

### Key Question: What Makes Cooperation More Likely?

Jervis sets forth his vision of the international system as anarchic and seeks to discover what variables ameliorate the impact of anarchy and the security dilemma? He models international interactions as Stag Hunt or repeated Prisoner's Dilemma games (p. 171), with each game having four outcomes: DD (defect, defect), CD, DC, and CC (cooperate, cooperate). In these games, the fear of being exploited (you cooperate while the other defects = CD) drives the security dilemma. Given this game structure, Jervis asks, "**What makes it more/less likely that the players will both cooperate (how can we get to CC)?**"

Jervis discusses how changes in each payoff in the game can influence the possibility of cooperation:

1. The cost of being exploited (CD) – As CD decreases, states can afford to be cheated without risking total destruction (loss of sovereignty is the ultimate cost of CD) and can therefore refrain from acting first in ways that may trigger a security dilemma. Status quo powers can therefore adopt lower levels of arms and passive foreign policy that are less likely to threaten others.
  - States views of the costs of CD are subjective – they depend on perceptions of threats and how much each values security above other goals. Thus, prior to WWII, France saw Germany of more of a threat than Britain; as a result, it maintained a larger army and did not favor Britain's appeasement of Hitler.
2. Gains from cooperation (CC) and the costs of a breakdown (DD) – as CC and/or DD increase, states have more incentive to cooperate (the "price" of defection increases, as does the danger of needless arms races and wars). The problem here is that prohibitively high costs of DD change the Stag Hunt/Prisoner's Dilemma game into a game of Chicken, in which each state wants to avoid DD (think of the traditional game of two cars racing toward each other – each wants the other to swerve while he/she does not, but the cost of neither swerving is disastrous).

Thus, states try to convince rival states that that will stand firm ("defect") and that the only way the other can avoid disaster is to back down ("cooperate"). Similarly, when both sides are enjoying great benefits from CC, the side that can credibly threaten to disrupt cooperation unless its demands are met can exploit the other (DC). The given example is that of de Gaulle threatening to break up the Common Market if Britain was admitted.
3. Gains from exploitation (DC) – As the benefits of DC decrease, the chance of cooperation increases. Gains may be low because immediate advantage (e.g., more arms than the other side) cannot be translated into political advantage (more territory) or because the political advantage is not highly valued.
  - However, even when direct gains from DC are great, other factors may reduce the payoff (e.g., Bismarck's military aggressions prior to 1871 made it impossible for him to convince other states of his status-quo position later).

Given these payoffs, Jervis claims that states calculate the expected payoffs from cooperating or defecting in order to decide what to do. These calculations involve estimating the probability that the other state will cooperate, and states often attempt to manipulate the variables mentioned above to induce cooperation. Tactics such as mutual arms inspections and unilateral arms reductions can influence other state's willingness to cooperate by altering their perceptions of the payoffs in each "box" of the game.

### Offense, Defense, and the Security Dilemma

Jervis next examines the conditions under which the security dilemma holds. He identifies two variables which determine this condition:

First, Jervis asks **whether the defense or offense has the advantage** (i.e., is it easier to destroy the other's army and take its territory than it is to defend one's own?) If the defense has the advantage, aggression is next to impossible and comparably-sized status quo states can overcome the security dilemma. If the offense has the

advantage, the security dilemma is at its “most vicious”: even status quo states must act as aggressors by accumulating offensive weapons. Thus, the advantage of offense over defense means that a state’s preferences for the status quo have no impact on its behavior.

- Several factors determine whether offense or defense has the advantage, including technology and geography (for the sake of brevity, I’ll skip the analysis of Russian railroad gauges, artillery, and nuclear weapons).

Second, Jervis asks **whether defensive and offensive weapons are distinguishable from one another**. In other words, do defensive weapons also provide attack capabilities. If they do not, the security dilemma does not apply: states can arm defensively and publicly without threatening other states. This leads to three benefits: 1) status-quo powers can identify each other and build cooperation; 2) status-quo states will obtain advance warning of aggression (they will see states building and deploying offensive weapons); and 3) arms control agreements which ban offensive weapons are feasible.

Nevertheless, Jervis recognizes **several problems with a distinction between defensive and offensive weapons**:

It’s very hard to define a distinction: “A weapon is either offensive or defensive according to which end of it you are looking at.” The setting/situation may determine a weapon’s characteristics (e.g., tanks could be offensive OR defensive depending on whether you were France or Germany in 1940; aircraft can provide cover for tanks or intercept attacking fighters).

If offensive weapons have the advantage over defensive, status quo states will still want them. Status quo states may need offensive weapons to regain territory lost in the opening stages of a war. Status quo states with extensive alliance commitments may need to act as aggressors. Status quo states need offensive weapons as “insurance” if a war goes badly.

#### Four Worlds

Ultimately, Jervis’ analysis leads him to conclude that international relations can result in four possible worlds:

	<b>Offense has advantage</b>	<b>Defense has advantage</b>
<b>Offensive/defensive postures are indistinguishable</b>	Doubly dangerous (1)	Security dilemma, but security requirements may be compatible (2)
<b>Offensive/defensive postures are distinguishable</b>	No security dilemma, but aggression possible. Status quo states can follow different policy than aggressors (3)	Doubly stable (4)

In (1), there is no way to avoid the security dilemma. In (2), the security dilemma exists, but status quo states can clearly indicate their intentions. In (3), the security dilemma does not exist, but aggression is possible, since offense has the advantage. In (4), status quo states have no incentive to acquire offensive weapons and aggressors always signal their intentions by the posture they adopt. Jervis identifies (2) as the case most common in history.