

# Game Theory

## Session 2: Solution Concepts

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# Coordination and Limited War

		<i>B</i>	
		total	limited
<i>A</i>	total	2, 2	3, 1
	limited	1, 3	4, 4

# Coordination and Limited War

		<i>B</i>	
		total	limited
<i>A</i>	total	2, 2	3, 1
	limited	1, 3	4, 4

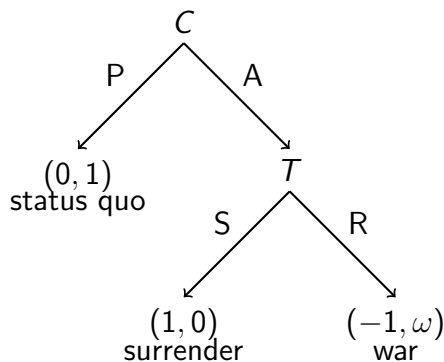
# The Prisoner's Dilemma

		<i>B</i>	
		<i>C</i>	<i>D</i>
<i>A</i>	<i>C</i>	3, 3	1, 4
	<i>D</i>	4, 1	2, 2

# The Prisoner's Dilemma

		<i>B</i>	
		C	D
<i>A</i>	C	3, 3	1, 4
	D	4, 1	2, 2

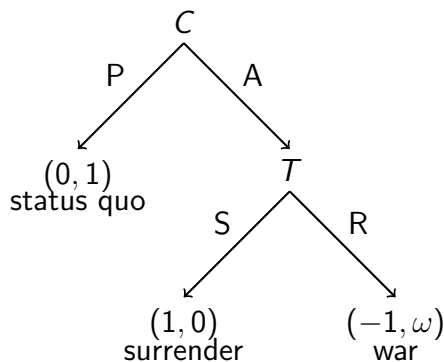
# Nash Equilibria in the Deterrence Game



		$T$	
		$S$	$R$
$C$	$P$	$0, 1$	$0, 1$
	$A$	$1, 0$	$-1, \omega$

let  $\omega < 1$

# Nash Equilibria in the Deterrence Game

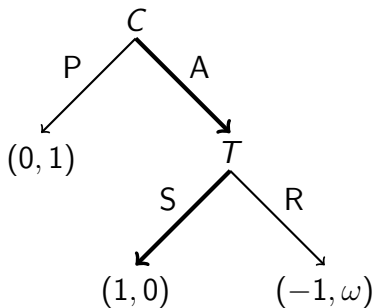


		T	
		S	R
C	P	0, 1	0, 1
	A	1, 0	-1, $\omega$

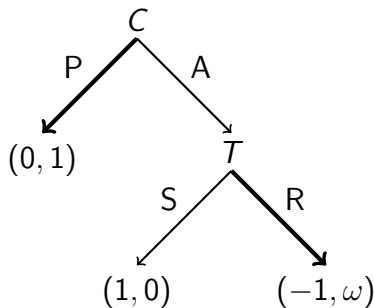
let  $\omega < 1$

# SPE in the Deterrence Game

When  $\omega < 0$

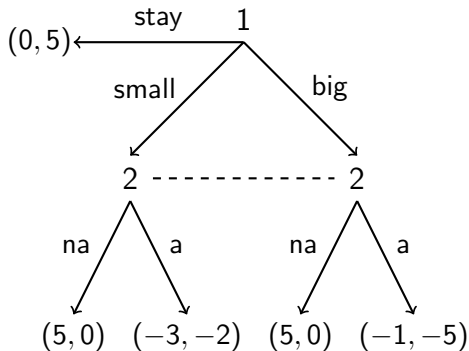


When  $\omega > 0$



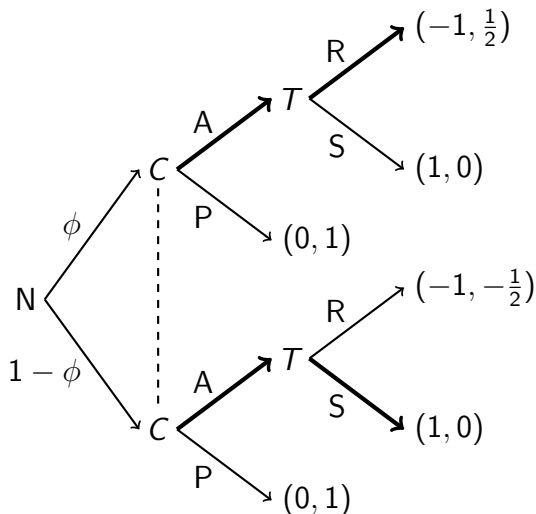


# When SPE Breaks Down



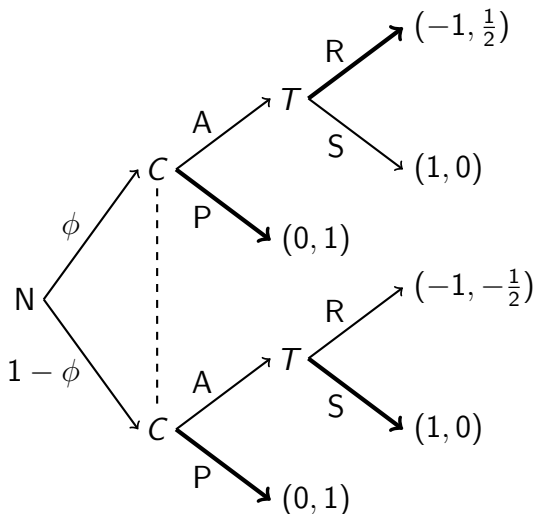
# PBE in the Deterrence Game

When  $\phi < 1/2$



# PBE in the Deterrence Game

When  $\phi \geq 1/2$



# Conclusion

Thank you!