

ONLINE APPENDICES

A SPE supporting cooperation

We describe a set of SPE that support cooperation, taking the following form. There are two regimes, *cooperation* and *defect-forever*. In *defect-forever*, subjects both play (B, B) forever. In the *cooperation* regime, players play (A, A) . If both signals are A , then players remain in the cooperation regime. If at least one signal is B , then players switch to the *defect-forever* regime with probability m . Note that a public randomization device, e.g., a random variable uniformly distributed on $[0, 1]$ is needed to implement this strategy. It can be demonstrated that the lowest value of m consistent with an SPE is $m \approx 0.1905$.

B Additional Tables and Figures

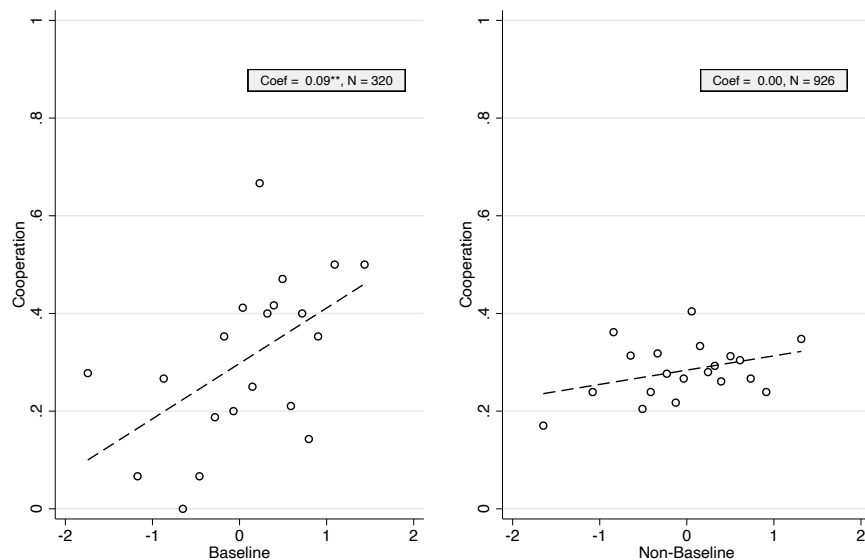


Figure 4: Last Round Joint Cooperation in Late Supergames

Table 3: Baseline: Effect of IQ and Memory on Round 1 Cooperation

Variable	Coefficient	p-value
IQ	0.070	0.001
Memory	0.069	0.018
Interaction	0.041	0.065
Seed 1	0.236	0.000
Seed 2	0.032	0.003
Seed 3	0.315	0.001
Seed 4	0.176	0.000
Seed 5	-0.126	0.000
Seed 6	-0.017	0.202
Constant	0.416	0.000
Number of obs	640	

Table 4: Strategies included in the SFEM Estimation

Strategy	Abbreviation	Description
Always Cooperate §	AllC	C in all rounds.
Always Defect	AllD	D in all rounds.
Tit for Tat §*	TFT	C unless the other's previous choice was D.
Tit for Two Tats §‡*	TF2T	C unless the other played D in both of the last 2 rounds.
Tit for Three Tats §‡*	TF3T	C unless the other played D in both of the last 3 rounds.
Two Tits for Tat §*	2TFT	Select C unless the other played D in either of the last 2 rounds.
Two Tits for Two Tats §‡*	2TF2T	Select C unless the other played two consecutive D the last 3 rounds.
T2 §*	T2	Select C unless either plays D, then play D twice and return to C.
Suspicious TFT	DTFT	D in round 1, then play TFT.
Suspicious TF2T	DTF2T	D in round 1, then play TF2T.
Suspicious TF3T	DTF3T	D in round 1, then play TF3T.
Suspicious 2TFT	D2TFT	D in round 1, then play 2TFT.
Grim Trigger §	Grim	C unless either selects D, then play D forever.
Lenient Grim Trigger 2 §‡	Grim2	C unless two consecutive rounds where one plays D, then play D forever.
Lenient Grim Trigger 3 §‡	Grim3	C unless three consecutive rounds where one plays D, then play D forever.
Suspicious Grim Trigger 2	DGrim2	D in the first round, then play Grim2.
Suspicious Grim Trigger 3	DGrim3	D in the first round then play Grim3
Perfect Tit-For-Tat §*	PTFT	C if both selected the same move last round, otherwise play D.
PTFT 2-round punish §*	2PTFT	C if both selected the same move in the last 2 rounds, both played D in the last 2 rounds, or both played D 2 rounds ago and C last round. Otherwise play D.
False Cooperator	FC	C in round 1, then D forever.
Alternator	Alt	Start with D, then alternate between C and D.
Sum2 §‡*	Sum2	Start counter at 0. Increase by 1 every time other's action is C and counter is below 2. Decrease by 1 every time the other's action is not C and counter is above -2. Play C if the counter is not negative and D otherwise.
Payback §*	Payback	Start with C. If other deviates in the previous round, select D. After own deviation in the previous round, select C. After one round of CD or DC, return to C.

Notes: When referring to plays of the other, strategies are defined using observed play, which may not capture intentions that are unobserved. §: Cooperative. ‡: Lenient. *: Forgiving

Table 5: SFEM Output—Early Supergames

Strategies	Baseline		Non-Baseline	
	Below Median	Above Median	Below Median	Above Median
AllC	0.061 (0.048)	0.145** (0.061)	0.090** (0.036)	0.021 (0.020)
AllD	0.326*** (0.078)	0.289*** (0.069)	0.326*** (0.045)	0.371*** (0.057)
TFT	0.059 (0.041)	0.000 (0.028)	0.040** (0.019)	0.017 (0.014)
TF2T	0.000 (0.015)	0.000 (0.049)	0.014 (0.024)	0.094*** (0.034)
TF3T	0.000 (0.035)	0.000 (0.025)	0.049* (0.028)	0.000 (0.016)
2TFT	0.000 (0.033)	0.063* (0.035)	0.009 (0.018)	0.000 (0.017)
2TF2T	0.000 (0.031)	0.000 (0.032)	0.017 (0.020)	0.014 (0.022)
T2	0.000 (0.016)	0.000 (0.000)	0.015 (0.015)	0.000 (0.009)
DTFT	0.017 (0.034)	0.029 (0.033)	0.011 (0.019)	0.019 (0.018)
DTF2T	0.003 (0.035)	0.000 (0.015)	0.008 (0.013)	0.022 (0.018)
DTF3T	0.000 (0.028)	0.000 (0.007)	0.000 (0.009)	0.000 (0.008)
D2TFT	0.072 (0.048)	0.021 (0.023)	0.070** (0.028)	0.057** (0.025)
Grim	0.089 (0.056)	0.000 (0.025)	0.045* (0.025)	0.024 (0.025)
Grim2	0.000 (0.046)	0.095* (0.056)	0.021 (0.020)	0.015 (0.028)
Grim3	0.046 (0.040)	0.038 (0.044)	0.024 (0.025)	0.081*** (0.029)
DGrim2	0.028 (0.046)	0.000 (0.028)	0.023 (0.019)	0.030 (0.020)
DGrim3	0.000 (0.020)	0.018 (0.025)	0.021 (0.019)	0.000 (0.014)
PTFT	0.047 (0.036)	0.000 (0.013)	0.004 (0.009)	0.000 (0.008)
2PTFT	0.000 (0.020)	0.004 (0.022)	0.029 (0.022)	0.010 (0.014)
FC	0.000 (0.021)	0.000 (0.018)	0.008 (0.020)	0.035* (0.021)
Alt	0.000 (0.010)	0.000 (0.000)	0.006 (0.013)	0.000 (0.004)
Sum2	0.128** (0.062)	0.229*** (0.071)	0.126*** (0.037)	0.160*** (0.043)
Payback	0.123	0.069	0.043	0.031
γ	0.721*** (0.070)	0.551*** (0.034)	0.674*** (0.038)	0.578*** (0.030)
β	0.800	0.860	0.815	0.849

Bootstrapped standard errors (with 1000 repetitions) in parentheses.

Level of Significance: *** $p < 1\%$; ** $p < 5\%$; * $p < 10\%$

$$\beta \equiv \frac{1}{1 + \exp\left(\frac{-1}{\gamma}\right)}.$$

Table 6: SFEM Output—Late Supergames

Strategies	Baseline		Non-Baseline	
	Below Median	Above Median	Below Median	Above Median
AllC	0.028 (0.045)	0.073 (0.058)	0.050 (0.033)	0.020 (0.022)
AllD	0.374*** (0.095)	0.221*** (0.069)	0.332*** (0.054)	0.326*** (0.051)
TFT	0.023 (0.025)	0.019 (0.028)	0.013 (0.014)	0.021 (0.019)
TF2T	0.001 (0.025)	0.058 (0.055)	0.106*** (0.033)	0.115*** (0.039)
TF3T	0.082* (0.048)	0.117* (0.065)	0.080* (0.041)	0.014 (0.022)
2TFT	0.000 (0.013)	0.031 (0.027)	0.021* (0.011)	0.022 (0.016)
2TF2T	0.000 (0.024)	0.018 (0.031)	0.000 (0.019)	0.009 (0.017)
T2	0.000 (0.007)	0.000 (0.002)	0.000 (0.008)	0.005 (0.008)
DTFT	0.029 (0.034)	0.072** (0.033)	0.008 (0.012)	0.025* (0.014)
DTF2T	0.040 (0.034)	0.019 (0.025)	0.003 (0.011)	0.022 (0.015)
DTF3T	0.000 (0.018)	0.004 (0.014)	0.001 (0.006)	0.018 (0.014)
D2TFT	0.000 (0.014)	0.009 (0.024)	0.024 (0.018)	0.018 (0.020)
Grim	0.046 (0.038)	0.033 (0.029)	0.022 (0.016)	0.023 (0.019)
Grim2	0.071 (0.050)	0.021 (0.032)	0.073** (0.031)	0.048* (0.027)
Grim3	0.064 (0.044)	0.119** (0.053)	0.062* (0.036)	0.081** (0.034)
DGrim2	0.009 (0.024)	0.006 (0.012)	0.015 (0.013)	0.025 (0.018)
DGrim3	0.009 (0.017)	0.000 (0.007)	0.018 (0.017)	0.000 (0.008)
PTFT	0.015 (0.012)	0.000 (0.004)	0.007 (0.011)	0.000 (0.004)
2PTFT	0.016 (0.021)	0.000 (0.007)	0.021 (0.015)	0.017 (0.012)
FC	0.000 (0.024)	0.000 (0.010)	0.006 (0.011)	0.000 (0.013)
Alt	0.000 (0.003)	0.000 (0.004)	0.012 (0.009)	0.000 (0.004)
Sum2	0.132** (0.053)	0.123** (0.056)	0.127*** (0.035)	0.177*** (0.044)
Payback	0.060	0.055	0.000	0.015
γ	0.546*** (0.043)	0.471*** (0.027)	0.545*** (0.031)	0.476*** (0.023)
β	0.862	0.893	0.862	0.891

Bootstrapped standard errors (with 1000 repetitions) in parentheses. Level of Significance: *** $p < 1\%$; ** $p < 5\%$;

* $p < 10\%$.

$$\beta \equiv \frac{1}{1 + \exp\left(\frac{-1}{\gamma}\right)}.$$