87)
N = 50, T = 50	no	19445	0.18 (0.06)	(0.07, 0.27)	0.17 (0.06)	(0.07, 0.27)	0.28	(0.02, 0.38)	0.44	(0.03, 0.45)	1.62	(1.00, 1.65)
N = 50, T = 50	yes	5555	0.25 (0.05)	(0.18, 0.35)	0.09 (0.06)	(-0.01, 0.18)	0.49	(0.38, 0.99)	0.32	(0.00, 0.38)	1.52	(1.00, 259.66)
N = 50, T = 75	no	17948	0.17 (0.06)	(0.07, 0.27)	0.17 (0.07)	(0.07, 0.28)	0.28	(0.00, 0.38)	0.44	(0.01, 0.45)	1.63	(1.00, 1.65)
N = 50, T = 75	yes	7052	0.25 (0.05)	(0.17, 0.34)	0.09 (0.06)	(-0.01, 0.19)	0.52	(0.38, 1.00)	0.30	(0.00, 0.38)	1.75	(1.00, 5054.36)
N = 50, T = 100	no	17102	0.17 (0.07)	(0.05, 0.27)	0.18 (0.07)	(0.07, 0.29)	0.27	(0.00, 0.38)	0.43	(0.00, 0.45)	1.65	(1.00, 1.65)
N = 50, T = 100	yes	7898	0.25 (0.06)	(0.16, 0.35)	0.09 (0.06)	(-0.01, 0.20)	0.55	(0.38, 1.00)	0.28	(0.00, 0.38)	2.00	(1.00, 1.72e+05)
N = 75, T = 25	no	32323	0.19 (0.05)	(0.09, 0.27)	0.16 (0.06)	(0.08, 0.25)	0.28	(0.07, 0.38)	0.44	(0.12, 0.45)	1.60	(1.00, 1.65)
N = 75, T = 25	yes	5177	0.26 (0.05)	(0.19, 0.35)	0.09 (0.05)	(-0.00, 0.18)	0.45	(0.38, 0.96)	0.35	(0.03, 0.38)	1.29	(1.00, 34.28)
N = 75, T = 50	no	29015	0.18 (0.06)	(0.08, 0.27)	0.17 (0.06)	(0.08, 0.27)	0.28	(0.02, 0.38)	0.44	(0.04, 0.45)	1.61	(1.00, 1.65)
N = 75, T = 50	yes	8485	0.25 (0.05)	(0.18, 0.34)	0.09 (0.06)	(-0.00, 0.18)	0.49	(0.38, 0.99)	0.32	(0.01, 0.38)	1.54	(1.00, 154.81)
N = 75, T = 75	no	27023	0.17 (0.06)	(0.07, 0.27)	0.17 (0.06)	(0.08, 0.28)	0.28	(0.00, 0.38)	0.44	(0.01, 0.45)	1.64	(1.00, 1.65)
N = 75, T = 75	yes	10477	0.25 (0.05)	(0.17, 0.34)	0.09 (0.06)	(-0.01, 0.18)	0.52	(0.38, 1.00)	0.30	(0.00, 0.38)	1.74	(1.00, 3.33e+04)
N = 75, T = 100	no	25335	0.17 (0.06)	(0.06, 0.27)	0.18 (0.07)	(0.07, 0.28)	0.27	(0.00, 0.38)	0.43	(0.00, 0.45)	1.64	(1.00, 1.65)
N = 75, T = 100	yes	12165	0.25 (0.05)	(0.16, 0.34)	0.10 (0.06)	(-0.01, 0.20)	0.56	(0.38, 1.00)	0.28	(0.00, 0.38)	2.01	(1.00, 1.31e+04)
N = 100, T = 25	no	43338	0.19 (0.05)	(0.10, 0.26)	0.16 (0.05)	(0.08, 0.25)	0.28	(0.03, 0.38)	0.44	(0.05, 0.45)	1.60	(1.00, 1.65)
N = 100, T = 25	yes	6662	0.26 (0.04)	(0.19, 0.34)	0.09 (0.05)	(-0.00, 0.17)	0.45	(0.38, 0.99)	0.34	(0.01, 0.38)	1.30	(1.00, 113.16)
N = 100, T = 50	no	38912	0.18 (0.05)	(0.08, 0.26)	0.17 (0.06)	(0.08, 0.26)	0.28	(0.00, 0.38)	0.44	(0.00, 0.45)	1.62	(1.00, 1.65)
N = 100, T = 50	yes	11088	0.25 (0.05)	(0.18, 0.33)	0.09 (0.05)	(-0.00, 0.18)	0.48	(0.38, 0.99)	0.32	(0.00, 0.38)	1.48	(1.00, 260.97)
N = 100, T = 75	no	35989	0.17 (0.06)	(0.07, 0.27)	0.17 (0.06)	(0.07, 0.28)	0.28	(0.00, 0.38)	0.44	(0.00, 0.45)	1.64	(1.00, 1.65)
N = 100, T = 75	yes	14011	0.25 (0.05)	(0.17, 0.33)	0.09 (0.06)	(-0.01, 0.19)	0.52	(0.38, 1.00)	0.30	(0.00, 0.38)	1.73	(1.00, 1.34e+05)
N = 100, T = 100	no	34228	0.17 (0.06)	(0.06, 0.27)	0.18 (0.07)	(0.07, 0.28)	0.27	(0.00, 0.38)	0.43	(0.00, 0.45)	1.65	(1.00, 1.65)
N = 100, T = 100	yes	15772	0.25 (0.05)	(0.16, 0.34)	0.10 (0.06)	(-0.01, 0.19)	0.55	(0.38, 1.00)	0.28	(0.00, 0.38)	2.00	(1.00, 2.21e+04)
N = 150, T = 25	no	65111	0.19 (0.05)	(0.11, 0.26)	0.16 (0.05)	(0.09, 0.24)	0.28	(0.05, 0.38)	0.44	(0.07, 0.45)	1.58	(1.00, 1.65)
N = 150, T = 25	yes	9889	0.25 (0.04)	(0.19, 0.32)	0.09 (0.05)	(0.01, 0.17)	0.44	(0.38, 0.98)	0.35	(0.01, 0.38)	1.26	(1.00, 101.70)
N = 150, T = 50	no	58036	0.18 (0.05)	(0.09, 0.26)	0.17 (0.05)	(0.08, 0.26)	0.28	(0.01, 0.38)	0.44	(0.02, 0.45)	1.61	(1.00, 1.65)
N = 150, T = 50	yes	16964	0.25 (0.04)	(0.18, 0.32)	0.09 (0.05)	(0.00, 0.18)	0.48	(0.38, 1.00)	0.32	(0.00, 0.38)	1.50	(1.00, 717.13)
N = 150, T = 75	no	53978	0.18 (0.06)	(0.07, 0.27)	0.17 (0.06)	(0.08, 0.27)	0.28	(0.00, 0.38)	0.44	(0.00, 0.45)	1.63	(1.00, 1.65)
N = 150, T = 75	yes	21022	0.25 (0.05)	(0.17, 0.33)	0.09 (0.06)	(-0.00, 0.19)	0.52	(0.38, 1.00)	0.30	(0.00, 0.38)	1.72	(1.00, 2144.06)
N = 150, T = 100	no	51270	0.17 (0.06)	(0.06, 0.27)	0.18 (0.06)	(0.08, 0.28)	0.27	(0.00, 0.38)	0.43	(0.00, 0.45)	1.65	(1.00, 1.65)
N = 150, T = 100	yes	23730	0.25 (0.05)	(0.16, 0.34)	0.09 (0.06)	(-0.01, 0.19)	0.56	(0.38, 1.00)	0.28	(0.00, 0.38)	2.02	(1.00, 1.74e+04)

Table C7: Complete Statistical Results - Pooled Data for Set 3 H_{a1} (Alternative Analysis)

Condition	Support H_{a1}	N_{pooled}	ϕ_{12} Mean (SD) (min, max)	ϕ_{21} Mean (SD) (min, max)	w_{Ha1} Median (min, max)	w_{Ha1c} Median (min, max)	ratio ww' Median (min, max)
N = 50, T = 25	no	247	0.31 (0.10) (0.05, 0.43)	0.08 (0.11) (-0.01, 0.35)	0.43 (0.11, 0.50)	0.57 (0.50, 0.89)	1.31 (1.00, 7.96)
N = 50, T = 25	yes	24753	0.19 (0.06) (0.08, 0.30)	0.15 (0.07) (0.04, 0.26)	0.73 (0.50, 0.75)	0.27 (0.25, 0.50)	2.70 (1.00, 3.08)
N = 50, T = 50	no	770	0.29 (0.08) (0.10, 0.39)	0.08 (0.09) (-0.02, 0.30)	0.41 (0.03, 0.50)	0.59 (0.50, 0.97)	1.42 (1.00, 35.11)
N = 50, T = 50	yes	24230	0.19 (0.06) (0.08, 0.29)	0.15 (0.07) (0.04, 0.26)	0.73 (0.50, 0.78)	0.27 (0.22, 0.50)	2.70 (1.00, 3.52)
N = 50, T = 75	no	1526	0.27 (0.08) (0.08, 0.37)	0.08 (0.09) (-0.02, 0.31)	0.40 (0.00, 0.50)	0.60 (0.50, 1.00)	1.51 (1.00, 437.94)
N = 50, T = 75	yes	23474	0.19 (0.07) (0.08, 0.29)	0.15 (0.07) (0.04, 0.27)	0.73 (0.50, 0.77)	0.27 (0.23, 0.50)	2.69 (1.00, 3.36)
N = 50, T = 100	no	2288	0.26 (0.09) (0.05, 0.37)	0.09 (0.10) (-0.02, 0.30)	0.37 (0.00, 0.50)	0.63 (0.50, 1.00)	1.68 (1.00, 6173.91)
N = 50, T = 100	yes	22712	0.19 (0.07) (0.07, 0.30)	0.16 (0.07) (0.04, 0.27)	0.73 (0.50, 0.78)	0.27 (0.22, 0.50)	2.68 (1.00, 3.45)
N = 75, T = 25	no	254	0.31 (0.08) (0.23, 0.41)	0.07 (0.08) (-0.01, 0.23)	0.45 (0.12, 0.50)	0.55 (0.50, 0.88)	1.24 (1.00, 7.65)
N = 75, T = 25	yes	37246	0.19 (0.06) (0.10, 0.29)	0.15 (0.06) (0.05, 0.25)	0.73 (0.50, 0.76)	0.27 (0.24, 0.50)	2.71 (1.00, 3.18)
N = 75, T = 50	no	1133	0.29 (0.07) (0.13, 0.38)	0.08 (0.08) (-0.01, 0.27)	0.42 (0.05, 0.50)	0.58 (0.50, 0.95)	1.37 (1.00, 20.71)
N = 75, T = 50	yes	36367	0.19 (0.06) (0.09, 0.29)	0.15 (0.06) (0.05, 0.26)	0.73 (0.50, 0.77)	0.27 (0.23, 0.50)	2.70 (1.00, 3.35)
N = 75, T = 75	no	2208	0.26 (0.08) (0.06, 0.37)	0.09 (0.09) (-0.02, 0.30)	0.40 (0.00, 0.50)	0.60 (0.50, 1.00)	1.50 (1.00, 1652.06)
N = 75, T = 75	yes	35292	0.19 (0.06) (0.08, 0.29)	0.15 (0.07) (0.04, 0.27)	0.73 (0.50, 0.77)	0.27 (0.23, 0.50)	2.69 (1.00, 3.33)
N = 75, T = 100	no	3421	0.26 (0.09) (0.05, 0.37)	0.09 (0.09) (-0.02, 0.29)	0.37 (0.00, 0.50)	0.63 (0.50, 1.00)	1.70 (1.00, 656.18)
N = 75, T = 100	yes	34079	0.19 (0.07) (0.08, 0.29)	0.16 (0.07) (0.04, 0.27)	0.73 (0.50, 0.78)	0.27 (0.22, 0.50)	2.68 (1.00, 3.49)
N = 100, T = 25	no	344	0.31 (0.07) (0.23, 0.40)	0.07 (0.08) (-0.01, 0.20)	0.45 (0.05, 0.50)	0.55 (0.50, 0.95)	1.24 (1.00, 17.28)
N = 100, T = 25	yes	49656	0.20 (0.05) (0.10, 0.28)	0.15 (0.06) (0.06, 0.25)	0.73 (0.50, 0.76)	0.27 (0.24, 0.50)	2.71 (1.00, 3.25)
N = 100, T = 50	no	1344	0.28 (0.07) (0.09, 0.37)	0.08 (0.09) (-0.02, 0.28)	0.42 (0.00, 0.50)	0.58 (0.50, 1.00)	1.38 (1.00, 431.63)
N = 100, T = 50	yes	48656	0.19 (0.06) (0.09, 0.28)	0.15 (0.06) (0.05, 0.25)	0.73 (0.50, 0.77)	0.27 (0.23, 0.50)	2.70 (1.00, 3.41)
N = 100, T = 75	no	2989	0.26 (0.08) (0.06, 0.36)	0.08 (0.09) (-0.02, 0.29)	0.39 (0.00, 0.50)	0.61 (0.50, 1.00)	1.54 (1.00, 5656.71)
N = 100, T = 75	yes	47011	0.19 (0.06) (0.08, 0.29)	0.15 (0.07) (0.04, 0.26)	0.73 (0.50, 0.77)	0.27 (0.23, 0.50)	2.69 (1.00, 3.32)
N = 100, T = 100	no	4344	0.26 (0.09) (0.05, 0.36)	0.09 (0.09) (-0.02, 0.29)	0.37 (0.00, 0.50)	0.63 (0.50, 1.00)	1.69 (1.00, 1082.83)
N = 100, T = 100	yes	45656	0.19 (0.07) (0.07, 0.29)	0.16 (0.07) (0.04, 0.27)	0.73 (0.50, 0.77)	0.27 (0.23, 0.50)	2.68 (1.00, 3.42)
N = 150, T = 25	no	402	0.31 (0.05) (0.24, 0.39)	0.06 (0.07) (-0.02, 0.16)	0.45 (0.05, 0.50)	0.55 (0.50, 0.95)	1.23 (1.00, 19.62)
N = 150, T = 25	yes	74598	0.20 (0.05) (0.11, 0.27)	0.15 (0.05) (0.06, 0.24)	0.73 (0.50, 0.77)	0.27 (0.23, 0.50)	2.71 (1.00, 3.26)
N = 150, T = 50	no	2178	0.28 (0.07) (0.13, 0.36)	0.07 (0.07) (-0.02, 0.25)	0.42 (0.01, 0.50)	0.58 (0.50, 0.99)	1.35 (1.00, 66.10)
N = 150, T = 50	yes	72822	0.19 (0.06) (0.10, 0.28)	0.15 (0.06) (0.05, 0.25)	0.73 (0.50, 0.77)	0.27 (0.23, 0.50)	2.70 (1.00, 3.32)
N = 150, T = 75	no	4363	0.27 (0.08) (0.07, 0.36)	0.08 (0.08) (-0.02, 0.27)	0.40 (0.01, 0.50)	0.60 (0.50, 0.99)	1.51 (1.00, 184.56)
N = 150, T = 75	yes	70637	0.19 (0.06) (0.09, 0.29)	0.15 (0.07) (0.05, 0.26)	0.73 (0.50, 0.77)	0.27 (0.23, 0.50)	2.69 (1.00, 3.33)
N = 150, T = 100	no	6660	0.26 (0.08) (0.05, 0.36)	0.09 (0.09) (-0.02, 0.28)	0.37 (0.00, 0.50)	0.63 (0.50, 1.00)	1.69 (1.00, 708.64)
N = 150, T = 100	yes	68340	0.19 (0.06) (0.08, 0.29)	0.16 (0.07) (0.04, 0.27)	0.73 (0.50, 0.77)	0.27 (0.23, 0.50)	2.68 (1.00, 3.43)

Table C8: Complete Statistical Results - Pooled Data for Set 4 H_{a2c} (Alternative Analysis)

Condition	Support H_{a2c}	N_{pooled}	ϕ_{12} Mean (SD) (min, max)	ϕ_{21} Mean (SD) (min, max)	w_{Ha2c} Median (min, max)	w_{Ha2} Median (min, max)	ratio ww' Median (min, max)
N = 50, T = 25	no	24208	0.19 (0.06) (0.08, 0.29)	0.15 (0.07) (0.04, 0.26)	0.28 (0.27, 0.50)	0.72 (0.50, 0.73)	2.51 (1.00, 2.73)
N = 50, T = 25	yes	792	0.29 (0.08) (0.08, 0.40)	0.09 (0.10) (-0.01, 0.32)	0.57 (0.50, 0.95)	0.43 (0.05, 0.50)	1.30 (1.00, 17.97)
N = 50, T = 50	no	22828	0.19 (0.06) (0.08, 0.28)	0.15 (0.06) (0.05, 0.26)	0.29 (0.27, 0.50)	0.71 (0.50, 0.73)	2.45 (1.00, 2.74)
N = 50, T = 50	yes	2172	0.26 (0.08) (0.08, 0.37)	0.10 (0.09) (-0.01, 0.29)	0.60 (0.50, 0.99)	0.40 (0.01, 0.50)	1.47 (1.00, 114.68)
N = 50, T = 75	no	21381	0.19 (0.06) (0.08, 0.28)	0.16 (0.07) (0.05, 0.27)	0.29 (0.27, 0.50)	0.71 (0.50, 0.73)	2.40 (1.00, 2.74)
N = 50, T = 75	yes	3619	0.25 (0.08) (0.08, 0.35)	0.10 (0.09) (-0.02, 0.30)	0.63 (0.50, 1.00)	0.37 (0.00, 0.50)	1.67 (1.00, 2038.46)
N = 50, T = 100	no	20149	0.18 (0.07) (0.07, 0.29)	0.16 (0.07) (0.05, 0.27)	0.30 (0.27, 0.50)	0.70 (0.50, 0.73)	2.38 (1.00, 2.74)
N = 50, T = 100	yes	4851	0.24 (0.09) (0.05, 0.36)	0.11 (0.09) (-0.01, 0.29)	0.66 (0.50, 1.00)	0.34 (0.00, 0.50)	1.94 (1.00, 5.77e+04)
N = 75, T = 25	no	36476	0.19 (0.06) (0.10, 0.28)	0.15 (0.06) (0.06, 0.25)	0.28 (0.27, 0.50)	0.72 (0.50, 0.73)	2.52 (1.00, 2.74)
N = 75, T = 25	yes	1024	0.29 (0.07) (0.14, 0.39)	0.09 (0.08) (-0.01, 0.24)	0.56 (0.50, 0.94)	0.44 (0.06, 0.50)	1.26 (1.00, 16.83)
N = 75, T = 50	no	34192	0.19 (0.06) (0.09, 0.28)	0.16 (0.06) (0.06, 0.26)	0.29 (0.27, 0.50)	0.71 (0.50, 0.73)	2.45 (1.00, 2.74)
N = 75, T = 50	yes	3308	0.26 (0.07) (0.09, 0.36)	0.09 (0.08) (-0.01, 0.27)	0.59 (0.50, 0.99)	0.41 (0.01, 0.50)	1.45 (1.00, 68.08)
N = 75, T = 75	no	32103	0.19 (0.06) (0.08, 0.28)	0.16 (0.07) (0.06, 0.26)	0.29 (0.27, 0.50)	0.71 (0.50, 0.73)	2.41 (1.00, 2.74)
N = 75, T = 75	yes	5397	0.24 (0.08) (0.06, 0.35)	0.10 (0.09) (-0.01, 0.28)	0.62 (0.50, 1.00)	0.38 (0.00, 0.50)	1.66 (1.00, 1.19e+04)
N = 75, T = 100	no	30144	0.18 (0.06) (0.08, 0.28)	0.16 (0.07) (0.05, 0.27)	0.30 (0.27, 0.50)	0.70 (0.50, 0.73)	2.37 (1.00, 2.74)
N = 75, T = 100	yes	7356	0.24 (0.08) (0.06, 0.35)	0.11 (0.09) (-0.01, 0.29)	0.66 (0.50, 1.00)	0.34 (0.00, 0.50)	1.93 (1.00, 4696.25)
N = 100, T = 25	no	48672	0.19 (0.05) (0.10, 0.28)	0.15 (0.06) (0.06, 0.25)	0.28 (0.27, 0.50)	0.72 (0.50, 0.73)	2.53 (1.00, 2.74)
N = 100, T = 25	yes	1328	0.28 (0.07) (0.18, 0.37)	0.08 (0.08) (-0.01, 0.26)	0.56 (0.50, 0.98)	0.44 (0.02, 0.50)	1.28 (1.00, 51.22)
N = 100, T = 50	no	45924	0.19 (0.06) (0.09, 0.28)	0.16 (0.06) (0.06, 0.25)	0.29 (0.27, 0.50)	0.71 (0.50, 0.73)	2.45 (1.00, 2.74)
N = 100, T = 50	yes	4076	0.25 (0.07) (0.08, 0.35)	0.09 (0.08) (-0.01, 0.28)	0.59 (0.50, 1.00)	0.41 (0.00, 0.50)	1.47 (1.00, 2012.63)
N = 100, T = 75	no	42932	0.19 (0.06) (0.08, 0.28)	0.16 (0.06) (0.06, 0.26)	0.29 (0.27, 0.50)	0.71 (0.50, 0.73)	2.40 (1.00, 2.74)
N = 100, T = 75	yes	7068	0.24 (0.08) (0.06, 0.35)	0.10 (0.09) (-0.01, 0.28)	0.63 (0.50, 1.00)	0.37 (0.00, 0.50)	1.69 (1.00, 4.66e+04)
N = 100, T = 100	no	40357	0.18 (0.06) (0.08, 0.28)	0.16 (0.07) (0.05, 0.27)	0.30 (0.27, 0.50)	0.70 (0.50, 0.73)	2.37 (1.00, 2.74)
N = 100, T = 100	yes	9643	0.24 (0.09) (0.05, 0.35)	0.11 (0.09) (-0.01, 0.29)	0.65 (0.50, 1.00)	0.35 (0.00, 0.50)	1.88 (1.00, 7870.53)
N = 150, T = 25	no	73313	0.19 (0.05) (0.11, 0.27)	0.15 (0.05) (0.07, 0.24)	0.28 (0.27, 0.50)	0.72 (0.50, 0.73)	2.53 (1.00, 2.74)
N = 150, T = 25	yes	1687	0.27 (0.06) (0.21, 0.36)	0.07 (0.07) (-0.01, 0.19)	0.56 (0.50, 0.98)	0.44 (0.02, 0.50)	1.27 (1.00, 48.49)
N = 150, T = 50	no	68736	0.19 (0.05) (0.10, 0.27)	0.16 (0.06) (0.06, 0.25)	0.29 (0.27, 0.50)	0.71 (0.50, 0.73)	2.46 (1.00, 2.74)
N = 150, T = 50	yes	6264	0.25 (0.07) (0.09, 0.34)	0.09 (0.07) (-0.01, 0.25)	0.60 (0.50, 1.00)	0.40 (0.00, 0.50)	1.48 (1.00, 291.54)
N = 150, T = 75	no	64476	0.19 (0.06) (0.09, 0.28)	0.16 (0.06) (0.06, 0.26)	0.29 (0.27, 0.50)	0.71 (0.50, 0.73)	2.41 (1.00, 2.74)
N = 150, T = 75	yes	10524	0.24 (0.08) (0.06, 0.35)	0.10 (0.08) (-0.01, 0.27)	0.63 (0.50, 1.00)	0.37 (0.00, 0.50)	1.70 (1.00, 861.49)
N = 150, T = 100	no	60474	0.18 (0.06) (0.08, 0.28)	0.16 (0.07) (0.06, 0.27)	0.30 (0.27, 0.50)	0.70 (0.50, 0.73)	2.37 (1.00, 2.74)
N = 150, T = 100	yes	14526	0.24 (0.08) (0.06, 0.34)	0.10 (0.09) (-0.01, 0.28)	0.66 (0.50, 1.00)	0.34 (0.00, 0.50)	1.92 (1.00, 5885.79)

C3 $\phi_{12} = 0.20, \phi_{21} = 0.175$

Table C9: Complete Statistical Results - Pooled Data for Set 1 H_1

			ϕ_{12}		ϕ_{21}		w_{H1}		w_{H1c}		ratio ww'	
Condition	Support H_1	N_{pooled}	Mean (SD)	(min, max)	Mean (SD)	(min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	10570	0.15 (0.06)	(0.04, 0.24)	0.23 (0.06)	(0.14, 0.34)	0.47	(0.03, 0.50)	0.53	(0.50, 0.97)	1.11	(1.00, 37.15)
N = 50, T = 25	yes	14430	0.24 (0.07)	(0.14, 0.36)	0.14 (0.06)	(0.04, 0.23)	0.54	(0.50, 0.99)	0.46	(0.01, 0.50)	1.18	(1.00, 74.95)
N = 50, T = 50	no	10156	0.15 (0.06)	(0.04, 0.24)	0.22 (0.06)	(0.13, 0.33)	0.47	(0.01, 0.50)	0.53	(0.50, 0.99)	1.14	(1.00, 140.67)
N = 50, T = 50	yes	14844	0.23 (0.06)	(0.14, 0.34)	0.14 (0.06)	(0.03, 0.24)	0.55	(0.50, 1.00)	0.45	(0.00, 0.50)	1.24	(1.00, 583.08)
N = 50, T = 75	no	10388	0.15 (0.06)	(0.04, 0.25)	0.22 (0.06)	(0.13, 0.33)	0.46	(0.00, 0.50)	0.54	(0.50, 1.00)	1.16	(1.00, 373.27)
N = 50, T = 75	yes	14612	0.23 (0.06)	(0.14, 0.33)	0.14 (0.06)	(0.03, 0.24)	0.56	(0.50, 1.00)	0.44	(0.00, 0.50)	1.29	(1.00, 4.27e+04)
N = 50, T = 100	no	10316	0.15 (0.07)	(0.03, 0.25)	0.22 (0.06)	(0.13, 0.33)	0.45	(0.00, 0.50)	0.55	(0.50, 1.00)	1.22	(1.00, 2524.23)
N = 50, T = 100	yes	14684	0.23 (0.06)	(0.13, 0.34)	0.14 (0.07)	(0.02, 0.24)	0.58	(0.50, 1.00)	0.42	(0.00, 0.50)	1.38	(1.00, 7451.16)
N = 75, T = 25	no	15463	0.15 (0.05)	(0.06, 0.23)	0.23 (0.06)	(0.14, 0.33)	0.47	(0.04, 0.50)	0.53	(0.50, 0.96)	1.11	(1.00, 24.40)
N = 75, T = 25	yes	22037	0.24 (0.06)	(0.15, 0.34)	0.14 (0.05)	(0.05, 0.23)	0.54	(0.50, 0.99)	0.46	(0.01, 0.50)	1.18	(1.00, 85.12)
N = 75, T = 50	no	15063	0.15 (0.06)	(0.05, 0.24)	0.22 (0.06)	(0.14, 0.32)	0.47	(0.00, 0.50)	0.53	(0.50, 1.00)	1.13	(1.00, 3321.78)
N = 75, T = 50	yes	22437	0.23 (0.06)	(0.15, 0.33)	0.14 (0.06)	(0.05, 0.23)	0.55	(0.50, 1.00)	0.45	(0.00, 0.50)	1.23	(1.00, 403.49)
N = 75, T = 75	no	15485	0.15 (0.06)	(0.05, 0.25)	0.22 (0.06)	(0.13, 0.32)	0.46	(0.00, 0.50)	0.54	(0.50, 1.00)	1.16	(1.00, 378.95)
N = 75, T = 75	yes	22015	0.23 (0.06)	(0.14, 0.33)	0.14 (0.06)	(0.03, 0.24)	0.56	(0.50, 1.00)	0.44	(0.00, 0.50)	1.29	(1.00, 1.89e+04)
N = 75, T = 100	no	15519	0.15 (0.06)	(0.04, 0.25)	0.22 (0.06)	(0.13, 0.33)	0.45	(0.00, 0.50)	0.55	(0.50, 1.00)	1.22	(1.00, 853.67)
N = 75, T = 100	yes	21981	0.23 (0.06)	(0.13, 0.33)	0.14 (0.07)	(0.03, 0.24)	0.58	(0.50, 1.00)	0.42	(0.00, 0.50)	1.38	(1.00, 4886.54)

Table C10: Complete Statistical Results - Pooled Data for Set 2 H_1

			ϕ_{12}		ϕ_{21}		w_{H1}		w_{H1c}		ratio ww'	
Condition	Support H_1	N_{pooled}	Mean (SD)	(min, max)	Mean (SD)	(min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	21781	0.19 (0.07)	(0.07, 0.29)	0.19 (0.07)	(0.08, 0.31)	0.27	(0.03, 0.38)	0.44	(0.04, 0.45)	1.65	(1.00, 1.65)
N = 50, T = 25	yes	3219	0.31 (0.06)	(0.22, 0.41)	0.10 (0.05)	(0.01, 0.18)	0.46	(0.38, 0.97)	0.34	(0.02, 0.38)	1.36	(1.00, 45.46)
N = 50, T = 50	no	20695	0.18 (0.06)	(0.07, 0.28)	0.19 (0.07)	(0.09, 0.30)	0.27	(0.01, 0.38)	0.44	(0.01, 0.45)	1.65	(1.00, 1.65)
N = 50, T = 50	yes	4305	0.28 (0.06)	(0.19, 0.38)	0.10 (0.06)	(-0.00, 0.20)	0.48	(0.38, 1.00)	0.32	(0.00, 0.38)	1.51	(1.00, 353.66)
N = 50, T = 75	no	20047	0.18 (0.07)	(0.06, 0.28)	0.19 (0.07)	(0.09, 0.30)	0.27	(0.00, 0.38)	0.44	(0.00, 0.45)	1.65	(1.00, 1.65)
N = 50, T = 75	yes	4953	0.27 (0.06)	(0.18, 0.36)	0.11 (0.06)	(0.00, 0.20)	0.50	(0.38, 1.00)	0.31	(0.00, 0.38)	1.61	(1.00, 2.59e+04)
N = 50, T = 100	no	19193	0.18 (0.07)	(0.06, 0.29)	0.20 (0.07)	(0.09, 0.31)	0.27	(0.00, 0.38)	0.43	(0.00, 0.45)	1.65	(1.00, 1.65)
N = 50, T = 100	yes	5807	0.26 (0.06)	(0.17, 0.37)	0.10 (0.06)	(-0.01, 0.20)	0.53	(0.38, 1.00)	0.29	(0.00, 0.38)	1.79	(1.00, 4519.36)
N = 75, T = 25	no	32556	0.19 (0.06)	(0.09, 0.28)	0.19 (0.07)	(0.09, 0.30)	0.27	(0.04, 0.38)	0.44	(0.06, 0.45)	1.65	(1.00, 1.65)
N = 75, T = 25	yes	4944	0.30 (0.05)	(0.22, 0.40)	0.11 (0.05)	(0.01, 0.18)	0.46	(0.38, 0.97)	0.34	(0.02, 0.38)	1.38	(1.00, 51.63)
N = 75, T = 50	no	31369	0.19 (0.06)	(0.08, 0.28)	0.19 (0.06)	(0.10, 0.30)	0.27	(0.00, 0.38)	0.44	(0.00, 0.45)	1.65	(1.00, 1.65)
N = 75, T = 50	yes	6131	0.27 (0.05)	(0.19, 0.37)	0.11 (0.06)	(0.01, 0.19)	0.48	(0.38, 0.99)	0.33	(0.00, 0.38)	1.46	(1.00, 244.73)
N = 75, T = 75	no	30250	0.18 (0.06)	(0.07, 0.28)	0.19 (0.07)	(0.09, 0.30)	0.27	(0.00, 0.38)	0.44	(0.00, 0.45)	1.65	(1.00, 1.65)
N = 75, T = 75	yes	7250	0.27 (0.06)	(0.18, 0.36)	0.11 (0.06)	(0.00, 0.20)	0.50	(0.38, 1.00)	0.31	(0.00, 0.38)	1.61	(1.00, 1.15e+04)
N = 75, T = 100	no	28933	0.18 (0.07)	(0.06, 0.28)	0.20 (0.07)	(0.09, 0.31)	0.27	(0.00, 0.38)	0.43	(0.00, 0.45)	1.65	(1.00, 1.65)
N = 75, T = 100	yes	8567	0.26 (0.06)	(0.17, 0.36)	0.11 (0.06)	(-0.00, 0.21)	0.52	(0.38, 1.00)	0.30	(0.00, 0.38)	1.77	(1.00, 2963.84)

Table C11: Complete Statistical Results – Pooled Data for Set 3 H_{a1}

			ϕ_{12}		ϕ_{21}		w_{Ha1}		w_{Ha1c}		ratio ww'	
Condition	Support H_{a1}	N_{pooled}	Mean (SD)	(min, max)	Mean (SD)	(min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	406	0.32 (0.13)	(0.04, 0.47)	0.15 (0.15)	(0.00, 0.44)	0.44	(0.09, 0.50)	0.56	(0.50, 0.91)	1.29	(1.01, 10.20)
N = 50, T = 25	yes	24594	0.20 (0.08)	(0.08, 0.32)	0.18 (0.07)	(0.06, 0.30)	0.73	(0.50, 0.76)	0.27	(0.24, 0.50)	2.68	(1.00, 3.09)
N = 50, T = 50	no	759	0.28 (0.12)	(0.04, 0.41)	0.13 (0.13)	(-0.01, 0.38)	0.42	(0.02, 0.50)	0.58	(0.50, 0.98)	1.37	(1.00, 53.07)
N = 50, T = 50	yes	24241	0.20 (0.07)	(0.08, 0.31)	0.18 (0.07)	(0.06, 0.29)	0.73	(0.50, 0.76)	0.27	(0.24, 0.50)	2.69	(1.00, 3.24)
N = 50, T = 75	no	1131	0.25 (0.12)	(0.02, 0.39)	0.14 (0.12)	(-0.01, 0.36)	0.41	(0.00, 0.50)	0.59	(0.50, 1.00)	1.47	(1.00, 1269.19)
N = 50, T = 75	yes	23869	0.19 (0.07)	(0.08, 0.31)	0.18 (0.07)	(0.06, 0.29)	0.73	(0.50, 0.77)	0.27	(0.23, 0.50)	2.69	(1.00, 3.31)
N = 50, T = 100	no	1723	0.24 (0.12)	(0.01, 0.39)	0.13 (0.12)	(-0.02, 0.36)	0.38	(0.00, 0.50)	0.62	(0.50, 1.00)	1.64	(1.00, 367.53)
N = 50, T = 100	yes	23277	0.19 (0.07)	(0.08, 0.31)	0.18 (0.07)	(0.06, 0.29)	0.73	(0.50, 0.77)	0.27	(0.23, 0.50)	2.69	(1.00, 3.28)
N = 75, T = 25	no	641	0.32 (0.12)	(0.05, 0.46)	0.14 (0.13)	(0.01, 0.41)	0.44	(0.09, 0.50)	0.56	(0.50, 0.91)	1.27	(1.00, 10.65)
N = 75, T = 25	yes	36859	0.20 (0.07)	(0.09, 0.31)	0.18 (0.07)	(0.07, 0.30)	0.73	(0.50, 0.76)	0.27	(0.24, 0.50)	2.68	(1.00, 3.12)
N = 75, T = 50	no	969	0.27 (0.12)	(0.03, 0.40)	0.13 (0.12)	(-0.01, 0.37)	0.42	(0.01, 0.50)	0.58	(0.50, 0.99)	1.36	(1.00, 196.92)
N = 75, T = 50	yes	36531	0.20 (0.07)	(0.09, 0.30)	0.18 (0.07)	(0.07, 0.29)	0.73	(0.50, 0.78)	0.27	(0.22, 0.50)	2.70	(1.00, 3.51)
N = 75, T = 75	no	1619	0.25 (0.12)	(0.03, 0.39)	0.13 (0.12)	(-0.01, 0.36)	0.40	(0.00, 0.50)	0.60	(0.50, 1.00)	1.47	(1.00, 701.83)
N = 75, T = 75	yes	35881	0.20 (0.07)	(0.08, 0.30)	0.18 (0.07)	(0.06, 0.29)	0.73	(0.50, 0.77)	0.27	(0.23, 0.50)	2.70	(1.00, 3.33)
N = 75, T = 100	no	2459	0.23 (0.12)	(0.02, 0.38)	0.14 (0.12)	(-0.01, 0.36)	0.39	(0.00, 0.50)	0.61	(0.50, 1.00)	1.59	(1.00, 247.99)
N = 75, T = 100	yes	35041	0.19 (0.07)	(0.08, 0.30)	0.18 (0.07)	(0.06, 0.29)	0.73	(0.50, 0.77)	0.27	(0.23, 0.50)	2.69	(1.00, 3.41)

Table C12: Complete Statistical Results – Pooled Data for Set 4 H_{a2c}

Condition	Support H_{a2c}	N_{pooled}	ϕ_{12} Mean (SD)	ϕ_{12} (min, max)	ϕ_{21} Mean (SD)	ϕ_{21} (min, max)	w_{Ha2c} Median	w_{Ha2c} (min, max)	w_{Ha2} Median	w_{Ha2} (min, max)	ratio ww' Median	ratio ww' (min, max)
N = 50, T = 25	no	23835	0.20 (0.07)	(0.08, 0.32)	0.18 (0.07)	(0.07, 0.30)	0.29	(0.27, 0.50)	0.71	(0.50, 0.73)	2.48	(1.00, 2.73)
N = 50, T = 25	yes	1165	0.28 (0.13)	(0.04, 0.44)	0.16 (0.13)	(0.01, 0.41)	0.57	(0.50, 0.96)	0.43	(0.04, 0.50)	1.32	(1.00, 22.37)
N = 50, T = 50	no	22977	0.20 (0.07)	(0.09, 0.30)	0.18 (0.07)	(0.07, 0.29)	0.29	(0.27, 0.50)	0.71	(0.50, 0.73)	2.46	(1.00, 2.74)
N = 50, T = 50	yes	2023	0.25 (0.11)	(0.04, 0.39)	0.14 (0.11)	(-0.00, 0.36)	0.59	(0.50, 0.99)	0.41	(0.01, 0.50)	1.45	(1.00, 160.00)
N = 50, T = 75	no	22243	0.19 (0.07)	(0.08, 0.30)	0.18 (0.07)	(0.07, 0.29)	0.29	(0.27, 0.50)	0.71	(0.50, 0.73)	2.44	(1.00, 2.74)
N = 50, T = 75	yes	2757	0.23 (0.11)	(0.02, 0.37)	0.15 (0.11)	(-0.00, 0.34)	0.61	(0.50, 1.00)	0.39	(0.00, 0.50)	1.58	(1.00, 9236.59)
N = 50, T = 100	no	21119	0.19 (0.07)	(0.08, 0.30)	0.18 (0.07)	(0.07, 0.29)	0.29	(0.27, 0.50)	0.71	(0.50, 0.73)	2.40	(1.00, 2.74)
N = 50, T = 100	yes	3881	0.23 (0.11)	(0.02, 0.37)	0.14 (0.11)	(-0.01, 0.34)	0.64	(0.50, 1.00)	0.36	(0.00, 0.50)	1.76	(1.00, 1796.81)
N = 75, T = 25	no	35720	0.20 (0.07)	(0.09, 0.31)	0.18 (0.07)	(0.08, 0.29)	0.29	(0.27, 0.50)	0.71	(0.50, 0.73)	2.48	(1.00, 2.73)
N = 75, T = 25	yes	1780	0.28 (0.12)	(0.06, 0.43)	0.15 (0.12)	(0.01, 0.39)	0.57	(0.50, 0.96)	0.43	(0.04, 0.50)	1.34	(1.00, 24.94)
N = 75, T = 50	no	34759	0.20 (0.06)	(0.09, 0.30)	0.18 (0.06)	(0.08, 0.28)	0.29	(0.27, 0.50)	0.71	(0.50, 0.73)	2.47	(1.00, 2.74)
N = 75, T = 50	yes	2741	0.25 (0.11)	(0.03, 0.38)	0.14 (0.11)	(0.00, 0.35)	0.59	(0.50, 1.00)	0.41	(0.00, 0.50)	1.45	(1.00, 832.60)
N = 75, T = 75	no	33447	0.19 (0.06)	(0.09, 0.30)	0.18 (0.07)	(0.07, 0.29)	0.29	(0.27, 0.50)	0.71	(0.50, 0.73)	2.44	(1.00, 2.74)
N = 75, T = 75	yes	4053	0.23 (0.11)	(0.03, 0.37)	0.14 (0.11)	(0.00, 0.34)	0.61	(0.50, 1.00)	0.39	(0.00, 0.50)	1.58	(1.00, 4298.32)
N = 75, T = 100	no	31843	0.19 (0.07)	(0.08, 0.30)	0.18 (0.07)	(0.07, 0.29)	0.29	(0.27, 0.50)	0.71	(0.50, 0.73)	2.40	(1.00, 2.74)
N = 75, T = 100	yes	5657	0.22 (0.10)	(0.03, 0.37)	0.15 (0.11)	(-0.00, 0.34)	0.64	(0.50, 1.00)	0.36	(0.00, 0.50)	1.75	(1.00, 1184.48)

C4 $\phi_{12} = 0.15, \phi_{21} = 0.15$

Table C13: Complete Statistical Results – Pooled Data for Set 1 H_1

Condition	Support H_1	N_{pooled}	ϕ_{12} Mean (SD)	ϕ_{12} (min, max)	ϕ_{21} Mean (SD)	ϕ_{21} (min, max)	w_{H1} Median	w_{H1} (min, max)	w_{H1c} Median	w_{H1c} (min, max)	ratio ww' Median	ratio ww' (min, max)
N = 50, T = 25	no	13233	0.11 (0.06)	(0.01, 0.20)	0.18 (0.06)	(0.10, 0.28)	0.48	(0.02, 0.50)	0.52	(0.50, 0.98)	1.10	(1.00, 39.20)
N = 50, T = 25	yes	11767	0.18 (0.06)	(0.10, 0.27)	0.11 (0.06)	(0.00, 0.20)	0.52	(0.50, 0.98)	0.48	(0.02, 0.50)	1.09	(1.00, 52.18)
N = 50, T = 50	no	12415	0.11 (0.06)	(0.00, 0.20)	0.18 (0.06)	(0.10, 0.28)	0.46	(0.00, 0.50)	0.54	(0.50, 1.00)	1.16	(1.00, 876.27)
N = 50, T = 50	yes	12585	0.18 (0.06)	(0.10, 0.28)	0.11 (0.06)	(0.00, 0.20)	0.54	(0.50, 0.99)	0.46	(0.01, 0.50)	1.16	(1.00, 170.99)
N = 50, T = 75	no	12433	0.11 (0.06)	(-0.00, 0.21)	0.19 (0.06)	(0.10, 0.29)	0.45	(0.00, 0.50)	0.55	(0.50, 1.00)	1.22	(1.00, 300.27)
N = 50, T = 75	yes	12567	0.19 (0.06)	(0.10, 0.29)	0.11 (0.06)	(-0.00, 0.21)	0.55	(0.50, 1.00)	0.45	(0.00, 0.50)	1.22	(1.00, 786.08)
N = 50, T = 100	no	12558	0.11 (0.06)	(-0.00, 0.21)	0.19 (0.06)	(0.09, 0.29)	0.44	(0.00, 0.50)	0.56	(0.50, 1.00)	1.29	(1.00, 6086.71)
N = 50, T = 100	yes	12442	0.19 (0.06)	(0.10, 0.29)	0.11 (0.06)	(-0.00, 0.21)	0.57	(0.50, 1.00)	0.43	(0.00, 0.50)	1.30	(1.00, 2811.86)
N = 75, T = 25	no	18450	0.12 (0.05)	(0.02, 0.19)	0.18 (0.05)	(0.11, 0.27)	0.48	(0.03, 0.50)	0.52	(0.50, 0.97)	1.08	(1.00, 27.66)
N = 75, T = 25	yes	19050	0.18 (0.05)	(0.11, 0.27)	0.12 (0.05)	(0.03, 0.19)	0.52	(0.50, 0.96)	0.48	(0.04, 0.50)	1.09	(1.00, 22.82)
N = 75, T = 50	no	18525	0.11 (0.06)	(0.01, 0.20)	0.18 (0.05)	(0.10, 0.27)	0.47	(0.00, 0.50)	0.53	(0.50, 1.00)	1.14	(1.00, 533.35)
N = 75, T = 50	yes	18975	0.18 (0.05)	(0.10, 0.27)	0.11 (0.06)	(0.01, 0.20)	0.53	(0.50, 0.99)	0.47	(0.01, 0.50)	1.15	(1.00, 135.31)
N = 75, T = 75	no	18693	0.11 (0.06)	(0.00, 0.20)	0.18 (0.06)	(0.10, 0.28)	0.45	(0.00, 0.50)	0.55	(0.50, 1.00)	1.21	(1.00, 3588.48)
N = 75, T = 75	yes	18807	0.19 (0.06)	(0.10, 0.28)	0.11 (0.06)	(0.01, 0.20)	0.55	(0.50, 1.00)	0.45	(0.00, 0.50)	1.22	(1.00, 1329.63)
N = 75, T = 100	no	18949	0.11 (0.06)	(-0.00, 0.21)	0.19 (0.06)	(0.09, 0.29)	0.44	(0.00, 0.50)	0.56	(0.50, 1.00)	1.30	(1.00, 2.37e+04)
N = 75, T = 100	yes	18551	0.19 (0.06)	(0.09, 0.29)	0.11 (0.06)	(-0.00, 0.21)	0.56	(0.50, 1.00)	0.44	(0.00, 0.50)	1.28	(1.00, 4210.46)
N = 100, T = 25	no	24975	0.12 (0.05)	(0.03, 0.19)	0.18 (0.05)	(0.11, 0.26)	0.48	(0.03, 0.50)	0.52	(0.50, 0.97)	1.08	(1.00, 37.57)
N = 100, T = 25	yes	25025	0.18 (0.05)	(0.11, 0.26)	0.12 (0.05)	(0.03, 0.19)	0.52	(0.50, 0.97)	0.48	(0.03, 0.50)	1.08	(1.00, 32.93)
N = 100, T = 50	no	25229	0.11 (0.05)	(0.02, 0.20)	0.18 (0.05)	(0.10, 0.27)	0.47	(0.01, 0.50)	0.53	(0.50, 0.99)	1.14	(1.00, 191.25)
N = 100, T = 50	yes	24771	0.18 (0.05)	(0.10, 0.27)	0.11 (0.05)	(0.02, 0.20)	0.53	(0.50, 0.99)	0.47	(0.01, 0.50)	1.14	(1.00, 91.37)
N = 100, T = 75	no	25010	0.11 (0.06)	(0.01, 0.21)	0.19 (0.06)	(0.10, 0.28)	0.45	(0.00, 0.50)	0.55	(0.50, 1.00)	1.21	(1.00, 3817.70)
N = 100, T = 75	yes	24990	0.18 (0.06)	(0.10, 0.28)	0.11 (0.06)	(0.00, 0.20)	0.55	(0.50, 1.00)	0.45	(0.00, 0.50)	1.21	(1.00, 1244.23)
N = 100, T = 100	no	25198	0.11 (0.06)	(-0.00, 0.21)	0.19 (0.06)	(0.09, 0.29)	0.44	(0.00, 0.50)	0.56	(0.50, 1.00)	1.29	(1.00, 3675.80)
N = 100, T = 100	yes	24802	0.19 (0.06)	(0.09, 0.29)	0.11 (0.06)	(0.00, 0.21)	0.56	(0.50, 1.00)	0.44	(0.00, 0.50)	1.29	(1.00, 4.02e+05)
N = 150, T = 25	no	38246	0.12 (0.05)	(0.04, 0.19)	0.18 (0.04)	(0.11, 0.25)	0.48	(0.01, 0.50)	0.52	(0.50, 0.99)	1.08	(1.00, 88.31)
N = 150, T = 25	yes	36754	0.18 (0.04)	(0.11, 0.25)	0.12 (0.05)	(0.04, 0.19)	0.52	(0.50, 0.94)	0.48	(0.06, 0.50)	1.07	(1.00, 15.08)
N = 150, T = 50	no	37381	0.12 (0.05)	(0.02, 0.20)	0.18 (0.05)	(0.10, 0.27)	0.47	(0.00, 0.50)	0.53	(0.50, 1.00)	1.14	(1.00, 670.02)
N = 150, T = 50	yes	37619	0.18 (0.05)	(0.11, 0.27)	0.12 (0.05)	(0.02, 0.20)	0.53	(0.50, 1.00)	0.47	(0.00, 0.50)	1.14	(1.00, 202.67)
N = 150, T = 75	no	37894	0.11 (0.06)	(0.01, 0.20)	0.18 (0.05)	(0.10, 0.28)	0.45	(0.00, 0.50)	0.55	(0.50, 1.00)	1.21	(1.00, 2509.81)
N = 150, T = 75	yes	37106	0.18 (0.06)	(0.10, 0.28)	0.11 (0.06)	(0.01, 0.20)	0.55	(0.50, 1.00)	0.45	(0.00, 0.50)	1.21	(1.00, 1.48e+04)
N = 150, T = 100	no	37248	0.11 (0.06)	(0.00, 0.21)	0.19 (0.06)	(0.09, 0.29)	0.44	(0.00, 0.50)	0.56	(0.50, 1.00)	1.28	(1.00, 2.62e+05)
N = 150, T = 100	yes	37752	0.19 (0.06)	(0.09, 0.29)	0.11 (0.06)	(0.00, 0.21)	0.56	(0.50, 1.00)	0.44	(0.00, 0.50)	1.30	(1.00, 2755.74)

Table C14: Complete Statistical Results - Pooled Data for Set 2 H_1

Condition	Support H_1	N_{pooled}	ϕ_{12} Mean (SD)	ϕ_{12} (min, max)	ϕ_{21} Mean (SD)	ϕ_{21} (min, max)	w_{H1} Median	w_{H1} (min, max)	w_{H1c} Median	w_{H1c} (min, max)	ratio ww' Median	ratio ww' (min, max)
N = 50, T = 25	no	23896	0.14 (0.06)	(0.03, 0.24)	0.15 (0.07)	(0.05, 0.26)	0.27	(0.02, 0.38)	0.44	(0.04, 0.45)	1.65	(1.00, 1.65)
N = 50, T = 25	yes	1104	0.25 (0.05)	(0.17, 0.35)	0.06 (0.06)	(-0.02, 0.15)	0.44	(0.38, 0.95)	0.35	(0.03, 0.38)	1.24	(1.00, 31.65)
N = 50, T = 50	no	22444	0.14 (0.06)	(0.03, 0.23)	0.16 (0.07)	(0.05, 0.26)	0.27	(0.00, 0.38)	0.44	(0.00, 0.45)	1.65	(1.00, 1.65)
N = 50, T = 50	yes	2556	0.23 (0.05)	(0.16, 0.33)	0.07 (0.06)	(-0.02, 0.16)	0.46	(0.38, 0.98)	0.34	(0.01, 0.38)	1.37	(1.00, 103.71)
N = 50, T = 75	no	21507	0.13 (0.07)	(0.02, 0.24)	0.16 (0.07)	(0.05, 0.27)	0.27	(0.00, 0.38)	0.43	(0.01, 0.45)	1.65	(1.00, 1.65)
N = 50, T = 75	yes	3493	0.23 (0.05)	(0.15, 0.32)	0.07 (0.06)	(-0.02, 0.17)	0.48	(0.38, 1.00)	0.32	(0.00, 0.38)	1.50	(1.00, 476.78)
N = 50, T = 100	no	20688	0.13 (0.07)	(0.01, 0.24)	0.16 (0.07)	(0.06, 0.27)	0.27	(0.00, 0.38)	0.43	(0.00, 0.45)	1.65	(1.00, 1.65)
N = 50, T = 100	yes	4312	0.23 (0.06)	(0.14, 0.32)	0.08 (0.06)	(-0.02, 0.18)	0.51	(0.38, 1.00)	0.30	(0.00, 0.38)	1.70	(1.00, 1705.48)
N = 75, T = 25	no	35655	0.15 (0.06)	(0.05, 0.23)	0.15 (0.06)	(0.06, 0.25)	0.27	(0.03, 0.38)	0.44	(0.05, 0.45)	1.65	(1.00, 1.65)
N = 75, T = 25	yes	1845	0.24 (0.05)	(0.17, 0.33)	0.07 (0.05)	(-0.01, 0.16)	0.43	(0.38, 0.90)	0.35	(0.06, 0.38)	1.22	(1.00, 13.84)
N = 75, T = 50	no	33862	0.14 (0.06)	(0.04, 0.23)	0.16 (0.06)	(0.06, 0.26)	0.27	(0.00, 0.38)	0.44	(0.00, 0.45)	1.65	(1.00, 1.65)
N = 75, T = 50	yes	3638	0.23 (0.05)	(0.15, 0.31)	0.07 (0.05)	(-0.02, 0.16)	0.46	(0.38, 0.98)	0.34	(0.01, 0.38)	1.36	(1.00, 82.07)
N = 75, T = 75	no	32263	0.14 (0.06)	(0.02, 0.24)	0.16 (0.06)	(0.06, 0.27)	0.27	(0.00, 0.38)	0.43	(0.00, 0.45)	1.65	(1.00, 1.65)
N = 75, T = 75	yes	5237	0.23 (0.05)	(0.15, 0.32)	0.08 (0.06)	(-0.01, 0.17)	0.49	(0.38, 1.00)	0.32	(0.00, 0.38)	1.53	(1.00, 806.46)
N = 75, T = 100	no	31091	0.13 (0.07)	(0.01, 0.24)	0.16 (0.07)	(0.06, 0.27)	0.27	(0.00, 0.38)	0.43	(0.00, 0.45)	1.65	(1.00, 1.65)
N = 75, T = 100	yes	6409	0.22 (0.05)	(0.14, 0.32)	0.08 (0.06)	(-0.02, 0.17)	0.52	(0.38, 1.00)	0.30	(0.00, 0.38)	1.71	(1.00, 2553.77)
N = 100, T = 25	no	47846	0.14 (0.05)	(0.05, 0.23)	0.15 (0.05)	(0.06, 0.24)	0.27	(0.02, 0.38)	0.44	(0.04, 0.45)	1.65	(1.00, 1.65)
N = 100, T = 25	yes	2154	0.24 (0.05)	(0.17, 0.33)	0.07 (0.05)	(-0.01, 0.16)	0.43	(0.38, 0.93)	0.35	(0.05, 0.38)	1.21	(1.00, 19.97)
N = 100, T = 50	no	45339	0.14 (0.06)	(0.04, 0.23)	0.16 (0.06)	(0.06, 0.25)	0.27	(0.01, 0.38)	0.44	(0.01, 0.45)	1.65	(1.00, 1.65)
N = 100, T = 50	yes	4661	0.22 (0.05)	(0.15, 0.31)	0.07 (0.05)	(-0.01, 0.16)	0.46	(0.38, 0.97)	0.34	(0.02, 0.38)	1.35	(1.00, 55.42)
N = 100, T = 75	no	43101	0.14 (0.06)	(0.03, 0.23)	0.16 (0.06)	(0.06, 0.26)	0.27	(0.00, 0.38)	0.43	(0.00, 0.45)	1.65	(1.00, 1.65)
N = 100, T = 75	yes	6899	0.22 (0.05)	(0.15, 0.31)	0.07 (0.06)	(-0.02, 0.17)	0.49	(0.38, 1.00)	0.32	(0.00, 0.38)	1.52	(1.00, 754.66)
N = 100, T = 100	no	41506	0.13 (0.07)	(0.02, 0.24)	0.16 (0.07)	(0.06, 0.27)	0.27	(0.00, 0.38)	0.43	(0.00, 0.45)	1.65	(1.00, 1.65)
N = 100, T = 100	yes	8494	0.22 (0.05)	(0.14, 0.32)	0.08 (0.06)	(-0.02, 0.18)	0.51	(0.38, 1.00)	0.31	(0.00, 0.38)	1.67	(1.00, 2.44e+05)
N = 150, T = 25	no	72286	0.14 (0.05)	(0.06, 0.22)	0.15 (0.05)	(0.07, 0.24)	0.27	(0.01, 0.38)	0.44	(0.02, 0.45)	1.65	(1.00, 1.65)
N = 150, T = 25	yes	2714	0.23 (0.05)	(0.16, 0.31)	0.07 (0.05)	(-0.01, 0.15)	0.43	(0.38, 0.85)	0.36	(0.09, 0.38)	1.21	(1.00, 9.15)
N = 150, T = 50	no	68035	0.14 (0.06)	(0.04, 0.23)	0.16 (0.06)	(0.07, 0.25)	0.27	(0.00, 0.38)	0.44	(0.00, 0.45)	1.65	(1.00, 1.65)
N = 150, T = 50	yes	6965	0.22 (0.05)	(0.15, 0.30)	0.07 (0.05)	(-0.01, 0.16)	0.46	(0.38, 0.99)	0.34	(0.01, 0.38)	1.35	(1.00, 122.92)
N = 150, T = 75	no	64788	0.14 (0.06)	(0.03, 0.23)	0.16 (0.06)	(0.06, 0.26)	0.27	(0.00, 0.38)	0.43	(0.00, 0.45)	1.65	(1.00, 1.65)
N = 150, T = 75	yes	10212	0.22 (0.05)	(0.15, 0.31)	0.08 (0.05)	(-0.01, 0.17)	0.49	(0.38, 1.00)	0.32	(0.00, 0.38)	1.53	(1.00, 8949.12)
N = 150, T = 100	no	61853	0.13 (0.07)	(0.02, 0.24)	0.16 (0.07)	(0.06, 0.27)	0.27	(0.00, 0.38)	0.43	(0.00, 0.45)	1.65	(1.00, 1.65)
N = 150, T = 100	yes	13147	0.22 (0.05)	(0.14, 0.31)	0.08 (0.06)	(-0.02, 0.17)	0.52	(0.38, 1.00)	0.30	(0.00, 0.38)	1.71	(1.00, 1671.44)

Table C15: Complete Statistical Results – Pooled Data for Set 3 H_{a1}

Condition	Support H_{a1}	N_{pooled}	ϕ_{12} Mean (SD)	ϕ_{12} (min, max)	ϕ_{21} Mean (SD)	ϕ_{21} (min, max)	w_{Ha1} Median	w_{Ha1} (min, max)	w_{Ha1c} Median	w_{Ha1c} (min, max)	ratio ww' Median	ratio ww' (min, max)
N = 50, T = 25	no	107	0.17 (0.15)	(-0.01, 0.41)	0.24 (0.15)	(0.00, 0.42)	0.45	(0.12, 0.50)	0.55	(0.50, 0.88)	1.21	(1.00, 7.34)
N = 50, T = 25	yes	24893	0.14 (0.07)	(0.03, 0.25)	0.15 (0.07)	(0.03, 0.26)	0.73	(0.50, 0.76)	0.27	(0.24, 0.50)	2.71	(1.00, 3.10)
N = 50, T = 50	no	410	0.18 (0.13)	(0.00, 0.37)	0.19 (0.14)	(0.00, 0.38)	0.42	(0.02, 0.50)	0.58	(0.50, 0.98)	1.35	(1.00, 53.82)
N = 50, T = 50	yes	24590	0.15 (0.07)	(0.03, 0.25)	0.15 (0.07)	(0.03, 0.25)	0.73	(0.50, 0.78)	0.27	(0.22, 0.50)	2.71	(1.00, 3.47)
N = 50, T = 75	no	893	0.16 (0.13)	(-0.01, 0.35)	0.18 (0.13)	(-0.01, 0.35)	0.41	(0.02, 0.50)	0.59	(0.50, 0.98)	1.47	(1.00, 48.83)
N = 50, T = 75	yes	24107	0.15 (0.07)	(0.03, 0.26)	0.15 (0.07)	(0.03, 0.26)	0.73	(0.50, 0.77)	0.27	(0.23, 0.50)	2.70	(1.00, 3.40)
N = 50, T = 100	no	1416	0.17 (0.12)	(-0.01, 0.34)	0.16 (0.12)	(-0.01, 0.33)	0.39	(0.00, 0.50)	0.61	(0.50, 1.00)	1.55	(1.00, 276.01)
N = 50, T = 100	yes	23584	0.15 (0.07)	(0.03, 0.26)	0.15 (0.07)	(0.03, 0.26)	0.73	(0.50, 0.78)	0.27	(0.22, 0.50)	2.70	(1.00, 3.46)
N = 75, T = 25	no	115	0.17 (0.15)	(-0.02, 0.38)	0.21 (0.15)	(-0.00, 0.40)	0.46	(0.18, 0.50)	0.54	(0.50, 0.82)	1.20	(1.00, 4.47)
N = 75, T = 25	yes	37385	0.15 (0.06)	(0.05, 0.25)	0.15 (0.06)	(0.05, 0.24)	0.73	(0.50, 0.76)	0.27	(0.24, 0.50)	2.72	(1.00, 3.16)
N = 75, T = 50	no	574	0.17 (0.13)	(-0.01, 0.35)	0.18 (0.13)	(-0.01, 0.37)	0.43	(0.02, 0.50)	0.57	(0.50, 0.98)	1.32	(1.00, 49.45)
N = 75, T = 50	yes	36926	0.15 (0.06)	(0.04, 0.25)	0.15 (0.06)	(0.04, 0.25)	0.73	(0.50, 0.77)	0.27	(0.23, 0.50)	2.72	(1.00, 3.38)
N = 75, T = 75	no	1321	0.17 (0.13)	(-0.01, 0.34)	0.16 (0.12)	(-0.01, 0.34)	0.42	(0.00, 0.50)	0.58	(0.50, 1.00)	1.41	(1.00, 200.33)
N = 75, T = 75	yes	36179	0.15 (0.07)	(0.03, 0.25)	0.15 (0.07)	(0.04, 0.25)	0.73	(0.50, 0.78)	0.27	(0.22, 0.50)	2.71	(1.00, 3.46)
N = 75, T = 100	no	2181	0.16 (0.12)	(-0.01, 0.33)	0.16 (0.12)	(-0.01, 0.33)	0.39	(0.00, 0.50)	0.61	(0.50, 1.00)	1.54	(1.00, 835.24)
N = 75, T = 100	yes	35319	0.15 (0.07)	(0.03, 0.26)	0.15 (0.07)	(0.03, 0.26)	0.73	(0.50, 0.78)	0.27	(0.22, 0.50)	2.70	(1.00, 3.46)
N = 100, T = 25	no	138	0.20 (0.15)	(-0.01, 0.38)	0.19 (0.14)	(-0.01, 0.40)	0.45	(0.17, 0.50)	0.55	(0.50, 0.83)	1.24	(1.01, 4.89)
N = 100, T = 25	yes	49862	0.15 (0.06)	(0.05, 0.24)	0.15 (0.06)	(0.05, 0.24)	0.73	(0.50, 0.76)	0.27	(0.24, 0.50)	2.72	(1.00, 3.23)
N = 100, T = 50	no	596	0.17 (0.13)	(-0.00, 0.34)	0.18 (0.13)	(-0.01, 0.35)	0.44	(0.07, 0.50)	0.56	(0.50, 0.93)	1.28	(1.00, 13.42)
N = 100, T = 50	yes	49404	0.15 (0.06)	(0.04, 0.24)	0.15 (0.06)	(0.04, 0.25)	0.73	(0.50, 0.77)	0.27	(0.23, 0.50)	2.72	(1.00, 3.43)
N = 100, T = 75	no	1650	0.16 (0.12)	(-0.01, 0.33)	0.16 (0.13)	(-0.01, 0.34)	0.41	(0.01, 0.50)	0.59	(0.50, 0.99)	1.44	(1.00, 188.01)
N = 100, T = 75	yes	48350	0.15 (0.07)	(0.04, 0.25)	0.15 (0.07)	(0.03, 0.25)	0.73	(0.50, 0.77)	0.27	(0.23, 0.50)	2.71	(1.00, 3.40)
N = 100, T = 100	no	2851	0.16 (0.12)	(-0.01, 0.33)	0.16 (0.12)	(-0.01, 0.33)	0.39	(0.00, 0.50)	0.61	(0.50, 1.00)	1.55	(1.00, 7175.42)
N = 100, T = 100	yes	47149	0.15 (0.07)	(0.03, 0.26)	0.15 (0.07)	(0.03, 0.26)	0.73	(0.50, 0.77)	0.27	(0.23, 0.50)	2.70	(1.00, 3.38)
N = 150, T = 25	no	158	0.16 (0.13)	(-0.01, 0.35)	0.19 (0.14)	(-0.00, 0.36)	0.44	(0.10, 0.50)	0.56	(0.50, 0.90)	1.25	(1.00, 8.96)
N = 150, T = 25	yes	74842	0.15 (0.05)	(0.06, 0.23)	0.15 (0.05)	(0.06, 0.23)	0.73	(0.50, 0.77)	0.27	(0.23, 0.50)	2.72	(1.00, 3.27)
N = 150, T = 50	no	932	0.16 (0.13)	(-0.00, 0.34)	0.16 (0.13)	(-0.01, 0.33)	0.43	(0.02, 0.50)	0.57	(0.50, 0.98)	1.31	(1.00, 45.55)
N = 150, T = 50	yes	74068	0.15 (0.06)	(0.05, 0.25)	0.15 (0.06)	(0.05, 0.24)	0.73	(0.50, 0.77)	0.27	(0.23, 0.50)	2.72	(1.00, 3.27)
N = 150, T = 75	no	2419	0.15 (0.12)	(-0.01, 0.33)	0.16 (0.12)	(-0.01, 0.33)	0.41	(0.00, 0.50)	0.59	(0.50, 1.00)	1.42	(1.00, 452.86)
N = 150, T = 75	yes	72581	0.15 (0.07)	(0.04, 0.25)	0.15 (0.06)	(0.04, 0.25)	0.73	(0.50, 0.77)	0.27	(0.23, 0.50)	2.71	(1.00, 3.31)
N = 150, T = 100	no	4435	0.16 (0.12)	(-0.01, 0.32)	0.15 (0.12)	(-0.01, 0.33)	0.39	(0.00, 0.50)	0.61	(0.50, 1.00)	1.54	(1.00, 4810.59)
N = 150, T = 100	yes	70565	0.15 (0.07)	(0.04, 0.26)	0.15 (0.07)	(0.03, 0.26)	0.73	(0.50, 0.77)	0.27	(0.23, 0.50)	2.70	(1.00, 3.40)

Table C16: Complete Statistical Results – Pooled Data for Set 4 H_{a2}

Condition	Support H_{a2}	N_{pooled}	ϕ_{12} Mean (SD) (min, max)	ϕ_{21} Mean (SD) (min, max)	w_{Ha2} Median (min, max)	w_{Ha2c} Median (min, max)	ratio ww' Median (min, max)
N = 50, T = 25	no	389	0.16 (0.14) (-0.01, 0.38)	0.20 (0.13) (-0.00, 0.38)	0.44 (0.06, 0.50)	0.56 (0.50, 0.94)	1.27 (1.00, 15.67)
N = 50, T = 25	yes	24611	0.14 (0.07) (0.03, 0.25)	0.15 (0.07) (0.03, 0.25)	0.72 (0.50, 0.73)	0.28 (0.27, 0.50)	2.56 (1.00, 2.73)
N = 50, T = 50	no	1340	0.16 (0.11) (-0.00, 0.34)	0.17 (0.12) (-0.00, 0.34)	0.42 (0.00, 0.50)	0.58 (0.50, 1.00)	1.40 (1.00, 220.47)
N = 50, T = 50	yes	23660	0.15 (0.06) (0.04, 0.25)	0.15 (0.07) (0.04, 0.25)	0.71 (0.50, 0.73)	0.29 (0.27, 0.50)	2.50 (1.00, 2.74)
N = 50, T = 75	no	2492	0.16 (0.11) (-0.01, 0.33)	0.16 (0.11) (-0.01, 0.33)	0.39 (0.01, 0.50)	0.61 (0.50, 0.99)	1.54 (1.00, 198.20)
N = 50, T = 75	yes	22508	0.15 (0.07) (0.04, 0.25)	0.15 (0.07) (0.04, 0.25)	0.71 (0.50, 0.73)	0.29 (0.27, 0.50)	2.44 (1.00, 2.74)
N = 50, T = 100	no	3608	0.16 (0.11) (-0.01, 0.32)	0.15 (0.11) (-0.01, 0.32)	0.37 (0.00, 0.50)	0.63 (0.50, 1.00)	1.69 (1.00, 1439.73)
N = 50, T = 100	yes	21392	0.15 (0.07) (0.03, 0.25)	0.15 (0.07) (0.04, 0.25)	0.71 (0.50, 0.73)	0.29 (0.27, 0.50)	2.41 (1.00, 2.74)
N = 75, T = 25	no	492	0.18 (0.13) (-0.01, 0.36)	0.18 (0.13) (-0.00, 0.37)	0.44 (0.10, 0.50)	0.56 (0.50, 0.90)	1.26 (1.00, 8.55)
N = 75, T = 25	yes	37008	0.15 (0.06) (0.05, 0.24)	0.15 (0.06) (0.05, 0.24)	0.72 (0.50, 0.73)	0.28 (0.27, 0.50)	2.59 (1.00, 2.73)
N = 75, T = 50	no	1805	0.16 (0.11) (-0.00, 0.32)	0.16 (0.12) (-0.00, 0.33)	0.42 (0.01, 0.50)	0.58 (0.50, 0.99)	1.39 (1.00, 146.92)
N = 75, T = 50	yes	35695	0.15 (0.06) (0.05, 0.24)	0.15 (0.06) (0.04, 0.24)	0.72 (0.50, 0.73)	0.28 (0.27, 0.50)	2.51 (1.00, 2.74)
N = 75, T = 75	no	3718	0.16 (0.11) (-0.01, 0.32)	0.16 (0.11) (-0.00, 0.32)	0.39 (0.00, 0.50)	0.61 (0.50, 1.00)	1.55 (1.00, 887.72)
N = 75, T = 75	yes	33782	0.15 (0.06) (0.04, 0.25)	0.15 (0.06) (0.04, 0.25)	0.71 (0.50, 0.73)	0.29 (0.27, 0.50)	2.46 (1.00, 2.74)
N = 75, T = 100	no	5562	0.16 (0.11) (-0.01, 0.31)	0.15 (0.11) (-0.01, 0.31)	0.37 (0.00, 0.50)	0.63 (0.50, 1.00)	1.69 (1.00, 5326.82)
N = 75, T = 100	yes	31938	0.15 (0.07) (0.03, 0.25)	0.15 (0.07) (0.04, 0.25)	0.71 (0.50, 0.73)	0.29 (0.27, 0.50)	2.42 (1.00, 2.74)
N = 100, T = 25	no	538	0.18 (0.13) (-0.00, 0.36)	0.17 (0.13) (-0.00, 0.36)	0.44 (0.09, 0.50)	0.56 (0.50, 0.91)	1.29 (1.00, 10.48)
N = 100, T = 25	yes	49462	0.15 (0.06) (0.06, 0.24)	0.15 (0.06) (0.05, 0.24)	0.72 (0.50, 0.73)	0.28 (0.27, 0.50)	2.59 (1.00, 2.74)
N = 100, T = 50	no	2304	0.16 (0.11) (-0.00, 0.32)	0.16 (0.11) (-0.00, 0.33)	0.43 (0.02, 0.50)	0.57 (0.50, 0.98)	1.35 (1.00, 49.26)
N = 100, T = 50	yes	47696	0.15 (0.06) (0.05, 0.24)	0.15 (0.06) (0.05, 0.24)	0.72 (0.50, 0.73)	0.28 (0.27, 0.50)	2.52 (1.00, 2.74)
N = 100, T = 75	no	4784	0.15 (0.11) (-0.00, 0.31)	0.16 (0.11) (-0.01, 0.32)	0.40 (0.00, 0.50)	0.60 (0.50, 1.00)	1.52 (1.00, 918.53)
N = 100, T = 75	yes	45216	0.15 (0.06) (0.04, 0.25)	0.15 (0.06) (0.04, 0.25)	0.71 (0.50, 0.73)	0.29 (0.27, 0.50)	2.46 (1.00, 2.74)
N = 100, T = 100	no	7185	0.15 (0.11) (-0.01, 0.31)	0.16 (0.11) (-0.01, 0.32)	0.37 (0.00, 0.50)	0.63 (0.50, 1.00)	1.70 (1.00, 7.81e+04)
N = 100, T = 100	yes	42815	0.15 (0.07) (0.04, 0.25)	0.15 (0.07) (0.04, 0.25)	0.71 (0.50, 0.73)	0.29 (0.27, 0.50)	2.41 (1.00, 2.74)
N = 150, T = 25	no	695	0.15 (0.12) (-0.00, 0.33)	0.18 (0.12) (0.00, 0.34)	0.44 (0.04, 0.50)	0.56 (0.50, 0.96)	1.25 (1.00, 24.68)
N = 150, T = 25	yes	74305	0.15 (0.05) (0.06, 0.23)	0.15 (0.05) (0.06, 0.23)	0.72 (0.50, 0.73)	0.28 (0.27, 0.50)	2.61 (1.00, 2.74)
N = 150, T = 50	no	3339	0.16 (0.11) (-0.00, 0.31)	0.15 (0.11) (-0.01, 0.31)	0.42 (0.01, 0.50)	0.58 (0.50, 0.99)	1.38 (1.00, 172.32)
N = 150, T = 50	yes	71661	0.15 (0.06) (0.05, 0.24)	0.15 (0.06) (0.05, 0.24)	0.72 (0.50, 0.73)	0.28 (0.27, 0.50)	2.52 (1.00, 2.74)
N = 150, T = 75	no	7124	0.15 (0.11) (-0.01, 0.31)	0.15 (0.11) (-0.00, 0.31)	0.40 (0.00, 0.50)	0.60 (0.50, 1.00)	1.53 (1.00, 3206.31)
N = 150, T = 75	yes	67876	0.15 (0.06) (0.05, 0.25)	0.15 (0.06) (0.05, 0.25)	0.71 (0.50, 0.73)	0.29 (0.27, 0.50)	2.46 (1.00, 2.74)
N = 150, T = 100	no	10894	0.16 (0.10) (-0.00, 0.31)	0.15 (0.11) (-0.01, 0.31)	0.37 (0.00, 0.50)	0.63 (0.50, 1.00)	1.74 (1.00, 5.12e+04)
N = 150, T = 100	yes	64106	0.15 (0.06) (0.04, 0.25)	0.15 (0.07) (0.04, 0.25)	0.71 (0.50, 0.73)	0.29 (0.27, 0.50)	2.42 (1.00, 2.74)

D Within Person: Subset Analysis Tables

D1 $\phi_{12} = 0.20, \phi_{21} = 0.10$

Table D1: Subset Statistical Results – Pooled Within-Subject Level for H_1 where parameter ordering is in agreement with the population parameters.

	Support		ϕ_{12}		ϕ_{21}		w_{H1}		w_{H1c}		ratio ww'	
Condition	H_1	N_{pooled}	Mean (SD)	(min, max)	Mean (SD)	(min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	61	0.08 (0.07)	(-0.02, 0.21)	-0.13 (0.07)	(-0.26, -0.04)	0.50	(0.38, 0.50)	0.50	(0.50, 0.62)	1.01	(1.00, 1.60)
N = 50, T = 25	yes	20960	0.21 (0.06)	(0.12, 0.30)	0.09 (0.06)	(-0.02, 0.18)	0.57	(0.50, 1.00)	0.43	(0.00, 0.50)	1.35	(1.00, 253.98)
N = 50, T = 50	no	56	0.07 (0.07)	(-0.02, 0.19)	-0.12 (0.07)	(-0.24, -0.02)	0.49	(0.20, 0.50)	0.51	(0.50, 0.80)	1.03	(1.00, 4.08)
N = 50, T = 50	yes	21140	0.21 (0.06)	(0.12, 0.31)	0.09 (0.06)	(-0.02, 0.19)	0.62	(0.50, 1.00)	0.38	(0.00, 0.50)	1.61	(1.00, 338.36)
N = 50, T = 75	no	67	0.05 (0.06)	(-0.03, 0.16)	-0.09 (0.06)	(-0.20, -0.02)	0.50	(0.33, 0.50)	0.50	(0.50, 0.67)	1.02	(1.00, 2.00)
N = 50, T = 75	yes	20756	0.21 (0.06)	(0.11, 0.31)	0.09 (0.07)	(-0.03, 0.19)	0.65	(0.50, 1.00)	0.35	(0.00, 0.50)	1.86	(1.00, 1.70e+04)
N = 50, T = 100	no	96	0.07 (0.05)	(-0.02, 0.17)	-0.10 (0.05)	(-0.19, -0.03)	0.49	(0.29, 0.50)	0.51	(0.50, 0.71)	1.02	(1.00, 2.46)
N = 50, T = 100	yes	20291	0.21 (0.06)	(0.11, 0.32)	0.08 (0.07)	(-0.04, 0.20)	0.67	(0.50, 1.00)	0.33	(0.00, 0.50)	2.01	(1.00, 5.13e+04)
N = 75, T = 25	no	41	0.09 (0.07)	(0.00, 0.20)	-0.12 (0.07)	(-0.26, -0.04)	0.50	(0.36, 0.50)	0.50	(0.50, 0.64)	1.01	(1.00, 1.75)
N = 75, T = 25	yes	32663	0.20 (0.05)	(0.12, 0.29)	0.09 (0.06)	(-0.01, 0.18)	0.58	(0.50, 1.00)	0.42	(0.00, 0.50)	1.36	(1.00, 255.99)
N = 75, T = 50	no	56	0.07 (0.07)	(-0.02, 0.18)	-0.12 (0.07)	(-0.24, -0.03)	0.49	(0.11, 0.50)	0.51	(0.50, 0.89)	1.03	(1.00, 7.90)
N = 75, T = 50	yes	32188	0.20 (0.05)	(0.12, 0.30)	0.09 (0.06)	(-0.02, 0.18)	0.61	(0.50, 1.00)	0.39	(0.00, 0.50)	1.59	(1.00, 694.65)
N = 75, T = 75	no	87	0.07 (0.05)	(0.00, 0.16)	-0.10 (0.05)	(-0.18, -0.02)	0.50	(0.28, 0.50)	0.50	(0.50, 0.72)	1.01	(1.00, 2.55)
N = 75, T = 75	yes	31093	0.21 (0.06)	(0.11, 0.31)	0.09 (0.07)	(-0.03, 0.19)	0.64	(0.50, 1.00)	0.36	(0.00, 0.50)	1.80	(1.00, 6092.91)
N = 75, T = 100	no	103	0.06 (0.06)	(-0.01, 0.17)	-0.10 (0.06)	(-0.20, -0.02)	0.49	(0.26, 0.50)	0.51	(0.50, 0.74)	1.02	(1.00, 2.79)
N = 75, T = 100	yes	30770	0.21 (0.06)	(0.11, 0.31)	0.09 (0.07)	(-0.03, 0.19)	0.67	(0.50, 1.00)	0.33	(0.00, 0.50)	2.07	(1.00, 2.30e+05)
N = 100, T = 25	no	31	0.07 (0.07)	(0.01, 0.20)	-0.11 (0.07)	(-0.23, -0.03)	0.49	(0.45, 0.50)	0.51	(0.50, 0.55)	1.02	(1.00, 1.23)
N = 100, T = 25	yes	44273	0.20 (0.05)	(0.13, 0.28)	0.09 (0.05)	(-0.00, 0.17)	0.58	(0.50, 1.00)	0.42	(0.00, 0.50)	1.39	(1.00, 362.36)
N = 100, T = 50	no	55	0.07 (0.06)	(-0.02, 0.18)	-0.10 (0.06)	(-0.19, -0.02)	0.49	(0.42, 0.50)	0.51	(0.50, 0.58)	1.02	(1.00, 1.39)
N = 100, T = 50	yes	42924	0.20 (0.05)	(0.12, 0.29)	0.09 (0.06)	(-0.01, 0.18)	0.62	(0.50, 1.00)	0.38	(0.00, 0.50)	1.60	(1.00, 2417.66)
N = 100, T = 75	no	94	0.06 (0.05)	(-0.00, 0.15)	-0.09 (0.05)	(-0.18, -0.02)	0.49	(0.33, 0.50)	0.51	(0.50, 0.67)	1.02	(1.00, 2.06)
N = 100, T = 75	yes	42017	0.21 (0.06)	(0.12, 0.30)	0.09 (0.06)	(-0.02, 0.19)	0.65	(0.50, 1.00)	0.35	(0.00, 0.50)	1.84	(1.00, 1.41e+04)
N = 100, T = 100	no	114	0.06 (0.05)	(-0.00, 0.16)	-0.10 (0.05)	(-0.18, -0.02)	0.49	(0.19, 0.50)	0.51	(0.50, 0.81)	1.02	(1.00, 4.25)
N = 100, T = 100	yes	40769	0.21 (0.06)	(0.11, 0.31)	0.08 (0.07)	(-0.04, 0.19)	0.67	(0.50, 1.00)	0.33	(0.00, 0.50)	2.02	(1.00, 9.28e+05)
N = 150, T = 25	no	33	0.09 (0.07)	(-0.01, 0.17)	-0.11 (0.08)	(-0.20, -0.02)	0.50	(0.11, 0.50)	0.50	(0.50, 0.89)	1.01	(1.00, 8.15)
N = 150, T = 25	yes	67476	0.20 (0.04)	(0.13, 0.28)	0.10 (0.05)	(0.01, 0.17)	0.58	(0.50, 0.99)	0.42	(0.01, 0.50)	1.39	(1.00, 101.02)
N = 150, T = 50	no	67	0.06 (0.06)	(-0.02, 0.14)	-0.09 (0.06)	(-0.19, -0.02)	0.50	(0.37, 0.50)	0.50	(0.50, 0.63)	1.01	(1.00, 1.72)
N = 150, T = 50	yes	65020	0.20 (0.05)	(0.12, 0.29)	0.09 (0.06)	(-0.01, 0.18)	0.62	(0.50, 1.00)	0.38	(0.00, 0.50)	1.61	(1.00, 1854.34)
N = 150, T = 75	no	117	0.06 (0.05)	(-0.01, 0.15)	-0.09 (0.05)	(-0.18, -0.03)	0.49	(0.30, 0.50)	0.51	(0.50, 0.70)	1.03	(1.00, 2.35)
N = 150, T = 75	yes	63022	0.21 (0.06)	(0.11, 0.30)	0.09 (0.06)	(-0.02, 0.19)	0.64	(0.50, 1.00)	0.36	(0.00, 0.50)	1.81	(1.00, 2.65e+04)
N = 150, T = 100	no	179	0.06 (0.06)	(-0.02, 0.16)	-0.10 (0.05)	(-0.19, -0.02)	0.49	(0.21, 0.50)	0.51	(0.50, 0.79)	1.04	(1.00, 3.73)
N = 150, T = 100	yes	61739	0.21 (0.06)	(0.11, 0.31)	0.09 (0.07)	(-0.03, 0.19)	0.67	(0.50, 1.00)	0.33	(0.00, 0.50)	2.04	(1.00, 1.21e+06)

Table D2: Subset Analysis Results - Pooled Within-Subject Level for Set 2 H_1 where parameters are in agreement with population parameter ordering.

			ϕ_{12}		ϕ_{21}		w_{H1}		w_{H1c}		ratio ww'	
Condition	Support H_1	N_{pooled}	Mean (SD)	(min, max)	Mean (SD)	(min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	14002	0.18 (0.05)	(0.11, 0.26)	0.10 (0.06)	(-0.01, 0.19)	0.30	(0.24, 0.38)	0.43	(0.38, 0.45)	1.42	(1.00, 1.65)
N = 50, T = 25	yes	7019	0.25 (0.05)	(0.18, 0.34)	0.06 (0.05)	(-0.02, 0.14)	0.47	(0.38, 0.99)	0.33	(0.01, 0.38)	1.40	(1.00, 154.05)
N = 50, T = 50	no	10926	0.18 (0.05)	(0.10, 0.26)	0.11 (0.06)	(-0.00, 0.20)	0.31	(0.15, 0.38)	0.43	(0.25, 0.45)	1.41	(1.00, 1.65)
N = 50, T = 50	yes	10270	0.24 (0.05)	(0.17, 0.33)	0.06 (0.05)	(-0.03, 0.15)	0.51	(0.38, 0.99)	0.30	(0.00, 0.38)	1.70	(1.00, 205.22)
N = 50, T = 75	no	9263	0.17 (0.05)	(0.09, 0.26)	0.11 (0.07)	(-0.02, 0.21)	0.31	(0.22, 0.38)	0.43	(0.35, 0.45)	1.41	(1.00, 1.65)
N = 50, T = 75	yes	11560	0.24 (0.05)	(0.16, 0.33)	0.06 (0.06)	(-0.04, 0.15)	0.56	(0.38, 1.00)	0.27	(0.00, 0.38)	2.06	(1.00, 1.03e+04)
N = 50, T = 100	no	8520	0.17 (0.06)	(0.08, 0.26)	0.11 (0.07)	(-0.03, 0.22)	0.31	(0.20, 0.38)	0.43	(0.32, 0.45)	1.42	(1.00, 1.65)
N = 50, T = 100	yes	11867	0.24 (0.06)	(0.15, 0.33)	0.06 (0.06)	(-0.04, 0.16)	0.60	(0.38, 1.00)	0.25	(0.00, 0.38)	2.39	(1.00, 3.11e+04)
N = 75, T = 25	no	21544	0.18 (0.04)	(0.11, 0.25)	0.11 (0.06)	(0.02, 0.19)	0.31	(0.23, 0.38)	0.43	(0.38, 0.45)	1.40	(1.00, 1.65)
N = 75, T = 25	yes	11160	0.24 (0.04)	(0.18, 0.32)	0.06 (0.05)	(-0.02, 0.14)	0.46	(0.38, 0.99)	0.34	(0.01, 0.38)	1.38	(1.00, 155.27)
N = 75, T = 50	no	16845	0.18 (0.05)	(0.10, 0.25)	0.11 (0.06)	(0.01, 0.20)	0.31	(0.09, 0.38)	0.43	(0.16, 0.45)	1.40	(1.00, 1.65)
N = 75, T = 50	yes	15399	0.23 (0.05)	(0.16, 0.32)	0.06 (0.05)	(-0.03, 0.15)	0.51	(0.38, 1.00)	0.30	(0.00, 0.38)	1.69	(1.00, 421.33)
N = 75, T = 75	no	14296	0.17 (0.05)	(0.09, 0.26)	0.12 (0.07)	(-0.00, 0.21)	0.31	(0.19, 0.38)	0.43	(0.32, 0.45)	1.41	(1.00, 1.65)
N = 75, T = 75	yes	16884	0.23 (0.05)	(0.16, 0.32)	0.06 (0.06)	(-0.03, 0.16)	0.56	(0.38, 1.00)	0.27	(0.00, 0.38)	2.04	(1.00, 3695.54)
N = 75, T = 100	no	12366	0.17 (0.05)	(0.09, 0.26)	0.12 (0.07)	(-0.02, 0.21)	0.31	(0.18, 0.38)	0.43	(0.30, 0.45)	1.42	(1.00, 1.65)
N = 75, T = 100	yes	18507	0.23 (0.05)	(0.15, 0.33)	0.06 (0.06)	(-0.04, 0.16)	0.60	(0.38, 1.00)	0.25	(0.00, 0.38)	2.39	(1.00, 1.39e+05)
N = 100, T = 25	no	28619	0.18 (0.04)	(0.12, 0.25)	0.11 (0.05)	(0.03, 0.18)	0.31	(0.26, 0.38)	0.43	(0.38, 0.45)	1.39	(1.00, 1.65)
N = 100, T = 25	yes	15685	0.24 (0.04)	(0.18, 0.31)	0.06 (0.05)	(-0.02, 0.13)	0.46	(0.38, 0.99)	0.34	(0.00, 0.38)	1.38	(1.00, 219.78)
N = 100, T = 50	no	22300	0.18 (0.05)	(0.10, 0.25)	0.11 (0.06)	(0.02, 0.20)	0.31	(0.25, 0.38)	0.43	(0.38, 0.45)	1.40	(1.00, 1.65)
N = 100, T = 50	yes	20679	0.23 (0.05)	(0.16, 0.31)	0.06 (0.05)	(-0.03, 0.14)	0.51	(0.38, 1.00)	0.30	(0.00, 0.38)	1.68	(1.00, 1466.39)
N = 100, T = 75	no	18812	0.18 (0.05)	(0.09, 0.26)	0.12 (0.06)	(0.01, 0.21)	0.31	(0.21, 0.38)	0.43	(0.35, 0.45)	1.41	(1.00, 1.65)
N = 100, T = 75	yes	23299	0.23 (0.05)	(0.16, 0.32)	0.06 (0.06)	(-0.03, 0.15)	0.56	(0.38, 1.00)	0.27	(0.00, 0.38)	2.04	(1.00, 8529.45)
N = 100, T = 100	no	16918	0.17 (0.05)	(0.08, 0.26)	0.11 (0.07)	(-0.02, 0.22)	0.30	(0.14, 0.38)	0.43	(0.24, 0.45)	1.42	(1.00, 1.65)
N = 100, T = 100	yes	23965	0.23 (0.05)	(0.15, 0.33)	0.06 (0.06)	(-0.04, 0.16)	0.60	(0.38, 1.00)	0.25	(0.00, 0.38)	2.41	(1.00, 5.63e+05)
N = 150, T = 25	no	43567	0.18 (0.04)	(0.12, 0.25)	0.11 (0.05)	(0.04, 0.18)	0.31	(0.09, 0.38)	0.43	(0.15, 0.45)	1.39	(1.00, 1.65)
N = 150, T = 25	yes	23942	0.23 (0.04)	(0.18, 0.30)	0.06 (0.04)	(-0.01, 0.13)	0.46	(0.38, 0.97)	0.34	(0.02, 0.38)	1.37	(1.00, 61.27)
N = 150, T = 50	no	33510	0.18 (0.04)	(0.11, 0.25)	0.12 (0.05)	(0.03, 0.20)	0.31	(0.23, 0.38)	0.43	(0.38, 0.45)	1.40	(1.00, 1.65)
N = 150, T = 50	yes	31577	0.23 (0.04)	(0.16, 0.31)	0.06 (0.05)	(-0.02, 0.14)	0.52	(0.38, 1.00)	0.30	(0.00, 0.38)	1.71	(1.00, 1124.71)
N = 150, T = 75	no	28608	0.17 (0.05)	(0.09, 0.26)	0.12 (0.06)	(0.01, 0.21)	0.31	(0.20, 0.38)	0.43	(0.33, 0.45)	1.41	(1.00, 1.65)
N = 150, T = 75	yes	34531	0.23 (0.05)	(0.15, 0.32)	0.06 (0.06)	(-0.03, 0.15)	0.56	(0.38, 1.00)	0.28	(0.00, 0.38)	2.03	(1.00, 1.61e+04)
N = 150, T = 100	no	25386	0.17 (0.05)	(0.09, 0.26)	0.12 (0.07)	(-0.01, 0.21)	0.31	(0.16, 0.38)	0.43	(0.26, 0.45)	1.42	(1.00, 1.65)
N = 150, T = 100	yes	36532	0.23 (0.05)	(0.15, 0.32)	0.06 (0.06)	(-0.04, 0.16)	0.60	(0.38, 1.00)	0.25	(0.00, 0.38)	2.37	(1.00, 7.32e+05)

Table D3: Subset Analysis Results – Pooled Within-Subject Level for H_{a1c} where parameters are in agreement with population parameter ordering

			ϕ_{12}		ϕ_{21}		w_{Ha1c}		w_{Ha1}		ratio ww'	
Condition	Support H_{a1c}	N_{pooled}	Mean (SD)	(min, max)	Mean (SD)	(min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	20412	0.20 (0.05)	(0.12, 0.29)	0.09 (0.06)	(-0.02, 0.18)	0.28	(0.25, 0.50)	0.72	(0.50, 0.75)	2.53	(1.00, 3.00)
N = 50, T = 25	yes	609	0.32 (0.05)	(0.25, 0.40)	0.04 (0.05)	(-0.02, 0.12)	0.56	(0.50, 0.97)	0.44	(0.03, 0.50)	1.29	(1.00, 31.64)
N = 50, T = 50	no	19383	0.20 (0.05)	(0.12, 0.29)	0.09 (0.06)	(-0.02, 0.19)	0.29	(0.22, 0.50)	0.71	(0.50, 0.78)	2.46	(1.00, 3.47)
N = 50, T = 50	yes	1813	0.29 (0.04)	(0.23, 0.37)	0.04 (0.05)	(-0.03, 0.12)	0.59	(0.50, 0.96)	0.41	(0.04, 0.50)	1.43	(1.00, 26.63)
N = 50, T = 75	no	17792	0.20 (0.05)	(0.11, 0.28)	0.09 (0.07)	(-0.03, 0.19)	0.29	(0.23, 0.50)	0.71	(0.50, 0.77)	2.44	(1.00, 3.26)
N = 50, T = 75	yes	3031	0.28 (0.05)	(0.22, 0.36)	0.04 (0.05)	(-0.04, 0.13)	0.62	(0.50, 1.00)	0.38	(0.00, 0.50)	1.62	(1.00, 537.70)
N = 50, T = 100	no	16611	0.19 (0.06)	(0.10, 0.29)	0.09 (0.07)	(-0.04, 0.20)	0.29	(0.23, 0.50)	0.71	(0.50, 0.77)	2.47	(1.00, 3.36)
N = 50, T = 100	yes	3776	0.28 (0.05)	(0.21, 0.36)	0.04 (0.05)	(-0.04, 0.13)	0.65	(0.50, 1.00)	0.35	(0.00, 0.50)	1.88	(1.00, 1537.52)
N = 75, T = 25	no	31882	0.20 (0.05)	(0.12, 0.28)	0.09 (0.06)	(-0.01, 0.18)	0.28	(0.24, 0.50)	0.72	(0.50, 0.76)	2.53	(1.00, 3.14)
N = 75, T = 25	yes	822	0.31 (0.04)	(0.25, 0.39)	0.04 (0.04)	(-0.02, 0.11)	0.56	(0.50, 0.96)	0.44	(0.04, 0.50)	1.26	(1.00, 21.56)
N = 75, T = 50	no	29590	0.20 (0.05)	(0.11, 0.28)	0.09 (0.06)	(-0.02, 0.19)	0.29	(0.24, 0.50)	0.71	(0.50, 0.76)	2.47	(1.00, 3.23)
N = 75, T = 50	yes	2654	0.28 (0.04)	(0.23, 0.36)	0.04 (0.05)	(-0.03, 0.11)	0.59	(0.50, 0.98)	0.41	(0.02, 0.50)	1.42	(1.00, 51.57)
N = 75, T = 75	no	26798	0.20 (0.05)	(0.11, 0.28)	0.09 (0.07)	(-0.03, 0.19)	0.29	(0.23, 0.50)	0.71	(0.50, 0.77)	2.47	(1.00, 3.30)
N = 75, T = 75	yes	4382	0.28 (0.04)	(0.21, 0.35)	0.04 (0.05)	(-0.03, 0.12)	0.61	(0.50, 1.00)	0.39	(0.00, 0.50)	1.59	(1.00, 243.21)
N = 75, T = 100	no	25050	0.19 (0.05)	(0.10, 0.28)	0.09 (0.07)	(-0.04, 0.20)	0.29	(0.23, 0.50)	0.71	(0.50, 0.77)	2.45	(1.00, 3.34)
N = 75, T = 100	yes	5823	0.27 (0.05)	(0.21, 0.36)	0.04 (0.05)	(-0.04, 0.13)	0.65	(0.50, 1.00)	0.35	(0.00, 0.50)	1.85	(1.00, 4912.01)
N = 100, T = 25	no	43162	0.20 (0.05)	(0.13, 0.28)	0.09 (0.05)	(0.00, 0.18)	0.28	(0.25, 0.50)	0.72	(0.50, 0.75)	2.52	(1.00, 3.07)
N = 100, T = 25	yes	1142	0.30 (0.04)	(0.24, 0.38)	0.04 (0.04)	(-0.02, 0.10)	0.56	(0.50, 0.97)	0.44	(0.03, 0.50)	1.28	(1.00, 33.79)
N = 100, T = 50	no	39429	0.20 (0.05)	(0.12, 0.28)	0.09 (0.06)	(-0.01, 0.18)	0.29	(0.24, 0.50)	0.71	(0.50, 0.76)	2.48	(1.00, 3.20)
N = 100, T = 50	yes	3550	0.28 (0.04)	(0.22, 0.36)	0.04 (0.04)	(-0.03, 0.12)	0.58	(0.50, 0.99)	0.42	(0.01, 0.50)	1.40	(1.00, 124.28)
N = 100, T = 75	no	36113	0.20 (0.05)	(0.11, 0.28)	0.09 (0.06)	(-0.02, 0.19)	0.29	(0.23, 0.50)	0.71	(0.50, 0.77)	2.45	(1.00, 3.40)
N = 100, T = 75	yes	5998	0.27 (0.04)	(0.21, 0.35)	0.04 (0.05)	(-0.03, 0.12)	0.62	(0.50, 1.00)	0.38	(0.00, 0.50)	1.62	(1.00, 518.00)
N = 100, T = 100	no	33213	0.19 (0.05)	(0.10, 0.28)	0.09 (0.07)	(-0.04, 0.20)	0.29	(0.23, 0.50)	0.71	(0.50, 0.77)	2.47	(1.00, 3.34)
N = 100, T = 100	yes	7670	0.27 (0.05)	(0.21, 0.35)	0.04 (0.05)	(-0.04, 0.13)	0.64	(0.50, 1.00)	0.36	(0.00, 0.50)	1.82	(1.00, 1.50e+04)
N = 150, T = 25	no	66015	0.20 (0.04)	(0.13, 0.27)	0.10 (0.05)	(0.01, 0.17)	0.28	(0.24, 0.50)	0.72	(0.50, 0.76)	2.53	(1.00, 3.22)
N = 150, T = 25	yes	1494	0.29 (0.04)	(0.24, 0.37)	0.04 (0.04)	(-0.02, 0.11)	0.55	(0.50, 0.91)	0.45	(0.09, 0.50)	1.23	(1.00, 10.11)
N = 150, T = 50	no	59608	0.20 (0.05)	(0.12, 0.27)	0.10 (0.06)	(-0.01, 0.18)	0.29	(0.24, 0.50)	0.71	(0.50, 0.76)	2.47	(1.00, 3.18)
N = 150, T = 50	yes	5479	0.28 (0.04)	(0.22, 0.35)	0.04 (0.04)	(-0.03, 0.11)	0.58	(0.50, 0.99)	0.42	(0.01, 0.50)	1.40	(1.00, 109.52)
N = 150, T = 75	no	54359	0.19 (0.05)	(0.11, 0.28)	0.09 (0.06)	(-0.02, 0.19)	0.29	(0.23, 0.50)	0.71	(0.50, 0.77)	2.46	(1.00, 3.32)
N = 150, T = 75	yes	8780	0.27 (0.04)	(0.21, 0.35)	0.04 (0.05)	(-0.04, 0.12)	0.62	(0.50, 1.00)	0.38	(0.00, 0.50)	1.61	(1.00, 822.77)
N = 150, T = 100	no	50511	0.19 (0.05)	(0.10, 0.28)	0.10 (0.07)	(-0.03, 0.20)	0.29	(0.23, 0.50)	0.71	(0.50, 0.77)	2.46	(1.00, 3.38)
N = 150, T = 100	yes	11407	0.27 (0.04)	(0.21, 0.35)	0.04 (0.05)	(-0.04, 0.12)	0.65	(0.50, 1.00)	0.35	(0.00, 0.50)	1.83	(1.00, 2.44e+04)

Table D4: Subset Analysis Results – Pooled Within-Subject Level for H_{a2c} where parameters are in agreement with population parameter ordering

			ϕ_{12}		ϕ_{21}		w_{Ha2c}		w_{Ha2}		ratio ww'	
Condition	Support H_{a2c}	N_{pooled}	Mean (SD)	(min, max)	Mean (SD)	(min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	19082	0.20 (0.05)	(0.12, 0.28)	0.09 (0.06)	(-0.02, 0.19)	0.31	(0.27, 0.50)	0.69	(0.50, 0.73)	2.23	(1.00, 2.73)
N = 50, T = 25	yes	1939	0.28 (0.05)	(0.22, 0.37)	0.05 (0.05)	(-0.02, 0.13)	0.57	(0.50, 0.99)	0.43	(0.01, 0.50)	1.34	(1.00, 74.54)
N = 50, T = 50	no	16769	0.19 (0.05)	(0.11, 0.27)	0.10 (0.06)	(-0.02, 0.19)	0.32	(0.27, 0.50)	0.68	(0.50, 0.73)	2.11	(1.00, 2.74)
N = 50, T = 50	yes	4427	0.26 (0.05)	(0.20, 0.35)	0.05 (0.05)	(-0.03, 0.13)	0.61	(0.50, 0.99)	0.39	(0.01, 0.50)	1.59	(1.00, 89.73)
N = 50, T = 75	no	14620	0.19 (0.05)	(0.10, 0.27)	0.10 (0.07)	(-0.03, 0.20)	0.32	(0.27, 0.50)	0.68	(0.50, 0.73)	2.10	(1.00, 2.74)
N = 50, T = 75	yes	6203	0.26 (0.05)	(0.19, 0.34)	0.05 (0.05)	(-0.04, 0.14)	0.65	(0.50, 1.00)	0.35	(0.00, 0.50)	1.89	(1.00, 3717.67)
N = 50, T = 100	no	13366	0.18 (0.05)	(0.10, 0.28)	0.10 (0.07)	(-0.04, 0.21)	0.32	(0.27, 0.50)	0.68	(0.50, 0.73)	2.12	(1.00, 2.74)
N = 50, T = 100	yes	7021	0.26 (0.05)	(0.18, 0.35)	0.05 (0.06)	(-0.04, 0.15)	0.69	(0.50, 1.00)	0.31	(0.00, 0.50)	2.21	(1.00, 1.11e+04)
N = 75, T = 25	no	29880	0.20 (0.05)	(0.12, 0.27)	0.10 (0.06)	(-0.01, 0.18)	0.31	(0.27, 0.50)	0.69	(0.50, 0.73)	2.20	(1.00, 2.73)
N = 75, T = 25	yes	2824	0.27 (0.04)	(0.21, 0.35)	0.05 (0.04)	(-0.02, 0.12)	0.57	(0.50, 0.99)	0.43	(0.01, 0.50)	1.31	(1.00, 68.86)
N = 75, T = 50	no	25633	0.19 (0.05)	(0.11, 0.27)	0.10 (0.06)	(-0.01, 0.19)	0.32	(0.27, 0.50)	0.68	(0.50, 0.73)	2.11	(1.00, 2.73)
N = 75, T = 50	yes	6611	0.26 (0.04)	(0.20, 0.34)	0.05 (0.05)	(-0.03, 0.13)	0.61	(0.50, 0.99)	0.39	(0.01, 0.50)	1.56	(1.00, 182.25)
N = 75, T = 75	no	22172	0.19 (0.05)	(0.10, 0.27)	0.10 (0.07)	(-0.02, 0.20)	0.32	(0.27, 0.50)	0.68	(0.50, 0.73)	2.12	(1.00, 2.74)
N = 75, T = 75	yes	9008	0.25 (0.05)	(0.19, 0.34)	0.05 (0.05)	(-0.03, 0.14)	0.65	(0.50, 1.00)	0.35	(0.00, 0.50)	1.89	(1.00, 1400.53)
N = 75, T = 100	no	19954	0.19 (0.05)	(0.10, 0.27)	0.10 (0.07)	(-0.03, 0.21)	0.32	(0.27, 0.50)	0.68	(0.50, 0.73)	2.10	(1.00, 2.74)
N = 75, T = 100	yes	10919	0.25 (0.05)	(0.18, 0.34)	0.05 (0.06)	(-0.04, 0.14)	0.69	(0.50, 1.00)	0.31	(0.00, 0.50)	2.22	(1.00, 4.65e+04)
N = 100, T = 25	no	40266	0.20 (0.04)	(0.12, 0.27)	0.10 (0.05)	(0.01, 0.18)	0.32	(0.27, 0.50)	0.68	(0.50, 0.73)	2.17	(1.00, 2.73)
N = 100, T = 25	yes	4038	0.27 (0.04)	(0.21, 0.35)	0.05 (0.04)	(-0.02, 0.12)	0.57	(0.50, 0.99)	0.43	(0.01, 0.50)	1.35	(1.00, 99.20)
N = 100, T = 50	no	34159	0.19 (0.05)	(0.11, 0.27)	0.10 (0.06)	(-0.01, 0.19)	0.32	(0.27, 0.50)	0.68	(0.50, 0.73)	2.11	(1.00, 2.73)
N = 100, T = 50	yes	8820	0.26 (0.04)	(0.20, 0.33)	0.05 (0.05)	(-0.03, 0.13)	0.62	(0.50, 1.00)	0.38	(0.00, 0.50)	1.60	(1.00, 586.44)
N = 100, T = 75	no	29729	0.19 (0.05)	(0.11, 0.27)	0.10 (0.06)	(-0.01, 0.20)	0.32	(0.27, 0.50)	0.68	(0.50, 0.73)	2.10	(1.00, 2.74)
N = 100, T = 75	yes	12382	0.25 (0.05)	(0.19, 0.33)	0.05 (0.05)	(-0.03, 0.13)	0.65	(0.50, 1.00)	0.35	(0.00, 0.50)	1.89	(1.00, 3183.32)
N = 100, T = 100	no	26674	0.18 (0.05)	(0.10, 0.27)	0.10 (0.07)	(-0.03, 0.21)	0.32	(0.27, 0.50)	0.68	(0.50, 0.73)	2.11	(1.00, 2.74)
N = 100, T = 100	yes	14209	0.25 (0.05)	(0.18, 0.34)	0.05 (0.06)	(-0.04, 0.14)	0.69	(0.50, 1.00)	0.31	(0.00, 0.50)	2.24	(1.00, 1.77e+05)
N = 150, T = 25	no	61666	0.20 (0.04)	(0.13, 0.26)	0.10 (0.05)	(0.02, 0.18)	0.32	(0.27, 0.50)	0.68	(0.50, 0.73)	2.17	(1.00, 2.73)
N = 150, T = 25	yes	5843	0.26 (0.04)	(0.21, 0.33)	0.05 (0.04)	(-0.02, 0.12)	0.56	(0.50, 0.97)	0.44	(0.03, 0.50)	1.30	(1.00, 28.15)
N = 150, T = 50	no	51376	0.19 (0.05)	(0.12, 0.27)	0.10 (0.06)	(0.01, 0.19)	0.32	(0.27, 0.50)	0.68	(0.50, 0.73)	2.11	(1.00, 2.73)
N = 150, T = 50	yes	13711	0.25 (0.04)	(0.19, 0.33)	0.05 (0.05)	(-0.03, 0.12)	0.61	(0.50, 0.99)	0.39	(0.00, 0.50)	1.59	(1.00, 463.64)
N = 150, T = 75	no	44872	0.19 (0.05)	(0.10, 0.27)	0.10 (0.06)	(-0.01, 0.20)	0.32	(0.27, 0.50)	0.68	(0.50, 0.73)	2.11	(1.00, 2.74)
N = 150, T = 75	yes	18267	0.25 (0.04)	(0.18, 0.33)	0.05 (0.05)	(-0.03, 0.14)	0.65	(0.50, 1.00)	0.35	(0.00, 0.50)	1.88	(1.00, 5784.67)
N = 150, T = 100	no	40306	0.18 (0.05)	(0.10, 0.27)	0.10 (0.07)	(-0.02, 0.21)	0.32	(0.27, 0.50)	0.68	(0.50, 0.73)	2.11	(1.00, 2.74)
N = 150, T = 100	yes	21612	0.25 (0.05)	(0.18, 0.33)	0.05 (0.06)	(-0.04, 0.14)	0.69	(0.50, 1.00)	0.31	(0.00, 0.50)	2.19	(1.00, 2.42e+05)

D2 $\phi_{12} = 0.20, \phi_{21} = 0.15$

Table D5: Subset Analysis Results – Pooled Within-Subject Level for H_1 where parameters are in agreement with population parameter ordering

			ϕ_{12}		ϕ_{21}		w_{H1}		w_{H1c}		ratio ww'	
Condition	Support H_1	N_{pooled}	Mean (SD)	(min, max)	Mean (SD)	(min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	19	0.06 (0.06)	(-0.00, 0.15)	-0.10 (0.10)	(-0.30, -0.01)	0.50	(0.11, 0.50)	0.50	(0.50, 0.89)	1.00	(1.00, 7.84)
N = 50, T = 25	yes	17343	0.22 (0.05)	(0.13, 0.31)	0.13 (0.06)	(0.02, 0.22)	0.54	(0.50, 0.98)	0.46	(0.02, 0.50)	1.18	(1.00, 60.79)
N = 50, T = 50	no	12	0.04 (0.07)	(-0.01, 0.14)	-0.09 (0.07)	(-0.23, -0.01)	0.49	(0.25, 0.50)	0.51	(0.50, 0.75)	1.04	(1.00, 3.02)
N = 50, T = 50	yes	17340	0.22 (0.05)	(0.13, 0.31)	0.13 (0.06)	(0.02, 0.22)	0.56	(0.50, 1.00)	0.44	(0.00, 0.50)	1.29	(1.00, 428.11)
N = 50, T = 75	no	19	0.07 (0.06)	(0.01, 0.16)	-0.09 (0.05)	(-0.18, -0.04)	0.50	(0.36, 0.50)	0.50	(0.50, 0.64)	1.01	(1.00, 1.76)
N = 50, T = 75	yes	17256	0.22 (0.06)	(0.13, 0.32)	0.12 (0.06)	(0.01, 0.22)	0.59	(0.50, 1.00)	0.41	(0.00, 0.50)	1.42	(1.00, 8333.23)
N = 50, T = 100	no	25	0.06 (0.05)	(-0.01, 0.13)	-0.09 (0.06)	(-0.18, -0.02)	0.50	(0.29, 0.50)	0.50	(0.50, 0.71)	1.01	(1.00, 2.48)
N = 50, T = 100	yes	16809	0.22 (0.06)	(0.12, 0.33)	0.12 (0.07)	(0.01, 0.23)	0.61	(0.50, 1.00)	0.39	(0.00, 0.50)	1.56	(1.00, 2.84e+05)
N = 75, T = 25	no	6	0.15 (0.05)	(0.08, 0.20)	-0.18 (0.03)	(-0.22, -0.15)	0.50	(0.47, 0.50)	0.50	(0.50, 0.53)	1.01	(1.00, 1.12)
N = 75, T = 25	yes	27074	0.21 (0.05)	(0.14, 0.30)	0.13 (0.05)	(0.04, 0.21)	0.54	(0.50, 0.98)	0.46	(0.02, 0.50)	1.18	(1.00, 56.52)
N = 75, T = 50	no	6	0.11 (0.04)	(0.05, 0.16)	-0.14 (0.03)	(-0.18, -0.11)	0.50	(0.45, 0.50)	0.50	(0.50, 0.55)	1.01	(1.00, 1.21)
N = 75, T = 50	yes	26456	0.22 (0.05)	(0.14, 0.31)	0.13 (0.06)	(0.03, 0.22)	0.56	(0.50, 1.00)	0.44	(0.00, 0.50)	1.29	(1.00, 255.23)
N = 75, T = 75	no	20	0.08 (0.06)	(-0.01, 0.17)	-0.10 (0.06)	(-0.20, -0.03)	0.50	(0.37, 0.50)	0.50	(0.50, 0.63)	1.01	(1.00, 1.69)
N = 75, T = 75	yes	25751	0.22 (0.06)	(0.13, 0.31)	0.13 (0.06)	(0.02, 0.22)	0.59	(0.50, 1.00)	0.41	(0.00, 0.50)	1.42	(1.00, 5.49e+04)
N = 75, T = 100	no	17	0.06 (0.05)	(-0.01, 0.12)	-0.09 (0.05)	(-0.17, -0.03)	0.49	(0.46, 0.50)	0.51	(0.50, 0.54)	1.02	(1.00, 1.18)
N = 75, T = 100	yes	25774	0.22 (0.06)	(0.13, 0.32)	0.12 (0.07)	(0.01, 0.23)	0.61	(0.50, 1.00)	0.39	(0.00, 0.50)	1.56	(1.00, 2.16e+04)
N = 100, T = 25	no	3	0.11 (0.05)	(0.07, 0.17)	-0.13 (0.07)	(-0.21, -0.08)	0.50	(0.49, 0.50)	0.50	(0.50, 0.51)	1.00	(1.00, 1.05)
N = 100, T = 25	yes	36212	0.21 (0.05)	(0.14, 0.29)	0.14 (0.05)	(0.04, 0.21)	0.54	(0.50, 0.99)	0.46	(0.01, 0.50)	1.17	(1.00, 186.57)
N = 100, T = 50	no	4	0.06 (0.01)	(0.05, 0.07)	-0.09 (0.05)	(-0.15, -0.06)	0.50	(0.41, 0.50)	0.50	(0.50, 0.59)	1.00	(1.00, 1.46)
N = 100, T = 50	yes	35378	0.21 (0.05)	(0.14, 0.30)	0.13 (0.06)	(0.03, 0.22)	0.56	(0.50, 1.00)	0.44	(0.00, 0.50)	1.29	(1.00, 430.27)
N = 100, T = 75	no	10	0.03 (0.07)	(-0.06, 0.14)	-0.09 (0.06)	(-0.19, -0.03)	0.49	(0.28, 0.50)	0.51	(0.50, 0.72)	1.02	(1.00, 2.55)
N = 100, T = 75	yes	34493	0.22 (0.06)	(0.13, 0.31)	0.13 (0.06)	(0.02, 0.22)	0.59	(0.50, 1.00)	0.41	(0.00, 0.50)	1.42	(1.00, 2.22e+05)
N = 100, T = 100	no	33	0.04 (0.04)	(-0.01, 0.11)	-0.07 (0.05)	(-0.15, -0.01)	0.49	(0.34, 0.50)	0.51	(0.50, 0.66)	1.03	(1.00, 1.91)
N = 100, T = 100	yes	33703	0.22 (0.06)	(0.13, 0.32)	0.12 (0.07)	(0.01, 0.23)	0.61	(0.50, 1.00)	0.39	(0.00, 0.50)	1.55	(1.00, 3.64e+04)
N = 150, T = 25	no	5	0.02 (0.06)	(-0.05, 0.09)	-0.07 (0.03)	(-0.10, -0.03)	0.50	(0.49, 0.50)	0.50	(0.50, 0.51)	1.02	(1.00, 1.04)
N = 150, T = 25	yes	56388	0.21 (0.04)	(0.15, 0.28)	0.14 (0.05)	(0.05, 0.21)	0.54	(0.50, 0.99)	0.46	(0.01, 0.50)	1.17	(1.00, 167.67)
N = 150, T = 50	no	12	0.04 (0.03)	(-0.00, 0.07)	-0.06 (0.03)	(-0.09, -0.02)	0.50	(0.45, 0.50)	0.50	(0.50, 0.55)	1.01	(1.00, 1.24)
N = 150, T = 50	yes	53902	0.21 (0.05)	(0.14, 0.30)	0.13 (0.06)	(0.03, 0.22)	0.56	(0.50, 1.00)	0.44	(0.00, 0.50)	1.28	(1.00, 1182.35)
N = 150, T = 75	no	25	0.05 (0.03)	(0.00, 0.09)	-0.08 (0.04)	(-0.16, -0.03)	0.49	(0.38, 0.50)	0.51	(0.50, 0.62)	1.03	(1.00, 1.63)
N = 150, T = 75	yes	52133	0.22 (0.06)	(0.13, 0.31)	0.13 (0.06)	(0.02, 0.23)	0.58	(0.50, 1.00)	0.42	(0.00, 0.50)	1.41	(1.00, 3534.95)
N = 150, T = 100	no	42	0.04 (0.05)	(-0.02, 0.14)	-0.07 (0.05)	(-0.20, -0.02)	0.49	(0.39, 0.50)	0.51	(0.50, 0.61)	1.02	(1.00, 1.57)
N = 150, T = 100	yes	50952	0.22 (0.06)	(0.13, 0.32)	0.12 (0.07)	(0.01, 0.23)	0.61	(0.50, 1.00)	0.39	(0.00, 0.50)	1.54	(1.00, 2.87e+04)

Table D6: Subset Analysis Results – Pooled Within-Subject Level for H_1 where parameters are in agreement with population parameter ordering

			ϕ_{12}		ϕ_{21}		w_{H1}		w_{H1c}		ratio ww'	
Condition	Support H_1	N_{pooled}	Mean (SD)	(min, max)	Mean (SD)	(min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	13811	0.20 (0.05)	(0.13, 0.28)	0.14 (0.06)	(0.05, 0.22)	0.30	(0.10, 0.38)	0.44	(0.16, 0.45)	1.49	(1.00, 1.65)
N = 50, T = 25	yes	3551	0.27 (0.05)	(0.19, 0.36)	0.08 (0.06)	(-0.01, 0.17)	0.45	(0.38, 0.96)	0.34	(0.03, 0.38)	1.32	(1.00, 36.87)
N = 50, T = 50	no	11797	0.20 (0.05)	(0.12, 0.28)	0.14 (0.05)	(0.06, 0.23)	0.30	(0.18, 0.38)	0.44	(0.29, 0.45)	1.46	(1.00, 1.65)
N = 50, T = 50	yes	5555	0.25 (0.05)	(0.18, 0.35)	0.09 (0.06)	(-0.01, 0.18)	0.49	(0.38, 0.99)	0.32	(0.00, 0.38)	1.52	(1.00, 259.66)
N = 50, T = 75	no	10223	0.20 (0.05)	(0.12, 0.28)	0.15 (0.06)	(0.05, 0.24)	0.30	(0.23, 0.38)	0.44	(0.37, 0.45)	1.45	(1.00, 1.65)
N = 50, T = 75	yes	7052	0.25 (0.05)	(0.17, 0.34)	0.09 (0.06)	(-0.01, 0.19)	0.52	(0.38, 1.00)	0.30	(0.00, 0.38)	1.75	(1.00, 5054.36)
N = 50, T = 100	no	8937	0.20 (0.06)	(0.11, 0.29)	0.15 (0.06)	(0.05, 0.25)	0.30	(0.19, 0.38)	0.44	(0.32, 0.45)	1.46	(1.00, 1.65)
N = 50, T = 100	yes	7897	0.25 (0.06)	(0.16, 0.35)	0.09 (0.06)	(-0.01, 0.20)	0.55	(0.38, 1.00)	0.28	(0.00, 0.38)	2.00	(1.00, 1.72e+05)
N = 75, T = 25	no	21903	0.20 (0.04)	(0.14, 0.28)	0.14 (0.05)	(0.06, 0.22)	0.30	(0.27, 0.38)	0.44	(0.38, 0.45)	1.48	(1.00, 1.65)
N = 75, T = 25	yes	5177	0.26 (0.05)	(0.19, 0.35)	0.09 (0.05)	(-0.00, 0.18)	0.45	(0.38, 0.96)	0.35	(0.03, 0.38)	1.29	(1.00, 34.28)
N = 75, T = 50	no	17977	0.20 (0.05)	(0.13, 0.28)	0.15 (0.05)	(0.06, 0.23)	0.30	(0.26, 0.38)	0.44	(0.38, 0.45)	1.46	(1.00, 1.65)
N = 75, T = 50	yes	8485	0.25 (0.05)	(0.18, 0.34)	0.09 (0.06)	(-0.00, 0.18)	0.49	(0.38, 0.99)	0.32	(0.01, 0.38)	1.54	(1.00, 154.81)
N = 75, T = 75	no	15294	0.20 (0.05)	(0.12, 0.28)	0.15 (0.06)	(0.06, 0.24)	0.30	(0.23, 0.38)	0.44	(0.38, 0.45)	1.46	(1.00, 1.65)
N = 75, T = 75	yes	10477	0.25 (0.05)	(0.17, 0.34)	0.09 (0.06)	(-0.01, 0.18)	0.52	(0.38, 1.00)	0.30	(0.00, 0.38)	1.74	(1.00, 3.33e+04)
N = 75, T = 100	no	13626	0.20 (0.05)	(0.11, 0.28)	0.15 (0.06)	(0.06, 0.24)	0.30	(0.26, 0.38)	0.44	(0.38, 0.45)	1.45	(1.00, 1.65)
N = 75, T = 100	yes	12165	0.25 (0.05)	(0.16, 0.34)	0.10 (0.06)	(-0.01, 0.20)	0.56	(0.38, 1.00)	0.28	(0.00, 0.38)	2.01	(1.00, 1.31e+04)
N = 100, T = 25	no	29553	0.20 (0.04)	(0.14, 0.27)	0.15 (0.05)	(0.07, 0.21)	0.30	(0.27, 0.38)	0.44	(0.38, 0.45)	1.48	(1.00, 1.65)
N = 100, T = 25	yes	6662	0.26 (0.04)	(0.19, 0.34)	0.09 (0.05)	(-0.00, 0.17)	0.45	(0.38, 0.99)	0.34	(0.01, 0.38)	1.30	(1.00, 113.16)
N = 100, T = 50	no	24294	0.20 (0.04)	(0.13, 0.27)	0.15 (0.05)	(0.07, 0.22)	0.30	(0.24, 0.38)	0.44	(0.38, 0.45)	1.46	(1.00, 1.65)
N = 100, T = 50	yes	11088	0.25 (0.05)	(0.18, 0.33)	0.09 (0.06)	(-0.00, 0.18)	0.48	(0.38, 0.99)	0.32	(0.00, 0.38)	1.48	(1.00, 260.97)
N = 100, T = 75	no	20492	0.20 (0.05)	(0.11, 0.28)	0.15 (0.06)	(0.06, 0.24)	0.30	(0.19, 0.38)	0.44	(0.32, 0.45)	1.45	(1.00, 1.65)
N = 100, T = 75	yes	14011	0.25 (0.05)	(0.17, 0.33)	0.09 (0.06)	(-0.01, 0.19)	0.52	(0.38, 1.00)	0.30	(0.00, 0.38)	1.73	(1.00, 1.34e+05)
N = 100, T = 100	no	17964	0.20 (0.05)	(0.11, 0.28)	0.15 (0.06)	(0.06, 0.24)	0.30	(0.22, 0.38)	0.44	(0.36, 0.45)	1.45	(1.00, 1.65)
N = 100, T = 100	yes	15772	0.25 (0.05)	(0.16, 0.34)	0.09 (0.06)	(-0.01, 0.19)	0.55	(0.38, 1.00)	0.28	(0.00, 0.38)	2.00	(1.00, 2.21e+04)
N = 150, T = 25	no	46504	0.20 (0.04)	(0.14, 0.26)	0.15 (0.04)	(0.08, 0.21)	0.30	(0.27, 0.38)	0.44	(0.38, 0.45)	1.48	(1.00, 1.65)
N = 150, T = 25	yes	9889	0.25 (0.04)	(0.19, 0.32)	0.09 (0.05)	(0.01, 0.17)	0.44	(0.38, 0.98)	0.35	(0.01, 0.38)	1.26	(1.00, 101.70)
N = 150, T = 50	no	36950	0.20 (0.04)	(0.13, 0.27)	0.15 (0.05)	(0.07, 0.22)	0.30	(0.26, 0.38)	0.44	(0.38, 0.45)	1.46	(1.00, 1.65)
N = 150, T = 50	yes	16964	0.25 (0.04)	(0.18, 0.32)	0.09 (0.05)	(0.00, 0.18)	0.48	(0.38, 1.00)	0.32	(0.00, 0.38)	1.50	(1.00, 717.13)
N = 150, T = 75	no	31136	0.20 (0.05)	(0.12, 0.28)	0.15 (0.05)	(0.06, 0.24)	0.30	(0.23, 0.38)	0.44	(0.38, 0.45)	1.46	(1.00, 1.65)
N = 150, T = 75	yes	21022	0.25 (0.05)	(0.17, 0.33)	0.09 (0.06)	(-0.00, 0.19)	0.52	(0.38, 1.00)	0.30	(0.00, 0.38)	1.72	(1.00, 2144.06)
N = 150, T = 100	no	27264	0.20 (0.05)	(0.11, 0.28)	0.15 (0.06)	(0.06, 0.24)	0.30	(0.24, 0.38)	0.44	(0.38, 0.45)	1.45	(1.00, 1.65)
N = 150, T = 100	yes	23730	0.25 (0.05)	(0.16, 0.34)	0.09 (0.06)	(-0.01, 0.19)	0.56	(0.38, 1.00)	0.28	(0.00, 0.38)	2.02	(1.00, 1.74e+04)

Table D7: Subset Analysis Results – Pooled Within-Subject Level for H_{a1} where parameters are in agreement with population parameter ordering

			ϕ_{12}		ϕ_{21}		w_{Ha1}		w_{Ha1c}		ratio ww'	
Condition	Support H_{a1}	N_{pooled}	Mean (SD)	(min, max)	Mean (SD)	(min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	225	0.34 (0.06)	(0.26, 0.43)	0.06 (0.06)	(-0.02, 0.16)	0.44	(0.11, 0.50)	0.56	(0.50, 0.89)	1.30	(1.00, 7.96)
N = 50, T = 25	yes	17137	0.22 (0.05)	(0.13, 0.31)	0.13 (0.06)	(0.02, 0.22)	0.73	(0.50, 0.75)	0.27	(0.25, 0.50)	2.67	(1.00, 3.08)
N = 50, T = 50	no	708	0.31 (0.05)	(0.24, 0.40)	0.06 (0.06)	(-0.02, 0.16)	0.41	(0.03, 0.50)	0.59	(0.50, 0.97)	1.42	(1.00, 35.11)
N = 50, T = 50	yes	16644	0.21 (0.05)	(0.13, 0.30)	0.13 (0.06)	(0.03, 0.22)	0.73	(0.50, 0.77)	0.27	(0.23, 0.50)	2.66	(1.00, 3.42)
N = 50, T = 75	no	1379	0.29 (0.05)	(0.22, 0.38)	0.06 (0.05)	(-0.02, 0.15)	0.39	(0.00, 0.50)	0.61	(0.50, 1.00)	1.54	(1.00, 437.94)
N = 50, T = 75	yes	15896	0.21 (0.05)	(0.13, 0.30)	0.13 (0.06)	(0.02, 0.22)	0.72	(0.50, 0.77)	0.28	(0.23, 0.50)	2.63	(1.00, 3.36)
N = 50, T = 100	no	2002	0.29 (0.05)	(0.21, 0.38)	0.06 (0.06)	(-0.02, 0.16)	0.37	(0.00, 0.50)	0.63	(0.50, 1.00)	1.70	(1.00, 6173.91)
N = 50, T = 100	yes	14832	0.21 (0.06)	(0.12, 0.31)	0.13 (0.07)	(0.02, 0.23)	0.72	(0.50, 0.78)	0.28	(0.22, 0.50)	2.62	(1.00, 3.45)
N = 75, T = 25	no	241	0.33 (0.05)	(0.26, 0.41)	0.06 (0.05)	(-0.01, 0.15)	0.45	(0.12, 0.50)	0.55	(0.50, 0.88)	1.24	(1.00, 7.65)
N = 75, T = 25	yes	26839	0.21 (0.05)	(0.14, 0.30)	0.13 (0.05)	(0.04, 0.21)	0.73	(0.50, 0.76)	0.27	(0.24, 0.50)	2.68	(1.00, 3.18)
N = 75, T = 50	no	1058	0.30 (0.05)	(0.23, 0.38)	0.06 (0.05)	(-0.01, 0.15)	0.42	(0.05, 0.50)	0.58	(0.50, 0.95)	1.37	(1.00, 20.71)
N = 75, T = 50	yes	25404	0.21 (0.05)	(0.13, 0.30)	0.13 (0.06)	(0.03, 0.22)	0.73	(0.50, 0.77)	0.27	(0.23, 0.50)	2.66	(1.00, 3.35)
N = 75, T = 75	no	1959	0.29 (0.05)	(0.22, 0.37)	0.06 (0.05)	(-0.02, 0.15)	0.40	(0.00, 0.50)	0.60	(0.50, 1.00)	1.51	(1.00, 1652.06)
N = 75, T = 75	yes	23812	0.21 (0.05)	(0.13, 0.30)	0.13 (0.06)	(0.03, 0.23)	0.72	(0.50, 0.77)	0.28	(0.23, 0.50)	2.63	(1.00, 3.33)
N = 75, T = 100	no	3015	0.29 (0.05)	(0.21, 0.38)	0.06 (0.05)	(-0.02, 0.16)	0.37	(0.00, 0.50)	0.63	(0.50, 1.00)	1.73	(1.00, 656.18)
N = 75, T = 100	yes	22776	0.21 (0.05)	(0.12, 0.30)	0.13 (0.06)	(0.03, 0.23)	0.72	(0.50, 0.78)	0.28	(0.22, 0.50)	2.62	(1.00, 3.49)
N = 100, T = 25	no	327	0.32 (0.05)	(0.26, 0.40)	0.05 (0.05)	(-0.01, 0.14)	0.45	(0.05, 0.50)	0.55	(0.50, 0.95)	1.24	(1.00, 17.28)
N = 100, T = 25	yes	35888	0.21 (0.04)	(0.14, 0.29)	0.14 (0.05)	(0.05, 0.21)	0.73	(0.50, 0.76)	0.27	(0.24, 0.50)	2.69	(1.00, 3.24)
N = 100, T = 50	no	1240	0.29 (0.04)	(0.23, 0.37)	0.06 (0.05)	(-0.02, 0.14)	0.42	(0.03, 0.50)	0.58	(0.50, 0.97)	1.38	(1.00, 31.60)
N = 100, T = 50	yes	34142	0.21 (0.05)	(0.14, 0.29)	0.13 (0.06)	(0.04, 0.22)	0.73	(0.50, 0.77)	0.27	(0.23, 0.50)	2.66	(1.00, 3.41)
N = 100, T = 75	no	2696	0.29 (0.04)	(0.22, 0.37)	0.06 (0.05)	(-0.03, 0.15)	0.39	(0.00, 0.50)	0.61	(0.50, 1.00)	1.56	(1.00, 5656.71)
N = 100, T = 75	yes	31807	0.21 (0.05)	(0.13, 0.30)	0.13 (0.06)	(0.03, 0.23)	0.73	(0.50, 0.77)	0.27	(0.23, 0.50)	2.64	(1.00, 3.32)
N = 100, T = 100	no	3814	0.29 (0.05)	(0.21, 0.37)	0.06 (0.06)	(-0.02, 0.16)	0.37	(0.00, 0.50)	0.63	(0.50, 1.00)	1.72	(1.00, 1082.83)
N = 100, T = 100	yes	29922	0.21 (0.06)	(0.12, 0.30)	0.13 (0.06)	(0.03, 0.23)	0.72	(0.50, 0.77)	0.28	(0.23, 0.50)	2.63	(1.00, 3.39)
N = 150, T = 25	no	392	0.31 (0.04)	(0.25, 0.39)	0.05 (0.05)	(-0.02, 0.15)	0.45	(0.05, 0.50)	0.55	(0.50, 0.95)	1.23	(1.00, 19.62)
N = 150, T = 25	yes	56001	0.21 (0.04)	(0.15, 0.28)	0.14 (0.05)	(0.06, 0.21)	0.73	(0.50, 0.77)	0.27	(0.23, 0.50)	2.70	(1.00, 3.26)
N = 150, T = 50	no	2054	0.29 (0.04)	(0.23, 0.36)	0.05 (0.05)	(-0.02, 0.14)	0.42	(0.01, 0.50)	0.58	(0.50, 0.99)	1.36	(1.00, 66.10)
N = 150, T = 50	yes	51860	0.21 (0.05)	(0.14, 0.29)	0.13 (0.05)	(0.04, 0.22)	0.73	(0.50, 0.77)	0.27	(0.23, 0.50)	2.66	(1.00, 3.32)
N = 150, T = 75	no	3977	0.29 (0.04)	(0.22, 0.37)	0.06 (0.05)	(-0.02, 0.15)	0.40	(0.01, 0.50)	0.60	(0.50, 0.99)	1.53	(1.00, 184.56)
N = 150, T = 75	yes	48181	0.21 (0.05)	(0.13, 0.30)	0.13 (0.06)	(0.04, 0.23)	0.73	(0.50, 0.77)	0.27	(0.23, 0.50)	2.64	(1.00, 3.32)
N = 150, T = 100	no	5866	0.28 (0.05)	(0.21, 0.36)	0.06 (0.05)	(-0.03, 0.15)	0.36	(0.00, 0.50)	0.64	(0.50, 1.00)	1.75	(1.00, 708.64)
N = 150, T = 100	yes	45128	0.21 (0.05)	(0.12, 0.30)	0.13 (0.06)	(0.03, 0.23)	0.72	(0.50, 0.77)	0.28	(0.23, 0.50)	2.63	(1.00, 3.40)

Table D8: Subset Analysis Results – Pooled Within-Subject Level for H_{a2c} where parameters are in agreement with population parameter ordering

			ϕ_{12}		ϕ_{21}		w_{Ha2c}		w_{Ha2}		ratio ww'	
Condition	Support H_{a2c}	N_{pooled}	Mean (SD)	(min, max)	Mean (SD)	(min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	16641	0.21 (0.05)	(0.13, 0.30)	0.13 (0.06)	(0.03, 0.22)	0.29	(0.27, 0.50)	0.71	(0.50, 0.73)	2.43	(1.00, 2.73)
N = 50, T = 25	yes	721	0.31 (0.05)	(0.24, 0.41)	0.07 (0.06)	(-0.01, 0.17)	0.57	(0.50, 0.95)	0.43	(0.05, 0.50)	1.31	(1.00, 17.97)
N = 50, T = 50	no	15400	0.21 (0.05)	(0.13, 0.29)	0.13 (0.06)	(0.04, 0.22)	0.30	(0.27, 0.50)	0.70	(0.50, 0.73)	2.35	(1.00, 2.74)
N = 50, T = 50	yes	1952	0.28 (0.05)	(0.21, 0.37)	0.07 (0.06)	(-0.02, 0.17)	0.60	(0.50, 0.99)	0.40	(0.01, 0.50)	1.50	(1.00, 114.68)
N = 50, T = 75	no	14108	0.21 (0.05)	(0.12, 0.30)	0.13 (0.06)	(0.03, 0.23)	0.30	(0.27, 0.50)	0.70	(0.50, 0.73)	2.29	(1.00, 2.74)
N = 50, T = 75	yes	3167	0.27 (0.05)	(0.20, 0.36)	0.07 (0.06)	(-0.02, 0.17)	0.63	(0.50, 1.00)	0.37	(0.00, 0.50)	1.71	(1.00, 2038.46)
N = 50, T = 100	no	12764	0.21 (0.06)	(0.12, 0.30)	0.14 (0.07)	(0.03, 0.24)	0.30	(0.27, 0.50)	0.70	(0.50, 0.73)	2.28	(1.00, 2.74)
N = 50, T = 100	yes	4070	0.27 (0.05)	(0.19, 0.36)	0.08 (0.06)	(-0.02, 0.18)	0.67	(0.50, 1.00)	0.33	(0.00, 0.50)	2.02	(1.00, 5.77e+04)
N = 75, T = 25	no	26114	0.21 (0.05)	(0.14, 0.29)	0.13 (0.05)	(0.04, 0.21)	0.29	(0.27, 0.50)	0.71	(0.50, 0.73)	2.44	(1.00, 2.74)
N = 75, T = 25	yes	966	0.30 (0.05)	(0.23, 0.39)	0.07 (0.06)	(-0.01, 0.17)	0.56	(0.50, 0.94)	0.44	(0.06, 0.50)	1.27	(1.00, 16.83)
N = 75, T = 50	no	23441	0.21 (0.05)	(0.13, 0.29)	0.14 (0.06)	(0.05, 0.22)	0.30	(0.27, 0.50)	0.70	(0.50, 0.73)	2.35	(1.00, 2.74)
N = 75, T = 50	yes	3021	0.28 (0.05)	(0.21, 0.36)	0.07 (0.05)	(-0.01, 0.16)	0.60	(0.50, 0.99)	0.40	(0.01, 0.50)	1.47	(1.00, 68.08)
N = 75, T = 75	no	21098	0.21 (0.05)	(0.12, 0.29)	0.14 (0.06)	(0.04, 0.23)	0.30	(0.27, 0.50)	0.70	(0.50, 0.73)	2.31	(1.00, 2.74)
N = 75, T = 75	yes	4673	0.27 (0.05)	(0.20, 0.35)	0.07 (0.06)	(-0.02, 0.17)	0.63	(0.50, 1.00)	0.37	(0.00, 0.50)	1.69	(1.00, 1.19e+04)
N = 75, T = 100	no	19528	0.21 (0.05)	(0.12, 0.30)	0.14 (0.06)	(0.04, 0.24)	0.31	(0.27, 0.50)	0.69	(0.50, 0.73)	2.27	(1.00, 2.74)
N = 75, T = 100	yes	6263	0.27 (0.05)	(0.19, 0.36)	0.08 (0.06)	(-0.02, 0.18)	0.67	(0.50, 1.00)	0.33	(0.00, 0.50)	2.00	(1.00, 4696.25)
N = 100, T = 25	no	34961	0.21 (0.04)	(0.14, 0.29)	0.14 (0.05)	(0.05, 0.21)	0.29	(0.27, 0.50)	0.71	(0.50, 0.73)	2.45	(1.00, 2.74)
N = 100, T = 25	yes	1254	0.29 (0.05)	(0.23, 0.38)	0.07 (0.05)	(-0.01, 0.16)	0.56	(0.50, 0.98)	0.44	(0.02, 0.50)	1.28	(1.00, 51.22)
N = 100, T = 50	no	31710	0.21 (0.05)	(0.13, 0.28)	0.14 (0.05)	(0.05, 0.22)	0.30	(0.27, 0.50)	0.70	(0.50, 0.73)	2.35	(1.00, 2.74)
N = 100, T = 50	yes	3672	0.27 (0.04)	(0.20, 0.35)	0.07 (0.05)	(-0.02, 0.16)	0.60	(0.50, 0.99)	0.40	(0.01, 0.50)	1.48	(1.00, 112.42)
N = 100, T = 75	no	28346	0.21 (0.05)	(0.12, 0.29)	0.14 (0.06)	(0.04, 0.23)	0.30	(0.27, 0.50)	0.70	(0.50, 0.73)	2.30	(1.00, 2.74)
N = 100, T = 75	yes	6157	0.27 (0.05)	(0.20, 0.35)	0.07 (0.06)	(-0.02, 0.16)	0.63	(0.50, 1.00)	0.37	(0.00, 0.50)	1.73	(1.00, 4.66e+04)
N = 100, T = 100	no	25658	0.21 (0.05)	(0.12, 0.29)	0.14 (0.06)	(0.04, 0.23)	0.31	(0.27, 0.50)	0.69	(0.50, 0.73)	2.27	(1.00, 2.74)
N = 100, T = 100	yes	8078	0.27 (0.05)	(0.19, 0.35)	0.08 (0.06)	(-0.02, 0.18)	0.66	(0.50, 1.00)	0.34	(0.00, 0.50)	1.97	(1.00, 7870.53)
N = 150, T = 25	no	54776	0.21 (0.04)	(0.15, 0.28)	0.14 (0.05)	(0.06, 0.21)	0.29	(0.27, 0.50)	0.71	(0.50, 0.73)	2.45	(1.00, 2.74)
N = 150, T = 25	yes	1617	0.28 (0.04)	(0.22, 0.36)	0.06 (0.05)	(-0.01, 0.15)	0.56	(0.50, 0.98)	0.44	(0.02, 0.50)	1.27	(1.00, 48.49)
N = 150, T = 50	no	48151	0.21 (0.05)	(0.13, 0.28)	0.14 (0.05)	(0.05, 0.22)	0.30	(0.27, 0.50)	0.70	(0.50, 0.73)	2.36	(1.00, 2.74)
N = 150, T = 50	yes	5763	0.27 (0.04)	(0.20, 0.35)	0.07 (0.05)	(-0.01, 0.16)	0.60	(0.50, 1.00)	0.40	(0.00, 0.50)	1.50	(1.00, 291.54)
N = 150, T = 75	no	42946	0.21 (0.05)	(0.13, 0.29)	0.14 (0.06)	(0.05, 0.23)	0.30	(0.27, 0.50)	0.70	(0.50, 0.73)	2.31	(1.00, 2.74)
N = 150, T = 75	yes	9212	0.27 (0.05)	(0.20, 0.35)	0.07 (0.06)	(-0.01, 0.17)	0.63	(0.50, 1.00)	0.37	(0.00, 0.50)	1.74	(1.00, 861.49)
N = 150, T = 100	no	38693	0.21 (0.05)	(0.12, 0.29)	0.14 (0.06)	(0.04, 0.23)	0.31	(0.27, 0.50)	0.69	(0.50, 0.73)	2.28	(1.00, 2.74)
N = 150, T = 100	yes	12301	0.26 (0.05)	(0.19, 0.35)	0.08 (0.06)	(-0.02, 0.17)	0.67	(0.50, 1.00)	0.33	(0.00, 0.50)	1.99	(1.00, 5885.79)

D3 $\phi_{12} = 0.20, \phi_{21} = 0.175$

Table D9: Subset Analysis Results – Pooled Within-Subject Level for H_1 where parameters are in agreement with population parameter ordering

			ϕ_{12}		ϕ_{21}		w_{H1}		w_{H1c}		ratio ww'	
Condition	Support H_1	N_{pooled}	Mean (SD)	(min, max)	Mean (SD)	(min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	7	0.11 (0.04)	(0.07, 0.16)	-0.15 (0.04)	(-0.18, -0.10)	0.50	(0.49, 0.50)	0.50	(0.50, 0.51)	1.02	(1.00, 1.05)
N = 50, T = 25	yes	14423	0.24 (0.06)	(0.14, 0.36)	0.14 (0.06)	(0.04, 0.23)	0.54	(0.50, 0.99)	0.46	(0.01, 0.50)	1.18	(1.00, 74.95)
N = 50, T = 50	no	11	0.08 (0.06)	(0.00, 0.16)	-0.11 (0.06)	(-0.20, -0.03)	0.50	(0.46, 0.50)	0.50	(0.50, 0.54)	1.01	(1.00, 1.16)
N = 50, T = 50	yes	14833	0.23 (0.06)	(0.14, 0.34)	0.14 (0.06)	(0.03, 0.24)	0.55	(0.50, 1.00)	0.45	(0.00, 0.50)	1.24	(1.00, 583.08)
N = 50, T = 75	no	9	0.08 (0.06)	(0.01, 0.15)	-0.10 (0.06)	(-0.17, -0.04)	0.49	(0.48, 0.50)	0.51	(0.50, 0.52)	1.03	(1.00, 1.08)
N = 50, T = 75	yes	14605	0.23 (0.06)	(0.14, 0.33)	0.14 (0.06)	(0.03, 0.24)	0.56	(0.50, 1.00)	0.44	(0.00, 0.50)	1.29	(1.00, 4.27e+04)
N = 50, T = 100	no	17	0.06 (0.05)	(-0.02, 0.13)	-0.09 (0.05)	(-0.17, -0.03)	0.50	(0.42, 0.50)	0.50	(0.50, 0.58)	1.01	(1.00, 1.36)
N = 50, T = 100	yes	14676	0.23 (0.06)	(0.13, 0.34)	0.14 (0.07)	(0.02, 0.24)	0.58	(0.50, 1.00)	0.42	(0.00, 0.50)	1.38	(1.00, 7451.16)
N = 75, T = 25	no	5	0.08 (0.04)	(0.03, 0.13)	-0.09 (0.05)	(-0.15, -0.03)	0.50	(0.50, 0.50)	0.50	(0.50, 0.50)	1.00	(1.00, 1.01)
N = 75, T = 25	yes	22033	0.24 (0.06)	(0.15, 0.34)	0.14 (0.05)	(0.05, 0.23)	0.54	(0.50, 0.99)	0.46	(0.01, 0.50)	1.18	(1.00, 85.12)
N = 75, T = 50	no	6	0.07 (0.08)	(-0.00, 0.18)	-0.10 (0.07)	(-0.19, -0.02)	0.50	(0.42, 0.50)	0.50	(0.50, 0.58)	1.00	(1.00, 1.40)
N = 75, T = 50	yes	22432	0.23 (0.06)	(0.15, 0.33)	0.14 (0.06)	(0.05, 0.23)	0.55	(0.50, 1.00)	0.45	(0.00, 0.50)	1.23	(1.00, 403.49)
N = 75, T = 75	no	9	0.05 (0.06)	(-0.02, 0.12)	-0.08 (0.05)	(-0.15, -0.02)	0.50	(0.48, 0.50)	0.50	(0.50, 0.52)	1.02	(1.01, 1.07)
N = 75, T = 75	yes	22013	0.23 (0.06)	(0.14, 0.33)	0.14 (0.06)	(0.03, 0.24)	0.56	(0.50, 1.00)	0.44	(0.00, 0.50)	1.29	(1.00, 1.89e+04)
N = 75, T = 100	no	9	0.10 (0.08)	(0.01, 0.19)	-0.12 (0.07)	(-0.20, -0.04)	0.50	(0.45, 0.50)	0.50	(0.50, 0.55)	1.02	(1.00, 1.21)
N = 75, T = 100	yes	21973	0.23 (0.06)	(0.13, 0.33)	0.14 (0.07)	(0.03, 0.24)	0.58	(0.50, 1.00)	0.42	(0.00, 0.50)	1.38	(1.00, 4886.54)

Table D10: Subset Analysis Results – Pooled Within-Subject Level for H_1 where parameters are in agreement with population parameter ordering

			ϕ_{12}		ϕ_{21}		w_{H1}		w_{H1c}		ratio ww'	
Condition	Support H_1	N_{pooled}	Mean (SD)	(min, max)	Mean (SD)	(min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	11211	0.22 (0.05)	(0.14, 0.31)	0.15 (0.06)	(0.06, 0.24)	0.29	(0.27, 0.38)	0.44	(0.38, 0.45)	1.50	(1.00, 1.65)
N = 50, T = 25	yes	3219	0.31 (0.06)	(0.22, 0.41)	0.10 (0.05)	(0.01, 0.18)	0.46	(0.38, 0.97)	0.34	(0.02, 0.38)	1.36	(1.00, 45.46)
N = 50, T = 50	no	10539	0.21 (0.05)	(0.13, 0.30)	0.16 (0.06)	(0.07, 0.24)	0.29	(0.26, 0.38)	0.44	(0.38, 0.45)	1.49	(1.00, 1.65)
N = 50, T = 50	yes	4305	0.28 (0.06)	(0.19, 0.38)	0.10 (0.06)	(-0.00, 0.20)	0.48	(0.38, 1.00)	0.32	(0.00, 0.38)	1.51	(1.00, 353.66)
N = 50, T = 75	no	9661	0.21 (0.05)	(0.13, 0.30)	0.16 (0.06)	(0.07, 0.25)	0.30	(0.27, 0.38)	0.44	(0.38, 0.45)	1.48	(1.00, 1.65)
N = 50, T = 75	yes	4953	0.27 (0.06)	(0.18, 0.36)	0.11 (0.06)	(0.00, 0.20)	0.50	(0.38, 1.00)	0.31	(0.00, 0.38)	1.61	(1.00, 2.59e+04)
N = 50, T =100	no	8886	0.21 (0.06)	(0.12, 0.30)	0.16 (0.06)	(0.07, 0.26)	0.30	(0.25, 0.38)	0.44	(0.38, 0.45)	1.47	(1.00, 1.65)
N = 50, T =100	yes	5807	0.26 (0.06)	(0.17, 0.37)	0.10 (0.06)	(-0.01, 0.20)	0.53	(0.38, 1.00)	0.29	(0.00, 0.38)	1.79	(1.00, 4519.36)
N = 75, T = 25	no	17094	0.22 (0.05)	(0.14, 0.30)	0.15 (0.05)	(0.07, 0.23)	0.29	(0.27, 0.38)	0.44	(0.38, 0.45)	1.50	(1.00, 1.65)
N = 75, T = 25	yes	4944	0.30 (0.05)	(0.22, 0.40)	0.11 (0.05)	(0.01, 0.18)	0.46	(0.38, 0.97)	0.34	(0.02, 0.38)	1.38	(1.00, 51.63)
N = 75, T = 50	no	16307	0.21 (0.05)	(0.14, 0.30)	0.16 (0.05)	(0.08, 0.24)	0.30	(0.25, 0.38)	0.44	(0.38, 0.45)	1.49	(1.00, 1.65)
N = 75, T = 50	yes	6131	0.27 (0.05)	(0.19, 0.37)	0.11 (0.06)	(0.01, 0.19)	0.48	(0.38, 0.99)	0.33	(0.00, 0.38)	1.46	(1.00, 244.73)
N = 75, T = 75	no	14772	0.21 (0.05)	(0.13, 0.30)	0.16 (0.06)	(0.07, 0.25)	0.30	(0.27, 0.38)	0.44	(0.38, 0.45)	1.48	(1.00, 1.65)
N = 75, T = 75	yes	7250	0.27 (0.06)	(0.18, 0.36)	0.11 (0.06)	(0.00, 0.20)	0.50	(0.38, 1.00)	0.31	(0.00, 0.38)	1.61	(1.00, 1.15e+04)
N = 75, T =100	no	13415	0.21 (0.05)	(0.12, 0.30)	0.16 (0.06)	(0.07, 0.25)	0.30	(0.26, 0.38)	0.44	(0.38, 0.45)	1.47	(1.00, 1.65)
N = 75, T =100	yes	8567	0.26 (0.06)	(0.17, 0.36)	0.11 (0.06)	(-0.00, 0.21)	0.52	(0.38, 1.00)	0.30	(0.00, 0.38)	1.77	(1.00, 2963.84)

Table D11: Subset Analysis Results – Pooled Within-Subject Level for H_{a1} where parameters are in agreement with population parameter ordering

			ϕ_{12}		ϕ_{21}		w_{Ha1}		w_{Ha1c}		ratio ww'	
Condition	Support H_{a1}	N_{pooled}	Mean (SD)	(min, max)	Mean (SD)	(min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	315	0.38 (0.05)	(0.31, 0.47)	0.08 (0.05)	(-0.00, 0.16)	0.43	(0.09, 0.50)	0.57	(0.50, 0.91)	1.30	(1.01, 10.20)
N = 50, T = 25	yes	14115	0.24 (0.06)	(0.14, 0.34)	0.14 (0.06)	(0.04, 0.23)	0.73	(0.50, 0.76)	0.27	(0.24, 0.50)	2.65	(1.00, 3.09)
N = 50, T = 50	no	586	0.33 (0.05)	(0.26, 0.42)	0.07 (0.05)	(-0.01, 0.16)	0.42	(0.02, 0.50)	0.58	(0.50, 0.98)	1.39	(1.00, 53.07)
N = 50, T = 50	yes	14258	0.23 (0.06)	(0.14, 0.33)	0.14 (0.06)	(0.04, 0.24)	0.73	(0.50, 0.76)	0.27	(0.24, 0.50)	2.66	(1.00, 3.24)
N = 50, T = 75	no	817	0.31 (0.05)	(0.23, 0.40)	0.07 (0.06)	(-0.02, 0.17)	0.40	(0.00, 0.50)	0.60	(0.50, 1.00)	1.49	(1.00, 1269.19)
N = 50, T = 75	yes	13797	0.23 (0.06)	(0.13, 0.32)	0.15 (0.06)	(0.04, 0.24)	0.73	(0.50, 0.77)	0.27	(0.23, 0.50)	2.67	(1.00, 3.31)
N = 50, T =100	no	1258	0.31 (0.06)	(0.22, 0.40)	0.07 (0.06)	(-0.02, 0.17)	0.37	(0.00, 0.50)	0.63	(0.50, 1.00)	1.67	(1.00, 367.53)
N = 50, T =100	yes	13435	0.22 (0.06)	(0.13, 0.32)	0.15 (0.07)	(0.04, 0.25)	0.73	(0.50, 0.77)	0.27	(0.23, 0.50)	2.66	(1.00, 3.26)
N = 75, T = 25	no	518	0.37 (0.05)	(0.29, 0.46)	0.08 (0.05)	(0.00, 0.16)	0.44	(0.09, 0.50)	0.56	(0.50, 0.91)	1.26	(1.00, 10.65)
N = 75, T = 25	yes	21520	0.23 (0.06)	(0.15, 0.33)	0.14 (0.05)	(0.05, 0.23)	0.73	(0.50, 0.75)	0.27	(0.25, 0.50)	2.66	(1.00, 3.08)
N = 75, T = 50	no	751	0.33 (0.05)	(0.25, 0.41)	0.07 (0.05)	(-0.01, 0.16)	0.42	(0.02, 0.50)	0.58	(0.50, 0.98)	1.39	(1.00, 40.07)
N = 75, T = 50	yes	21687	0.23 (0.05)	(0.15, 0.32)	0.15 (0.06)	(0.05, 0.23)	0.73	(0.50, 0.78)	0.27	(0.22, 0.50)	2.67	(1.00, 3.51)
N = 75, T = 75	no	1191	0.31 (0.05)	(0.23, 0.40)	0.07 (0.06)	(-0.01, 0.17)	0.40	(0.00, 0.50)	0.60	(0.50, 1.00)	1.49	(1.00, 701.83)
N = 75, T = 75	yes	20831	0.23 (0.06)	(0.14, 0.32)	0.15 (0.06)	(0.05, 0.24)	0.73	(0.50, 0.77)	0.27	(0.23, 0.50)	2.67	(1.00, 3.29)
N = 75, T =100	no	1732	0.30 (0.05)	(0.22, 0.39)	0.07 (0.06)	(-0.02, 0.17)	0.38	(0.00, 0.50)	0.62	(0.50, 1.00)	1.63	(1.00, 247.99)
N = 75, T =100	yes	20250	0.22 (0.06)	(0.13, 0.32)	0.15 (0.06)	(0.04, 0.24)	0.73	(0.50, 0.77)	0.27	(0.23, 0.50)	2.66	(1.00, 3.40)

Table D12: Subset Analysis Results – Pooled Within-Subject Level for H_{a2c} where parameters are in agreement with population parameter ordering

			ϕ_{12}		ϕ_{21}		w_{Ha2c}		w_{Ha2}		ratio ww'	
Condition	Support H_{a2c}	N_{pooled}	Mean (SD)	(min, max)	Mean (SD)	(min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	13568	0.23 (0.06)	(0.14, 0.33)	0.14 (0.06)	(0.05, 0.23)	0.29	(0.27, 0.50)	0.71	(0.50, 0.73)	2.43	(1.00, 2.73)
N = 50, T = 25	yes	862	0.35 (0.06)	(0.27, 0.45)	0.09 (0.05)	(-0.00, 0.17)	0.57	(0.50, 0.96)	0.43	(0.04, 0.50)	1.35	(1.00, 22.37)
N = 50, T = 50	no	13328	0.22 (0.05)	(0.14, 0.32)	0.15 (0.06)	(0.05, 0.24)	0.29	(0.27, 0.50)	0.71	(0.50, 0.73)	2.40	(1.00, 2.73)
N = 50, T = 50	yes	1516	0.31 (0.05)	(0.23, 0.40)	0.08 (0.06)	(-0.01, 0.17)	0.59	(0.50, 0.99)	0.41	(0.01, 0.50)	1.46	(1.00, 160.00)
N = 50, T = 75	no	12675	0.22 (0.06)	(0.13, 0.31)	0.15 (0.06)	(0.05, 0.24)	0.30	(0.27, 0.50)	0.70	(0.50, 0.73)	2.38	(1.00, 2.74)
N = 50, T = 75	yes	1939	0.29 (0.05)	(0.21, 0.39)	0.08 (0.06)	(-0.01, 0.18)	0.62	(0.50, 1.00)	0.38	(0.00, 0.50)	1.62	(1.00, 9236.59)
N = 50, T =100	no	11970	0.22 (0.06)	(0.13, 0.31)	0.15 (0.06)	(0.05, 0.25)	0.30	(0.27, 0.50)	0.70	(0.50, 0.73)	2.36	(1.00, 2.74)
N = 50, T =100	yes	2723	0.29 (0.06)	(0.20, 0.38)	0.09 (0.06)	(-0.02, 0.19)	0.64	(0.50, 1.00)	0.36	(0.00, 0.50)	1.82	(1.00, 1796.81)
N = 75, T = 25	no	20676	0.23 (0.05)	(0.15, 0.32)	0.15 (0.05)	(0.06, 0.23)	0.29	(0.27, 0.50)	0.71	(0.50, 0.73)	2.44	(1.00, 2.73)
N = 75, T = 25	yes	1362	0.34 (0.05)	(0.26, 0.43)	0.09 (0.05)	(0.01, 0.16)	0.58	(0.50, 0.96)	0.42	(0.04, 0.50)	1.38	(1.00, 24.94)
N = 75, T = 50	no	20389	0.22 (0.05)	(0.14, 0.31)	0.15 (0.05)	(0.06, 0.24)	0.29	(0.27, 0.50)	0.71	(0.50, 0.73)	2.41	(1.00, 2.74)
N = 75, T = 50	yes	2049	0.30 (0.05)	(0.22, 0.39)	0.09 (0.06)	(-0.00, 0.18)	0.59	(0.50, 0.99)	0.41	(0.01, 0.50)	1.47	(1.00, 112.77)
N = 75, T = 75	no	19121	0.22 (0.05)	(0.14, 0.31)	0.15 (0.06)	(0.05, 0.24)	0.30	(0.27, 0.50)	0.70	(0.50, 0.73)	2.38	(1.00, 2.74)
N = 75, T = 75	yes	2901	0.29 (0.05)	(0.21, 0.38)	0.09 (0.06)	(-0.01, 0.18)	0.62	(0.50, 1.00)	0.38	(0.00, 0.50)	1.60	(1.00, 4298.32)
N = 75, T =100	no	18100	0.22 (0.06)	(0.13, 0.31)	0.15 (0.06)	(0.05, 0.25)	0.30	(0.27, 0.50)	0.70	(0.50, 0.73)	2.35	(1.00, 2.74)
N = 75, T =100	yes	3882	0.28 (0.06)	(0.20, 0.38)	0.09 (0.06)	(-0.01, 0.19)	0.64	(0.50, 1.00)	0.36	(0.00, 0.50)	1.78	(1.00, 1184.48)

Table D13: Subset Analysis Results – Pooled Within-Subject Level for H_{a2c} where parameters are in agreement with population parameter ordering

			ϕ_{12}		ϕ_{21}		w_{Ha2c}		w_{Ha2}		ratio ww'	
Condition	Support H_{a2c}	N_{pooled}	Mean (SD)	(min, max)	Mean (SD)	(min, max)	Median	(min, max)	Median	(min, max)	Median	(min, max)
N = 50, T = 25	no	13568	0.23 (0.06)	(0.14, 0.33)	0.14 (0.06)	(0.05, 0.23)	0.29	(0.27, 0.50)	0.71	(0.50, 0.73)	2.43	(1.00, 2.73)
N = 50, T = 25	yes	862	0.35 (0.06)	(0.27, 0.45)	0.09 (0.05)	(-0.00, 0.17)	0.57	(0.50, 0.96)	0.43	(0.04, 0.50)	1.35	(1.00, 22.37)
N = 50, T = 50	no	13328	0.22 (0.05)	(0.14, 0.32)	0.15 (0.06)	(0.05, 0.24)	0.29	(0.27, 0.50)	0.71	(0.50, 0.73)	2.40	(1.00, 2.73)
N = 50, T = 50	yes	1516	0.31 (0.05)	(0.23, 0.40)	0.08 (0.06)	(-0.01, 0.17)	0.59	(0.50, 0.99)	0.41	(0.01, 0.50)	1.46	(1.00, 160.00)
N = 50, T = 75	no	12675	0.22 (0.06)	(0.13, 0.31)	0.15 (0.06)	(0.05, 0.24)	0.30	(0.27, 0.50)	0.70	(0.50, 0.73)	2.38	(1.00, 2.74)
N = 50, T = 75	yes	1939	0.29 (0.05)	(0.21, 0.39)	0.08 (0.06)	(-0.01, 0.18)	0.62	(0.50, 1.00)	0.38	(0.00, 0.50)	1.62	(1.00, 9236.59)
N = 50, T =100	no	11970	0.22 (0.06)	(0.13, 0.31)	0.15 (0.06)	(0.05, 0.25)	0.30	(0.27, 0.50)	0.70	(0.50, 0.73)	2.36	(1.00, 2.74)
N = 50, T =100	yes	2723	0.29 (0.06)	(0.20, 0.38)	0.09 (0.06)	(-0.02, 0.19)	0.64	(0.50, 1.00)	0.36	(0.00, 0.50)	1.82	(1.00, 1796.81)
N = 75, T = 25	no	20676	0.23 (0.05)	(0.15, 0.32)	0.15 (0.05)	(0.06, 0.23)	0.29	(0.27, 0.50)	0.71	(0.50, 0.73)	2.44	(1.00, 2.73)
N = 75, T = 25	yes	1362	0.34 (0.05)	(0.26, 0.43)	0.09 (0.05)	(0.01, 0.16)	0.58	(0.50, 0.96)	0.42	(0.04, 0.50)	1.38	(1.00, 24.94)
N = 75, T = 50	no	20389	0.22 (0.05)	(0.14, 0.31)	0.15 (0.05)	(0.06, 0.24)	0.29	(0.27, 0.50)	0.71	(0.50, 0.73)	2.41	(1.00, 2.74)
N = 75, T = 50	yes	2049	0.30 (0.05)	(0.22, 0.39)	0.09 (0.06)	(-0.00, 0.18)	0.59	(0.50, 0.99)	0.41	(0.01, 0.50)	1.47	(1.00, 112.77)
N = 75, T = 75	no	19121	0.22 (0.05)	(0.14, 0.31)	0.15 (0.06)	(0.05, 0.24)	0.30	(0.27, 0.50)	0.70	(0.50, 0.73)	2.38	(1.00, 2.74)
N = 75, T = 75	yes	2901	0.29 (0.05)	(0.21, 0.38)	0.09 (0.06)	(-0.01, 0.18)	0.62	(0.50, 1.00)	0.38	(0.00, 0.50)	1.60	(1.00, 4298.32)
N = 75, T =100	no	18100	0.22 (0.06)	(0.13, 0.31)	0.15 (0.06)	(0.05, 0.25)	0.30	(0.27, 0.50)	0.70	(0.50, 0.73)	2.35	(1.00, 2.74)
N = 75, T =100	yes	3882	0.28 (0.06)	(0.20, 0.38)	0.09 (0.06)	(-0.01, 0.19)	0.64	(0.50, 1.00)	0.36	(0.00, 0.50)	1.78	(1.00, 1184.48)

E (Adjusted)THR plot: Within Person

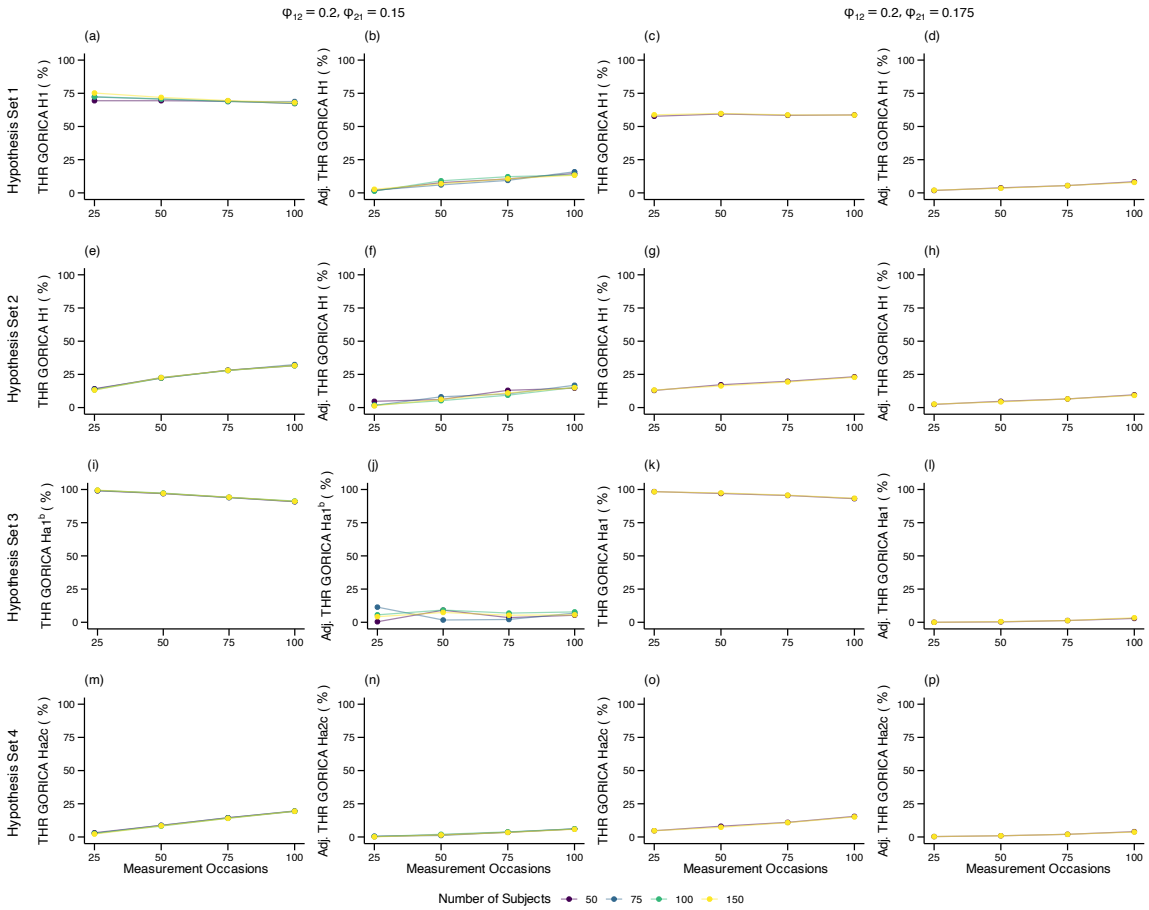

Figure 3: The (adjusted) true hypothesis rates when evaluating hypotheses with the GORICA in multilevel bivariate VAR(1) models where the population cross-lagged parameters are $\phi_{12}, \phi_{21} = 0.20, 0.15$. The THRs are the percentages for the selection of the true hypothesis at the within-level, where the subjects are pooled. T

F Empirical Example

F1 Prior Specification

The prior specification adopts a hierarchical Bayesian framework with weakly informative priors. The within-subject precision matrix $\mathbf{I}_{\text{pre}}$ is assigned a Wishart prior

$$\mathbf{I}_{\text{pre}} \sim \text{Wishart}\big(R,\, 3\big),$$

with $R = \mathbf{I}_2$, which implies an inverse–Wishart prior on the residual covariance matrix $\Sigma = \mathbf{I}_{\text{pre}}^{-1}$. Each of the six subject-specific VAR coefficients $b_{j,k}$ (for $k = 1, \ldots, 6$) is drawn from a normal distribution

$$b_{j,k} \;\sim\; \text{Normal}\big(\text{intb}_k + c_{k,x}\, x_j,\; \tau_k\big),$$

where the fixed intercepts $\text{intb}_1, \ldots, \text{intb}_6$ and covariate effects $c_{1,x}, \ldots, c_{6,x}$ are each given diffuse Normal(0, 0.0001) priors in precision form. The precisions τ_k are defined as $\tau_k = 1/\sigma_k^2$ with hyper-variances

$$\sigma_k^2 \;\sim\; \text{Uniform}(0,\, 10).$$

This configuration imposes minimal prior information while providing regularization to ensure stable estimation of both within- and between-subject dynamics.

F2 Convergence

We analyzed the data with seed value 9998 and specified an adaptation phase of 4000 iterations with the *jags.model* function of the *rjags* package in R (version 4.3.1). After the adaptation phase, 6000 iterations were obtained and discarded as a burn-in phase; a total of 10,000 iterations was thus discarded before obtaing samples from the posterior for analysis. Next, we specfied 2 chains with 25,000 iterations each and a thinning interval of 10, resulting in a total of 5000 iterations on which we base our conclusions. This means that every 10th iteration is saved, and all other iterations are discarded. we utilized thinning because parameters in multilevel models tend to exhibit high covariances, leading to inefficient exploration of the parameter space. With other words, highly correlated data tend to yield high correlated parameters, making the parameters at each iteration dependent on each other.

We investigated the convergence by assessing trace plots and the Gelman-Rubin statistic for the between-level parameters, and additionally check autocorrelations. The trace plots for the fixed effects and the random variances are shown on the next page. As will be clear, the plots exhibited a 'fat hairy caterpillar' indicating that the chains have likely converged onto a stable distribution. As we can never prove convergence, based on the trace plots we conclude that there are no signs of non-convergence.

The Gelman–Rubin statistic $\hat{R}$, obtained via the `gelman.diag` function, was essentially 1.00 for all between-level parameters, indicating that the variance within each chain closely matched the variance between chains and that the algorithm reached a stable equilibrium, showning no sign of non-convergence.

Autocorrelation diagnostics, assessed with the `autocorr.diag` and `autocorr.plot` functions, showed that correlations decayed to below 0.05 by lag one for all parameters, reflecting efficient mixing and little serial dependence. Together, the trace-plot "hairy caterpillars," the near-unity Gelman–Rubin statistics, and the rapid decline in autocorrelations provide no evidence of non-convergence, supporting the reliability of our posterior inferences.

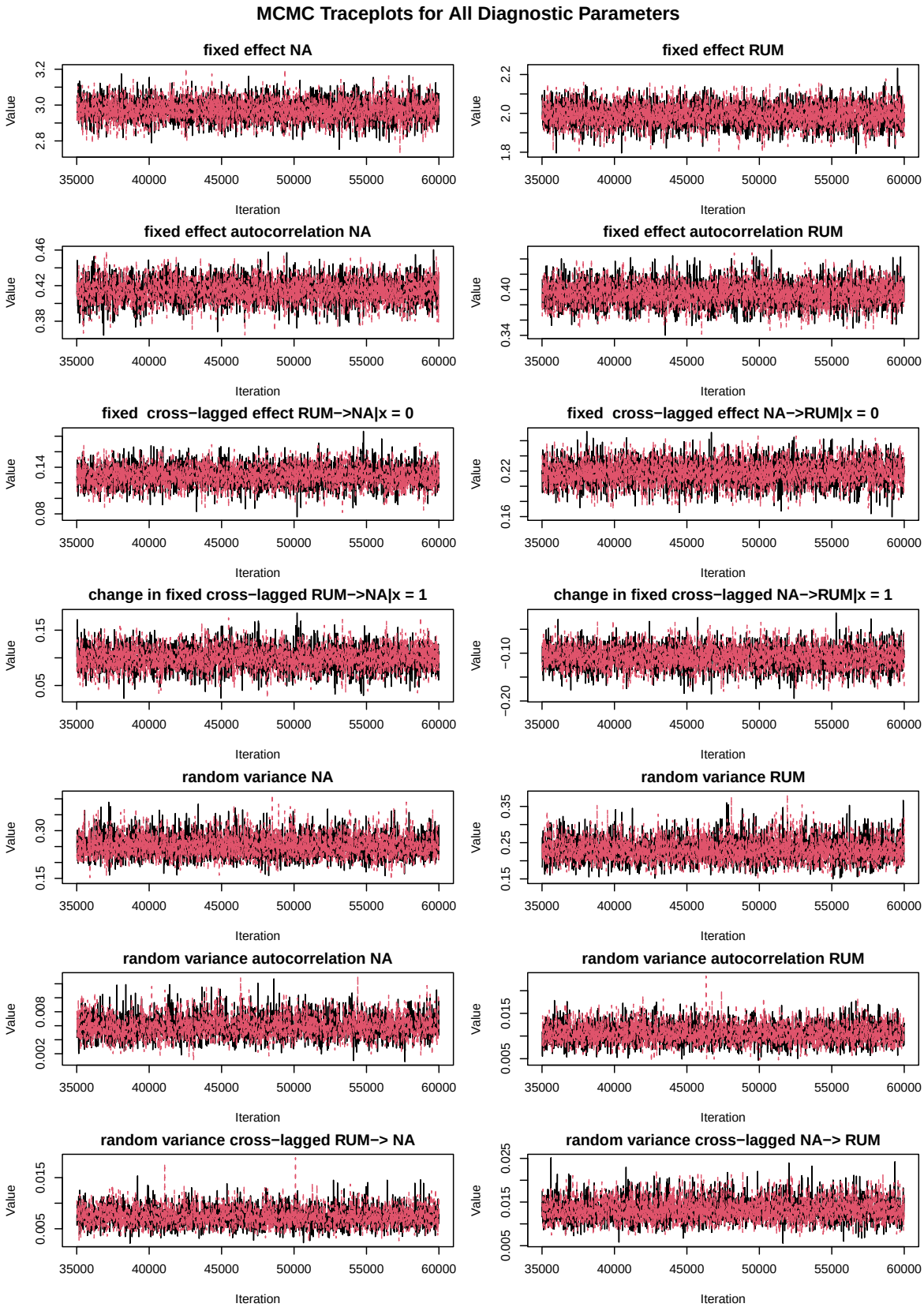

Figure 4: Traceplots of fixed effect parameters and random variances of a simulated data set analyzed with a multilevel bivaraite VAR(1) model, with one dichotomous covariate predicting cross-lagged parameters.