

Offense, Defense, and the Security Dilemma

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Another approach starts with the central point of the security dilemma—that an increase in one state's security decreases the security of others—and examines the conditions under which this proposition holds. Two crucial variables are involved: whether defensive weapons and policies can be distinguished from offensive ones, and whether the defense or the offense has the advantage. The definitions are not always clear, and many cases are difficult to judge, but these two variables shed a great deal of light on the question of whether status-quo powers will adopt compatible security policies. All the variables discussed so far leave the heart of the problem untouched. But when defensive weapons differ from offensive ones, it is possible for a state to make itself more secure without making others less secure. And when the defense has the advantage over the offense, a large increase in one state's security only slightly decreases the security of the others, and status-quo powers can all enjoy a high level of security and largely escape from the state of nature.

Offense–Defense Balance

When we say that the offense has the advantage, we simply mean that it is easier to destroy the other's army and take its territory than it is to defend one's own. When the defense has the advantage, it is easier to protect and to hold than it is to move forward, destroy, and take. If effective defenses can be erected quickly, an attacker may be able to keep territory he has taken in an initial victory. Thus, the dominance of the defense made it very hard for Britain and France to push Germany out of France in World War I. But when superior defenses are difficult for an aggressor to improvise on the battlefield and must be constructed during peacetime, they provide no direct assistance to him.

The security dilemma is at its most vicious when commitments, strategy, or technology dictate that the only route to security lies through expansion. Status-quo powers must then act like aggressors: the fact that they would gladly agree to forego the opportunity for expansion in return for guarantees for their security has no implications for their behavior. Even if expansion is not sought as a goal in itself, there will be quick and drastic changes in the distribution of territory and influence. Conversely, when the defense has the advantage, status-quo states can make themselves more secure without gravely endangering others.¹ Indeed, if the defense has enough of an advantage and if the states are of roughly equal size, not only will the security dilemma cease to inhibit status-quo states from cooperating, but aggression will be next to impossible, thus rendering international anarchy relatively unimportant. If states cannot conquer each other, then the lack of sovereignty, although it presents problems of collective goods in a number of

areas, no longer forces states to devote their primary attention to self-preservation. Although, if force were not usable, there would be fewer restraints on the use of nonmilitary instruments, these are rarely powerful enough to threaten the vital interests of a major state.

Two questions of the offense-defense balance can be separated. First, does the state have to spend more or less than one dollar on defensive forces to offset each dollar spent by the other side on forces that could be used to attack? If the state has one dollar to spend on increasing its security, should it put it into offensive or defensive forces? Second, with a given inventory of forces, is it better to attack or to defend? Is there an incentive to strike first or to absorb the other's blow? These two aspects are often linked: If each dollar spent on offense can overcome each dollar spent on defense, and if both sides have the same defense budgets, then both are likely to build offensive forces and find it attractive to attack rather than to wait for the adversary to strike.

These aspects affect the security dilemma in different ways. The first has its greatest impact on arms races. If the defense has the advantage, and if the status-quo powers have reasonable subjective security requirements, they can probably avoid an arms race. Although an increase in one side's arms and security will still decrease the other's security, the former's increase will be larger than the latter's decrease. So if one side increases its arms, the other can bring its security back up to its previous level by adding a smaller amount to its forces. And if the first side reacts to this change, its increase will also be smaller than the stimulus that produced it. Thus a stable equilibrium will be reached. Shifting from dynamics to statics, each side can be quite secure with forces roughly equal to those of the other. Indeed, if the defense is much more potent than the offense, each side can be willing to have forces much smaller than the other's, and can be indifferent to a wide range of the other's defense policies.

The second aspect—whether it is better to attack or to defend—influences short-run stability. When the offense has the advantage, a state's reaction to international tension will increase the chances of war. The incentives for pre-emption and the "reciprocal fear of surprise attack" in this situation have been made clear by analyses of the dangers that exist when two countries have first-strike capabilities.² There is no way for the state to increase its security without menacing, or even attacking, the other. Even Bismarck, who once called preventive war "committing suicide from fear of death," said that "no government, if it regards war as inevitable even if it does not want it, would be so foolish as to leave to the enemy the choice of time and occasion and to wait for the moment which is most convenient for the enemy."³ In another arena, the same dilemma applies to the policeman in a dark alley confronting a suspected criminal who appears to be holding a weapon. Though racism may indeed be present, the security dilemma can account for many of the tragic shootings of innocent people in the ghettos.

Beliefs about the course of a war in which the offense has the advantage further deepen the security dilemma. When there are incentives to strike first, a

successful attack will usually so weaken the other side that victory will be relatively quick, bloodless, and decisive. It is in these periods when conquest is possible and attractive that states consolidate power internally—for instance, by destroying the feudal barons—and expand externally. There are several consequences that decrease the chance of cooperation among status-quo states. First, war will be profitable for the winner. The costs will be low and the benefits high. Of course, losers will suffer; the fear of losing could induce states to try to form stable cooperative arrangements, but the temptation of victory will make this particularly difficult. Second, because wars are expected to be both frequent and short, there will be incentives for high levels of arms, and quick and strong reaction to the other's increases in arms. The state cannot afford to wait until there is unambiguous evidence that the other is building new weapons. Even large states that have faith in their economic strength cannot wait, because the war will be over before their products can reach the army. Third, when wars are quick, states will have to recruit allies in advance.⁴ Without the opportunity for bargaining and realignments during the opening stages of hostilities, peacetime diplomacy loses a degree of the fluidity that facilitates balance-of-power policies. Because alliances must be secured during peacetime, the international system is more likely to become bipolar. It is hard to say whether war therefore becomes more or less likely, but this bipolarity increases tension between the two camps and makes it harder for status-quo states to gain the benefits of cooperation. Fourth, if wars are frequent, statesmen's perceptual thresholds will be adjusted accordingly and they will be quick to perceive ambiguous evidence as indicating that others are aggressive. Thus, there will be more cases of status-quo powers arming against each other in the incorrect belief that the other is hostile.

When the defense has the advantage, all the foregoing is reversed. The state that fears attack does not preempt—since that would be a wasteful use of its military resources—but rather prepares to receive an attack. Doing so does not decrease the security of others, and several states can do it simultaneously; the situation will therefore be stable, and status-quo powers will be able to cooperate. When Herman Kahn argues that ultimatums “are vastly too dangerous to give because . . . they are quite likely to touch off a pre-emptive strike,”⁵ he incorrectly assumes that it is always advantageous to strike first.

More is involved than short-run dynamics. When the defense is dominant, wars are likely to become stalemates and can be won only at enormous cost. Relatively small and weak states can hold off larger and stronger ones, or can deter attack by raising the costs of conquest to an unacceptable level. States then approach equality in what they can do to each other. Like the .45-caliber pistol in the American West, fortifications were the “great equalizer” in some periods. Changes in the status quo are less frequent and cooperation is more common wherever the security dilemma is thereby reduced.

Many of these arguments can be illustrated by the major powers' policies in the periods preceding the two world wars. Bismarck's wars surprised statesmen by showing that the offense had the advantage, and by being quick, relatively

cheap, and quite decisive. Falling into a common error, observers projected this pattern into the future.⁶ The resulting expectations had several effects. First, states sought semi-permanent allies. In the early stages of the Franco-Prussian War, Napoleon III had thought that there would be plenty of time to recruit Austria to his side. Now, others were not going to repeat this mistake. Second, defense budgets were high and reacted quite sharply to increases on the other side. It is not surprising that Richardson's theory of arms races fits this period well. Third, most decision makers thought that the next European war would not cost much blood and treasure.⁷ That is one reason why war was generally seen as inevitable and why mass opinion was so bellicose. Fourth, once war seemed likely, there were strong pressures to preempt. Both sides believed that whoever moved first could penetrate the other deep enough to disrupt mobilization and thus gain an insurmountable advantage. (There was no such belief about the use of naval forces. Although Churchill made an ill-advised speech saying that if German ships "do not come out and fight in time of war they will be dug out like rats in a hole,"⁸ everyone knew that submarines, mines and coastal fortifications made this impossible. So at the start of the war each navy prepared to defend itself rather than attack, and the short-run destabilizing forces that launched the armies toward each other did not operate.)⁹ Furthermore, each side knew that the other saw the situation the same way, thus increasing the perceived danger that the other would attack, and giving each added reasons to precipitate a war if conditions seemed favorable. In the long and the short run, there were thus both offensive and defensive incentives to strike. This situation casts light on the common question about German motives in 1914: "Did Germany unleash the war deliberately to become a world power or did she support Austria merely to defend a weakening ally," thereby protecting her own position?¹⁰ To some extent, this question is misleading. Because of the perceived advantage of the offense, war was seen as the best route both to gaining expansion and to avoiding drastic loss of influence. There seemed to be no way for Germany merely to retain and safeguard her existing position.

Of course the war showed these beliefs to have been wrong on all points. Trenches and machine guns gave the defense an overwhelming advantage. The fighting became deadlocked and produced horrendous casualties. It made no sense for the combatants to bleed themselves to death. If they had known the power of the defense beforehand, they would have rushed for their own trenches rather than for the enemy's territory. Each side could have done this without increasing the other's incentives to strike. War might have broken out anyway; but at least the pressures of time and the fear of allowing the other to get the first blow would not have contributed to this end. And, had both sides known the costs of the war, they would have negotiated much more seriously. The obvious question is why the states did not seek a negotiated settlement as soon as the shape of the war became clear. Schlieffen had said that if his plan failed, peace should be sought.¹¹ The answer is complex, uncertain, and largely outside of the scope of our concerns. But part of the reason was the hope and sometimes the expectation

that breakthroughs could be made and the dominance of the offensive restored. Without that hope, the political and psychological pressures to fight to a decisive victory might have been overcome.

The politics of the interwar period were shaped by the memories of the previous conflict and the belief that any future war would resemble it. Political and military lessons reinforced each other in ameliorating the security dilemma. Because it was believed that the First World War had been a mistake that could have been avoided by skillful conciliation, both Britain and, to a lesser extent, France were highly sensitive to the possibility that interwar Germany was not a real threat to peace, and alert to the danger that reacting quickly and strongly to her arms could create unnecessary conflict. And because Britain and France expected the defense to continue to dominate, they concluded that it was safe to adopt a more relaxed and nonthreatening military posture.¹² Britain also felt less need to maintain tight alliance bonds. The Allies' military posture then constituted only a slight danger to Germany; had the latter been content with the status quo, it would have been easy for both sides to have felt secure behind their lines of fortifications. Of course the Germans were not content, so it is not surprising that they devoted their money and attention to finding ways out of a defense-dominated stalemate. *Blitzkrieg* tactics were necessary if they were to use force to change the status quo.

The initial stages of the war on the Western Front also contrasted with the First World War. Only with the new air arm were there any incentives to strike first, and these forces were too weak to carry out the grandiose plans that had been both dreamed and feared. The armies, still the main instrument, rushed to defensive positions. Perhaps the allies could have successfully attacked while the Germans were occupied in Poland.¹³ But belief in the defense was so great that this was never seriously contemplated. Three months after the start of the war, the French Prime Minister summed up the view held by almost everyone but Hitler: on the Western Front there is "deadlock. Two Forces of equal strength and the one that attacks seeing such enormous casualties that it cannot move without endangering the continuation of the war or of the aftermath."¹⁴ The Allies were caught in a dilemma they never fully recognized, let alone solved. On the one hand, they had very high war aims; although unconditional surrender had not yet been adopted, the British had decided from the start that the removal of Hitler was a necessary condition for peace.¹⁵ On the other hand, there were no realistic plans or instruments for allowing the Allies to impose their will on the other side. The British Chief of the Imperial General Staff noted, "The French have no intention of carrying out an offensive for years, if at all"; the British were only slightly bolder.¹⁶ So the Allies looked to a long war that would wear the Germans down, cause civilian suffering through shortages, and eventually undermine Hitler. There was little analysis to support this view—and indeed it probably was not supportable—but as long as the defense was dominant and the numbers on each side relatively equal, what else could the Allies do?

To summarize, the security dilemma was much less powerful after World War I than it had been before. In the later period, the expected power of the

defense allowed status-quo states to pursue compatible security policies and avoid arms races. Furthermore, high tension and fear of war did not set off short-run dynamics by which each state, trying to increase its security, inadvertently acted to make war more likely. The expected high costs of war, however, led the Allies to believe that no sane German leader would run the risks entailed in an attempt to dominate the Continent, and discouraged them from risking war themselves.

Technology and Geography

Technology and geography are the two main factors that determine whether the offense or the defense has the advantage. As Brodie notes, "On the tactical level, as a rule, few physical factors favor the attacker but many favor the defender. The defender usually has the advantage of cover. He characteristically fires from behind some form of shelter while his opponent crosses open ground."¹⁷ Anything that increases the amount of ground the attacker has to cross, or impedes his progress across it, or makes him more vulnerable while crossing, increases the advantage accruing to the defense. When states are separated by barriers that produce these effects, the security dilemma is eased, since both can have forces adequate for defense without being able to attack. Impenetrable barriers would actually prevent war; in reality, decision makers have to settle for a good deal less. Buffer zones slow the attacker's progress; they thereby give the defender time to prepare, increase problems of logistics, and reduce the number of soldiers available for the final assault. At the end of the nineteenth century, Arthur Balfour noted Afghanistan's "non-conducting" qualities. "So long as it possesses few roads, and no railroads, it will be impossible for Russia to make effective use of her great numerical superiority at any point immediately vital to the Empire." The Russians valued buffers for the same reasons; it is not surprising that when Persia was being divided into Russian and British spheres of influence some years later, the Russians sought assurances that the British would refrain from building potentially menacing railroads in their sphere. Indeed, since railroad construction radically altered the abilities of countries to defend themselves and to attack others, many diplomatic notes and much intelligence activity in the late nineteenth century centered on this subject.¹⁸

Oceans, large rivers, and mountain ranges serve the same function as buffer zones. Being hard to cross, they allow defense against superior numbers. The defender has merely to stay on his side of the barrier and so can utilize all the men he can bring up to it. The attacker's men, however, can cross only a few at a time, and they are very vulnerable when doing so. If all states were self-sufficient islands, anarchy would be much less of a problem. A small investment in shore defenses and a small army would be sufficient to repel invasion. Only very weak states would be vulnerable, and only very large ones could menace others. As noted above, the United States, and to a lesser extent Great Britain, have partly been able to escape from the state of nature because their geographical positions approximated this ideal.

Although geography cannot be changed to conform to borders, borders can and do change to conform to geography. Borders across which an attack is easy tend to be unstable. States living within them are likely to expand or be absorbed. Frequent wars are almost inevitable since attacking will often seem the best way to protect what one has. This process will stop, or at least slow down, when the state's borders reach—by expansion or contraction—a line of natural obstacles. Security without attack will then be possible. Furthermore, these lines constitute salient solutions to bargaining problems and, to the extent that they are barriers to migration, are likely to divide ethnic groups, thereby raising the costs and lowering the incentives for conquest.

Attachment to one's state and its land reinforce one quasi-geographical aid to the defense. Conquest usually becomes more difficult the deeper the attacker pushes into the other's territory. Nationalism spurs the defenders to fight harder; advancing not only lengthens the attacker's supply lines, but takes him through unfamiliar and often devastated lands that require troops for garrison duty. These stabilizing dynamics will not operate, however, if the defender's war matériel is situated near its borders, or if the people do not care about their state, but only about being on the winning side. In such cases, positive feedback will be at work and initial defeats will be insurmountable.¹⁹

Imitating geography, men have tried to create barriers. Treaties may provide for demilitarized zones on both sides of the border, although such zones will rarely be deep enough to provide more than warning. Even this was not possible in Europe, but the Russians adopted a gauge for their railroads that was broader than that of the neighboring states, thereby complicating the logistics problems of any attacker—including Russia.

Perhaps the most ambitious and at least temporarily successful attempts to construct a system that would aid the defenses of both sides were the interwar naval treaties, as they affected Japanese-American relations. As mentioned earlier, the problem was that the United States could not defend the Philippines without denying Japan the ability to protect her home islands.²⁰ (In 1941 this dilemma became insoluble when Japan sought to extend her control to Malaya and the Dutch East Indies. If the Philippines had been invulnerable, they could have provided a secure base from which the United States could interdict Japanese shipping between the homeland and the areas she was trying to conquer.) In the 1920s and early 1930s each side would have been willing to grant the other security for its possessions in return for a reciprocal grant, and the Washington Naval Conference agreements were designed to approach this goal. As a Japanese diplomat later put it, their country's "fundamental principle" was to have "a strength insufficient for attack and adequate for defense."²¹ Thus Japan agreed in 1922 to accept a navy only three-fifths as large as that of the United States, and the United States agreed not to fortify its Pacific islands.²² (Japan had earlier been forced to agree not to fortify the islands she had taken from Germany in World War I.) Japan's navy would not be large enough to defeat America's anywhere other than close to the home islands. Although the Japanese could still take the Philippines, not

only would they be unable to move farther, but they might be weakened enough by their efforts to be vulnerable to counterattack. Japan, however, gained security. An American attack was rendered more difficult because the American bases were unprotected and because, until 1930, Japan was allowed unlimited numbers of cruisers, destroyers, and submarines that could weaken the American fleet as it made its way across the ocean.²³

The other major determinant of the offense-defense balance is technology. When weapons are highly vulnerable, they must be employed before they are attacked. Others can remain quite invulnerable in their bases. The former characteristics are embodied in unprotected missiles and many kinds of bombers. (It should be noted that it is not vulnerability *per se* that is crucial, but the location of the vulnerability. Bombers and missiles that are easy to destroy only after having been launched toward their targets do not create destabilizing dynamics.) Incentives to strike first are usually absent for naval forces that are threatened by a naval attack. Like missiles in hardened silos, they are usually well protected when in their bases. Both sides can then simultaneously be prepared to defend themselves successfully.

In ground warfare under some conditions, forts, trenches, and small groups of men in prepared positions can hold off large numbers of attackers. Less frequently, a few attackers can storm the defenses. By and large, it is a contest between fortifications and supporting light weapons on the one hand, and mobility and heavier weapons that clear the way for the attack on the other. As the erroneous views held before the two world wars show, there is no simple way to determine which is dominant. "[T]hese oscillations are not smooth and predictable like those of a swinging pendulum. They are uneven in both extent and time. Some occur in the course of a single battle or campaign, others in the course of a war, still others during a series of wars." Longer-term oscillations can also be detected:

The early Gothic age, from the twelfth to the late thirteenth century, with its wonderful cathedrals and fortified places, was a period during which the attackers in Europe generally met serious and increasing difficulties, because the improvement in the strength of fortresses outran the advance in the power of destruction. Later, with the spread of fire-arms at the end of the fifteenth century, old fortresses lost their power to resist. An age ensued during which the offense possessed, apart from short-term setbacks, new advantages. Then, during the seventeenth century, especially after about 1660, and until at least the outbreak of the War of the Austrian Succession in 1740, the defense regained much of the ground it had lost since the great medieval fortresses had proved unable to meet the bombardment of the new and more numerous artillery.²⁴

Another scholar has continued the argument: "The offensive gained an advantage with new forms of heavy mobile artillery in the nineteenth century, but the stalemate of World War I created the impression that the defense again had an advantage; the German invasion in World War II, however, indicated the offensive superiority of highly mechanized armies in the field."²⁵

The situation today with respect to conventional weapons is unclear. Until recently it was believed that tanks and tactical air power gave the attacker an advantage. The initial analyses of the 1973 Arab-Israeli war indicated that new anti-tank and anti-aircraft weapons have restored the primacy of the defense. These weapons are cheap, easy to use, and can destroy a high proportion of the attacking vehicles and planes that are sighted. It then would make sense for a status-quo power to buy lots of \$20,000 missiles rather than buy a few half-million dollar fighter-bombers. Defense would be possible even against a large and well-equipped force; states that care primarily about self-protection would not need to engage in arms races. But further examinations of the new technologies and the history of the October War cast doubt on these optimistic conclusions and leave us unable to render any firm judgment.²⁶

Concerning nuclear weapons, it is generally agreed that defense is impossible—a triumph not of the offense, but of deterrence. Attack makes no sense, not because it can be beaten off, but because the attacker will be destroyed in turn. In terms of the questions under consideration here, the result is the equivalent of the primacy of the defense. First, security is relatively cheap. Less than one percent of the G.N.P. is devoted to deterring a direct attack on the United States; most of it is spent on acquiring redundant systems to provide a lot of insurance against the worst conceivable contingencies. Second, both sides can simultaneously gain security in the form of second-strike capability. Third, and related to the foregoing, second-strike capability can be maintained in the face of wide variations in the other side's military posture. There is no purely military reason why each side has to react quickly and strongly to the other's increases in arms. Any spending that the other devotes to trying to achieve first-strike capability can be neutralized by the state's spending much smaller sums on protecting its second-strike capability. Fourth, there are no incentives to strike first in a crisis.

Important problems remain, of course. Both sides have interests that go well beyond defense of the homeland. The protection of these interests creates conflicts even if neither side desires expansion. Furthermore, the shift from defense to deterrence has greatly increased the importance and perceptions of resolve. Security now rests on each side's belief that the other would prefer to run high risks of total destruction rather than sacrifice its vital interests. Aspects of the security dilemma thus appear in a new form. Are weapons procurements used as an index of resolve? Must they be so used? If one side fails to respond to the other's buildup, will it appear weak and thereby invite predation? Can both sides simultaneously have images of high resolve or is there a zero-sum element involved? Although these problems are real, they are not as severe as those in the prenuclear era: There are many indices of resolve, and states do not so much judge images of resolve in the abstract as ask how likely it is that the other will stand firm in a particular dispute. Since states are most likely to stand firm on matters which concern them most, it is quite possible for both to demonstrate their resolve to protect their own security simultaneously.

Offense–Defense Differentiation

The other major variable that affects how strongly the security dilemma operates is whether weapons and policies that protect the state also provide the capability for attack. If they do not, the basic postulate of the security dilemma no longer applies. A state can increase its own security without decreasing that of others. The advantage of the defense can only ameliorate the security dilemma. A differentiation between offensive and defensive stances comes close to abolishing it. Such differentiation does not mean, however, that all security problems will be abolished. If the offense has the advantage, conquest and aggression will still be possible. And if the offense's advantage is great enough, status-quo powers may find it too expensive to protect themselves by defensive forces and decide to procure offensive weapons even though this will menace others. Furthermore, states will still have to worry that even if the other's military posture shows that it is peaceful now, it may develop aggressive intentions in the future.

Assuming that the defense is at least as potent as the offense, the differentiation between them allows status-quo states to behave in ways that are clearly different from those of aggressors. Three beneficial consequences follow. First, status-quo powers can identify each other, thus laying the foundations for cooperation. Conflicts growing out of the mistaken belief that the other side is expansionist will be less frequent. Second, status-quo states will obtain advance warning when others plan aggression. Before a state can attack, it has to develop and deploy offensive weapons. If procurement of these weapons cannot be disguised and takes a fair amount of time, as it almost always does, a status-quo state will have the time to take countermeasures. It need not maintain a high level of defensive arms as long as its potential adversaries are adopting a peaceful posture. (Although being so armed should not, with the one important exception noted below, alarm other status-quo powers.) States do, in fact, pay special attention to actions that they believe would not be taken by a status-quo state because they feel that states exhibiting such behavior are aggressive. Thus the seizure or development of transportation facilities will alarm others more if these facilities have no commercial value, and therefore can only be wanted for military reasons. In 1906, the British rejected a Russian protest about their activities in a district of Persia by claiming that this area was "only of [strategic] importance [to the Russians] if they wished to attack the Indian frontier, or to put pressure upon us by making us think that they intend to attack it."²⁷

The same inferences are drawn when a state acquires more weapons than observers feel are needed for defense. Thus, the Japanese spokesman at the 1930 London naval conference said that his country was alarmed by the American refusal to give Japan a 70 percent ratio (in place of a 60 percent ratio) in heavy cruisers: "As long as America held that ten percent advantage, it was possible for her to attack. So when America insisted on sixty percent instead of seventy percent, the idea would exist that they were trying to keep that possibility, and the Japanese people could not accept that."²⁸ Similarly, when Mussolini told

Chamberlain in January 1939 that Hitler's arms program was motivated by defensive considerations, the Prime Minister replied that "German military forces were now so strong as to make it impossible for any Power or combination of Powers to attack her successfully. She could not want any further armaments for defensive purposes; what then did she want them for?"²⁹

Of course these inferences can be wrong—as they are especially likely to be because states underestimate the degree to which they menace others.³⁰ And when they are wrong, the security dilemma is deepened. Because the state thinks it has received notice that the other is aggressive, its own arms building will be less restrained and the chances of cooperation will be decreased. But the dangers of incorrect inferences should not obscure the main point: When offensive and defensive postures are different, much of the uncertainty about the other's intentions that contributes to the security dilemma is removed.

The third beneficial consequence of a difference between offensive and defensive weapons is that if all states support the status quo, an obvious arms control agreement is a ban on weapons that are useful for attacking. As President Roosevelt put it in his message to the Geneva Disarmament Conference in 1933: "If all nations will agree wholly to eliminate from possession and use the weapons which make possible a successful attack, defenses automatically will become impregnable, and the frontiers and independence of every nation will become secure."³¹ The fact that such treaties have been rare—the Washington naval agreements discussed above and the anti-ABM treaty can be cited as examples—shows either that states are not always willing to guarantee the security of others, or that it is hard to distinguish offensive from defensive weapons.

Is such a distinction possible? Salvador de Madariaga, the Spanish statesman active in the disarmament negotiations of the interwar years, thought not: "A weapon is either offensive or defensive according to which end of it you are looking at." The French Foreign Minister agreed (although French policy did not always follow this view): "Every arm can be employed offensively or defensively in turn. . . . The only way to discover whether arms are intended for purely defensive purposes or are held in a spirit of aggression is in all cases to enquire into the intentions of the country concerned." Some evidence for the validity of this argument is provided by the fact that much time in these unsuccessful negotiations was devoted to separating offensive from defensive weapons. Indeed, no simple and unambiguous definition is possible and in many cases no judgment can be reached. Before the American entry into World War I, Woodrow Wilson wanted to arm merchantmen only with guns in the back of the ship so they could not initiate a fight, but this expedient cannot be applied to more common forms of armaments.³²

There are several problems. Even when a differentiation is possible, a status-quo power will want offensive arms under any of three conditions: (1) If the offense has a great advantage over the defense, protection through defensive forces will be too expensive. (2) Status-quo states may need offensive weapons to regain territory lost in the opening stages of war. It might be possible, however, for a state to wait to procure these weapons until war seems likely, and they might be needed only in

relatively small numbers, unless the aggressor was able to construct strong defenses quickly in the occupied areas. (3) The state may feel that it must be prepared to take the offensive either because the other side will make peace only if it loses territory or because the state has commitments to attack if the other makes war on a third party. As noted above, status-quo states with extensive commitments are often forced to behave like aggressors. Even when they lack such commitments, status-quo states must worry about the possibility that if they are able to hold off an attack, they will still not be able to end the war unless they move into the other's territory to damage its military forces and inflict pain. Many American naval officers after the Civil War, for example, believed that "only by destroying the commerce of the opponent could the United States bring him to terms."³³

A further complication is introduced by the fact that aggressors as well as status-quo powers require defensive forces as a prelude to acquiring offensive ones, to protect one frontier while attacking another, or for insurance in case the war goes badly. Criminals as well as policemen can use bulletproof vests. Hitler as well as Maginot built a line of forts. Indeed, Churchill reports that in 1936 the German Foreign Minister said: "As soon as our fortifications are constructed [on our western borders] and the countries in Central Europe realize that France cannot enter German territory, all these countries will begin to feel very differently about their foreign policies, and a new constellation will develop."³⁴ So a state may not necessarily be reassured if its neighbor constructs strong defenses.

More central difficulties are created by the fact that whether a weapon is offensive or defensive often depends on the particular situation—for instance, the geographical setting and the way in which the weapon is used. "Tanks. . . spearheaded the fateful German thrust through the Ardennes in 1940, but if the French had disposed of a properly concentrated armored reserve, it would have provided the best means for their cutting off the penetration and turning into a disaster for the Germans what became instead an overwhelming victory."³⁵ Anti-aircraft weapons seem obviously defensive—to be used, they must wait for the other side to come to them. But the Egyptian attack on Israel in 1973 would have been impossible without effective air defenses that covered the battlefield. Nevertheless, some distinctions are possible. Sir John Simon, then the British Foreign Secretary, in response to the views cited earlier, stated that just because a fine line could not be drawn, "that was no reason for saying that there were not stretches of territory on either side which all practical men and women knew to be well on this or that side of the line." Although there are almost no weapons and strategies that are useful only for attacking, there are some that are almost exclusively defensive. Aggressors could want them for protection, but a state that relied mostly on them could not menace others. More frequently, we cannot "determine the absolute character of a weapon, but [we can] make a comparison. . . [and] discover whether or not the offensive potentialities predominate, whether a weapon is more useful in attack or in defense."³⁶

The essence of defense is keeping the other side out of your territory. A purely defensive weapon is one that can do this without being able to penetrate the enemy's land. Thus a committee of military experts in an interwar disarmament

conference declared that armaments “incapable of mobility by means of self-contained power,” or movable only after long delay, were “only capable of being used for the defense of a State’s territory.”³⁷ The most obvious examples are fortifications. They can shelter attacking forces, especially when they are built right along the frontier,³⁸ but they cannot occupy enemy territory. A state with only a strong line of forts, fixed guns, and a small army to man them would not be much of a menace. Anything else that can serve only as a barrier against attacking troops is similarly defensive. In this category are systems that provide warning of an attack, the Russian’s adoption of a different railroad gauge, and nuclear land mines that can seal off invasion routes.

If total immobility clearly defines a system that is defensive only, limited mobility is unfortunately ambiguous. As noted above, short-range fighter aircraft and anti-aircraft missiles can be used to cover an attack. And, unlike forts, they can advance with the troops. Still, their inability to reach deep into enemy territory does make them more useful for the defense than for the offense. Thus, the United States and Israel would have been more alarmed in the early 1970s had the Russians provided the Egyptians with long-range instead of short-range aircraft. Naval forces are particularly difficult to classify in these terms, but those that are very short-legged can be used only for coastal defense.

Any forces that for various reasons fight well only when on their own soil in effect lack mobility and therefore are defensive. The most extreme example would be passive resistance. Noncooperation can thwart an aggressor, but it is very hard for large numbers of people to cross the border and stage a sit-in on another’s territory. Morocco’s recent march on the Spanish Sahara approached this tactic, but its success depended on special circumstances. Similarly, guerrilla warfare is defensive to the extent to which it requires civilian support that is likely to be forthcoming only in opposition to a foreign invasion. Indeed, if guerrilla warfare were easily exportable and if it took ten defenders to destroy each guerrilla, then this weapon would not only be one which could be used as easily to attack the other’s territory as to defend one’s own, but one in which the offense had the advantage: so the security dilemma would operate especially strongly.

If guerrillas are unable to fight on foreign soil, other kinds of armies may be unwilling to do so. An army imbued with the idea that only defensive wars were just would fight less effectively, if at all, if the goal were conquest. Citizen militias may lack both the ability and the will for aggression. The weapons employed, the short term of service, the time required for mobilization, and the spirit of repelling attacks on the homeland, all lend themselves much more to defense than to attacks on foreign territory.³⁹

Less idealistic motives can produce the same result. A leading student of medieval warfare has described the armies of that period as follows: “Assembled with difficulty, insubordinate, unable to maneuver, ready to melt away from its standard the moment that its short period of service was over, a feudal force presented an assemblage of unsoldierlike qualities such as have seldom been known to coexist. Primarily intended to defend its own borders from the Magyar, the Northman, or the Saracen . . . , the institution was utterly unadapted to take the

offensive."⁴⁰ Some political groupings can be similarly described. International coalitions are more readily held together by fear than by hope of gain. Thus Castlereagh was not being entirely self-serving when in 1816 he argued that the Quadruple Alliance "could only have owed its origin to a sense of common danger; in its very nature it must be conservative; it cannot threaten either the security or the liberties of other States."⁴¹ It is no accident that most of the major campaigns of expansion have been waged by one dominant nation (for example, Napoleon's France and Hitler's Germany), and that coalitions among relative equals are usually found defending the status quo. Most gains from conquest are too uncertain and raise too many questions of future squabbles among the victors to hold an alliance together for long. Although defensive coalitions are by no means easy to maintain—conflicting national objectives and the free-rider problem partly explain why three of them dissolved before Napoleon was defeated—the common interest of seeing that no state dominates provides a strong incentive for solidarity.

Weapons that are particularly effective in reducing fortifications and barriers are of great value to the offense. This is not to deny that a defensive power will want some of those weapons if the other side has them: Brodie is certainly correct to argue that while their tanks allowed the Germans to conquer France, properly used French tanks could have halted the attack. But France would not have needed these weapons if Germany had not acquired them, whereas even if France had no tanks, Germany could not have foregone them since they provided the only chance of breaking through the French lines. Mobile heavy artillery is, similarly, especially useful in destroying fortifications. The defender, while needing artillery to fight off attacking troops or to counterattack, can usually use lighter guns since they do not need to penetrate such massive obstacles. So it is not surprising that one of the few things that most nations at the interwar disarmament conferences were able to agree on was that heavy tanks and mobile heavy guns were particularly valuable to a state planning an attack.⁴²

Weapons and strategies that depend for their effectiveness on surprise are almost always offensive. That fact was recognized by some of the delegates to the interwar disarmament conferences and is the principle behind the common national ban on concealed weapons. An earlier representative of this widespread view was the mid-nineteenth-century Philadelphia newspaper that argued: "As a measure of defense, knives, dirks, and sword canes are entirely useless. They are fit only for attack, and all such attacks are of murderous character. Whoever carries such a weapon has prepared himself for homicide."⁴³

It is, of course, not always possible to distinguish between forces that are most effective for holding territory and forces optimally designed for taking it. Such a distinction could not have been made for the strategies and weapons in Europe during most of the period between the Franco-Prussian War and World War I. Neither naval forces nor tactical air forces can be readily classified in these terms. But the point here is that when such a distinction is possible, the central characteristic of the security dilemma no longer holds, and one of the most troublesome consequences of anarchy is removed.

Offense-Defense Differentiation and Strategic Nuclear Weapons

In the interwar period, most statesmen held the reasonable position that weapons that threatened civilians were offensive.⁴⁴ But when neither side can protect its civilians, a counter-city posture is defensive because the state can credibly threaten to retaliate only in response to an attack on itself or its closest allies. The costs of this strike are so high that the state could not threaten to use it for the less-than-vital interest of compelling the other to abandon an established position.

In the context of deterrence, offensive weapons are those that provide defense. In the now familiar reversal of common sense, the state that could take its population out of hostage, either by active or passive defense or by destroying the other's strategic weapons on the ground, would be able to alter the status quo. The desire to prevent such a situation was one of the rationales for the anti-ABM agreements; it explains why some arms controllers opposed building ABMs to protect cities, but favored sites that covered ICBM fields. Similarly, many analysts wanted to limit warhead accuracy and favored multiple re-entry vehicles (MRVs), but opposed multiple independently targetable re-entry vehicles (MIRVs). The former are more useful than single warheads for penetrating city defenses, and ensure that the state has a second-strike capability. MIRVs enhance counterforce capabilities. . . .

What is most important for the argument here is that land-based ICBMs are both offensive and defensive, but when both sides rely on Polaris-type systems (SLBMs), offense and defense use different weapons. ICBMs can be used either to destroy the other's cities in retaliation or to initiate hostilities by attacking the other's strategic missiles. Some measures—for instance, hardening of missile sites and warning systems—are purely defensive, since they do not make a first strike easier. Others are predominantly offensive—for instance, passive or active city defenses, and highly accurate warheads. But ICBMs themselves are useful for both purposes. And because states seek a high level of insurance, the desire for protection as well as the contemplation of a counterforce strike can explain the acquisition of extremely large numbers of missiles. So it is very difficult to infer the other's intentions from its military posture. Each side's efforts to increase its own security by procuring more missiles decreases, to an extent determined by the relative efficacy of the offense and the defense, the other side's security. That is not the case when both sides use SLBMs. The point is not that sea-based systems are less vulnerable than land-based ones (this bears on the offense-defense ratio) but that SLBMs are defensive, retaliatory weapons. . . . SLBMs are not the main instrument of attack against other SLBMs. The hardest problem confronting a state that wants to take its cities out of hostage is to locate the other's SLBMs, a job that requires not SLBMs but anti-submarine weapons. A state might use SLBMs to attack the other's submarines (although other weapons would probably be more efficient), but without anti-submarine warfare (ASW) capability the task cannot be performed. A status-quo state that wanted to forego offensive capability could simply forego ASW research and procurement. . . .

When both sides rely on ICBMs, one side's missiles can attack the other's, and so the state cannot be indifferent to the other's building program. But because one side's SLBMs do not menace the other's, each side can build as many as it wants and the other need not respond. Each side's decision on the size of its force depends on technical questions, its judgment about how much destruction is enough to deter, and the amount of insurance it is willing to pay for—and these considerations are independent of the size of the other's strategic force. Thus the crucial nexus in the arms race is severed. . . .

Four Worlds

The two variables we have been discussing—whether the offense or the defense has the advantage, and whether offensive postures can be distinguished from defensive ones—can be combined to yield four possible worlds.

The first world is the worst for status-quo states. There is no way to get security without menacing others, and security through defense is terribly difficult to obtain. Because offensive and defensive postures are the same, status-quo states acquire the same kind of arms that are sought by aggressors. And because the offense has the advantage over the defense, attacking is the best route to protecting what you have; status-quo states will therefore behave like aggressors. The situation will be unstable. Arms races are likely. Incentives to strike first will turn crises into wars. Decisive victories and conquests will be common. States will grow and shrink rapidly, and it will be hard for any state to maintain its size and influence without trying to increase them. Cooperation among status-quo powers will be extremely hard to achieve.

There are no cases that totally fit this picture, but it bears more than a passing resemblance to Europe before World War I. Britain and Germany, although in many respects natural allies, ended up as enemies. Of course much of the explanation lies in Germany's ill-chosen policy. And from the perspective of our theory, the powers' ability to avoid war in a series of earlier crises cannot be easily explained. Nevertheless, much of the behavior in this period was the product of technology and beliefs that magnified the security dilemma. Decision makers thought that the offense had a big advantage and saw little difference between offensive and defensive military postures. The era was characterized by arms races. And once war seemed likely, mobilization races created powerful incentives to strike first.

In the nuclear era, the first world would be one in which each side relied on vulnerable weapons that were aimed at similar forces and each side understood the situation. In this case, the incentives to strike first would be very high—so high that status-quo powers as well as aggressors would be sorely tempted to preempt. And since the forces could be used to change the status quo as well as to preserve it, there would be no way for both sides to increase their security simultaneously. Now the familiar logic of deterrence leads both sides to see the dangers in this world. Indeed, the new understanding of this situation was one reason why vulnerable bombers and missiles were replaced. Ironically, the 1950s

would have been more hazardous if the decision makers had been aware of the dangers of their posture and had therefore felt greater pressure to strike first.

In the second world, the security dilemma operates because offensive and defensive postures cannot be distinguished; but it does not operate as strongly as in the first world because the defense has the advantage, and so an increment in one side's strength increases its security more than it decreases the other's. So, if both sides have reasonable subjective security requirements, are of roughly equal power, and the variables discussed earlier are favorable, it is quite likely that status-quo states can adopt compatible security policies. Although a state will not be able to judge the other's intentions from the kinds of weapons it procures, the level of arms spending will give important evidence. Of course a state that seeks a high level of arms might be not an aggressor but merely an insecure state, which if conciliated will reduce its arms, and if confronted will reply in kind. To assume that the apparently excessive level of arms indicates aggressiveness could therefore lead to a response that would deepen the dilemma and create needless conflict. But empathy and skillful statesmanship can reduce this danger. Furthermore, the advantageous position of the defense means that a status-quo state can often maintain a high degree of security with a level of arms lower than that of its expected adversary. Such a state demonstrates that it lacks the ability or desire to alter the status quo, at least at the present time. The strength of the defense also allows states to react slowly and with restraint when they fear that others are menacing them. So, although status-quo powers will to some extent be threatening to others, that extent will be limited.

This world is the one that comes closest to matching most periods in history. Attacking is usually harder than defending because of the strength of fortifications and obstacles. But purely defensive postures are rarely possible because fortifications are usually supplemented by armies and mobile guns which can support an attack. In the nuclear era, this world would be one in which both sides relied on relatively invulnerable ICBMs and believed that limited nuclear war was impossible. Assuming no MIRVs, it would take more than one attacking missile to destroy one of the adversary's. Preemption is therefore unattractive. If both sides have large inventories, they can ignore all but drastic increases on the other side. A world of either ICBMs or SLBMs in which both sides adopted the policy of limited nuclear war would probably fit in this category too. The means of preserving the status quo would also be the means of changing it, as we discussed earlier. And the defense usually would have the advantage, because compellence is more difficult than deterrence. Although a state might succeed in changing the status quo on issues that matter much more to it than to others, status-quo powers could deter major provocations under most circumstances.

In the third world there may be no security dilemma, but there are security problems. Because states can procure defensive systems that do not threaten others, the dilemma need not operate. But because the offense has the advantage, aggression is possible, and perhaps easy. If the offense has less of an advantage, stability and cooperation are likely because the status-quo states will procure defensive forces. They need not react to others who are similarly armed, but can

wait for the warning they would receive if others started to deploy offensive weapons. But each state will have to watch the others carefully, and there is room for false suspicions. The costliness of the defense and the allure of the offense can lead to unnecessary mistrust, hostility, and war, unless some of the variables discussed earlier are operating to restrain defection.

Table 1

	Offense Has the Advantage	Defense Has the Advantage
	1	2
Offensive posture not distinguishable from defensive one	Doubly dangerous	Security dilemma, but security requirements may be compatible
	3	4
Offensive posture distinguishable from defensive one	No security dilemma, but aggression possible	Doubly stable
	Status-quo states can follow different policy than aggressors	
	Warning given	

A hypothetical nuclear world that would fit this description would be one in which both sides relied on SLBMs, but in which ASW techniques were very effective. Offense and defense would be different, but the former would have the advantage. This situation is not likely to occur; but if it did, a status-quo state could show its lack of desire to exploit the other by refraining from threatening its submarines. The desire to have more protecting you than merely the other side's fear of retaliation is a strong one, however, and a state that knows that it would not expand even if its cities were safe is likely to believe that the other would not feel threatened by its ASW program. It is easy to see how such a world could become unstable, and how spirals of tensions and conflict could develop.

The fourth world is doubly safe. The differentiation between offensive and defensive systems permits a way out of the security dilemma; the advantage of the defense disposes of the problems discussed in the previous paragraphs. There is no reason for a status-quo power to be tempted to procure offensive forces, and aggressors give notice of their intentions by the posture they adopt. Indeed, if the advantage of the defense is great enough, there are no security problems. The loss of the ultimate form of the power to alter the status quo would allow greater scope for the exercise of nonmilitary means and probably would tend to freeze the distribution of values.

This world would have existed in the first decade of the twentieth century if the decision makers had understood the available technology. In that case, the European powers would have followed different policies both in the long run and in the summer of 1914. Even Germany, facing powerful enemies on both sides, could have made herself secure by developing strong defenses. France could also have made her frontier almost impregnable. Furthermore, when crises arose, no one would have had incentives to strike first. There would have been no competitive mobilization races reducing the time available for negotiations.

In the nuclear era, this world would be one in which the superpowers relied on SLBMs, ASW technology was not up to its task, and limited nuclear options were not taken seriously. . . . Because the problem of violence below the nuclear threshold would remain, on issues other than defense of the homeland, there would still be security dilemmas and security problems. But the world would nevertheless be safer than it has usually been.

Questions for Review

Is the security dilemma a basic cause of conflict in international politics? Is it ever possible to distinguish offensive weapons and political strategies from defensive ones?

Notes

- 1 Thus, when Wolfers argues that a status-quo state that settles for rough equality of power with its adversary, rather than seeking preponderance, may be able to convince the other to reciprocate by showing that it wants only to protect itself, not menace the other, he assumes that the defense has an advantage. See Arnold Wolfers, *Discord and Collaboration* (Baltimore: Johns Hopkins Press, 1962), p. 126.
- 2 Thomas Schelling, *The Strategy of Conflict* (New York: Oxford University Press, 1963), chap. 9.
- 3 Quoted in Fritz Fischer, *War of Illusions* (New York: Norton, 1975), pp. 377, 461.
- 4 George Quester, *Offense and Defense in the International System* (New York: John Wiley, 1977), p. 105.
- 5 Herman Kahn, *On Thermonuclear War* (Princeton, N.J.: Princeton University Press, 1960), p. 211 (also see p. 144).
- 6 For a general discussion of such mistaken learning from the past, see Jervis, *Perception and Misperception in International Relations* (Princeton, N.J.: Princeton University Press, 1976), chap. 6. The important and still not completely understood question of why this belief formed and was maintained throughout the war is examined in Bernard Brodie, *War and Politics* (New York: Macmillan, 1973), pp. 262–70; Brodie, “Technological Change, Strategic Doctrine, and Political Outcomes,” in Klaus Knorr, ed., *Historical Dimensions of National Security Problems* (Lawrence: University Press of Kansas, 1976), pp. 290–92; and Douglas Porch, “The French Army and the Spirit of the Offensive, 1900–14,” in Brian Bond and Ian Roy, eds., *War and Society* (New York: Holmes & Meier, 1975), pp. 117–43.
- 7 Some were not so optimistic. Grey’s remark is well-known: “The lamps are going out all over Europe; we shall not see them lit again in our life-time.” The German Prime Minister, Bethmann Hollweg, also feared the consequences of the war. But the controlling view was that it would certainly pay for the winner.
- 8 Quoted in Martin Gilbert, *Winston S. Churchill, III, The Challenge of War, 1914–1916* (Boston: Houghton Mifflin, 1971), p. 84.
- 9 Quester (fn. 4), pp. 98–99. Robert Art, *The Influence of Foreign Policy on Seapower*, II (Beverly Hills: Sage Professional Papers in International Studies Series, 1973), pp. 14–18, 26–28.

- 10 Konrad Jarausch, "The Illusion of Limited War: Chancellor Bethmann Hollweg's Calculated Risk, July 1914," *Central European History*, II (March 1969): p. 50.
- 11 Brodie, *War and Politics* (New York: Macmillan, 1973), p. 58.
- 12 President Roosevelt and the American delegates to the League of Nations Disarmament Conference maintained that the tank and the mobile heavy artillery had reestablished the dominance of the offensive, thus making disarmament more urgent (Marion Boggs, *Attempts to Define and Limit "Aggressive" Armament in Diplomacy and Strategy* [Columbia: University of Missouri Studies, XVI, No. 1, 1941]: pp. 31, 108), but this was a minority position and may not even have been believed by the Americans. The reduced prestige and influence of the military, and the high pressures to cut government spending throughout this period also contributed to the lowering of defense budgets.
- 13 Jon Kimche, *The Unfought Battle* (New York: Stein, 1968); Nicholas William Bethell, *The War Hitler Won: The Fall of Poland, September 1939* (New York: Holt, 1972); Alan Alexandroff and Richard Rosecrance, "Deterrence in 1939," *World Politics*, XXIX (April 1977): pp. 404–24.
- 14 Roderick Macleod and Denis Kelly, eds., *Time Unguarded: The Ironside Diaries, 1937–1940* (New York: McKay, 1962), p. 173.
- 15 For a short time, as France was falling, the British Cabinet did discuss reaching a negotiated peace with Hitler. The official history downplays this, but it is covered in P. M. H. Bell, *A Certain Eventuality* (Farnborough, England: Saxon House, 1974), pp. 40–48.
- 16 MacLeod and Kelly (fn. 14), p. 174. In flat contradiction to common sense and almost everything they believed about modern warfare, the Allies planned an expedition to Scandinavia to cut the supply of iron ore to Germany and to aid Finland against the Russians. But the dominant mood was the one described above.
- 17 Brodie (fn. 11), p. 179.
- 18 Arthur Balfour, "Memorandum," Committee on Imperial Defence, April 30, 1903, pp. 2–3; see the telegrams by Sir Arthur Nicolson, in G. P. Gooch and Harold Temperley, eds., *British Documents on the Origins of the War*, Vol. 4 (London: H.M.S.O., 1929), pp. 429, 524. These barriers do not prevent the passage of long-range aircraft; but even in the air, distance usually aids the defender.
- 19 See, for example, the discussion of warfare among Chinese warlords in Hsi-Sheng Chi, "The Chinese Warlord System as an International System," in Morton Kaplan, ed., *New Approaches to International Relations* (New York: St. Martin's, 1968), pp. 405–25.
- 20 Some American decision makers, including military officers, thought that the best way out of the dilemma was to abandon the Philippines.
- 21 Quoted in Elting Morrison, *Turmoil and Tradition: A Study of the Life and Times of Henry L. Stimson* (Boston: Houghton Mifflin, 1960), p. 326.
- 22 The United States "refused to consider limitations on Hawaiian defenses, since these works posed no threat to Japan." William Braisted, *The United States Navy in the Pacific, 1909–1922* (Austin: University of Texas Press, 1971), p. 612.
- 23 That is part of the reason why the Japanese admirals strongly objected when the civilian leaders decided to accept a seven-to-ten ratio in lighter craft in 1930. Stephen Pelz, *Race to Pearl Harbor* (Cambridge, Mass.: Harvard University Press, 1974), p. 3.

- 24 John Nef, *War and Human Progress* (New York: Norton, 1963), p. 185. Also see *ibid.*, pp. 237, 242–43, and 323; C. W. Oman, *The Art of War in the Middle Ages* (Ithaca, N.Y.: Cornell University Press, 1953), pp. 70–72; John Beeler, *Warfare in Feudal Europe, 730–1200* (Ithaca, N.Y.: Cornell University Press, 1971), pp. 212–14; Michael Howard, *War in European History* (London: Oxford University Press, 1976), pp. 33–37.
- 25 Quincy Wright, *A Study of War* (abridged ed.; Chicago: University of Chicago Press, 1964), p. 142. Also see pp. 63–70, 74–75. There are important exceptions to these generalizations—the American Civil War, for instance, falls in the middle of the period Wright says is dominated by the offense.
- 26 Geoffrey Kemp, Robert Pfaltzgraff, and Uri Ra'anana, eds., *The Other Arms Race* (Lexington, Mass.: D.C. Heath, 1975); James Foster, "The Future of Conventional Arms Control," *Policy Sciences*, No. 8 (Spring 1977): pp. 1–19.
- 27 Richard Challener, *Admirals, Generals, and American Foreign Policy, 1898–1914* (Princeton, N.J.: Princeton University Press, 1973); Grey to Nicolson, in Gooch and Temperley (fn. 18), p. 414.
- 28 Quoted in James Crowley, *Japan's Quest for Autonomy* (Princeton, N.J.: Princeton University Press, 1966), p. 49. American naval officers agreed with the Japanese that a ten-to-six ratio would endanger Japan's supremacy in her home waters.
- 29 E. L. Woodward and R. Butler, ed., *Documents on British Foreign Policy, 1919–1939*. 3d ser. III (London: H.M.S.O., 1950), p. 526.
- 30 Jervis (fn. 6), pp. 69–72, 352–55.
- 31 Quoted in Merze Tate, *The United States and Armaments* (Cambridge, Mass.: Harvard University Press, 1948), p. 108.
- 32 Boggs (fn. 12), pp. 15, 40.
- 33 Kenneth Hagan, *American Gunboat Diplomacy and the Old Navy, 1877–1899* (Westport, Conn.: Greenwood Press, 1973), p. 20.
- 34 Winston Churchill, *The Gathering Storm* (Boston: Houghton, 1948), p. 206.
- 35 Brodie, *War and Politics* (fn. 6), p. 325.
- 36 Boggs (fn. 12), pp. 42, 83. For a good argument about the possible differentiation between offensive and defensive weapons in the 1930s, see Basil Liddell Hart, "Aggression and the Problem of Weapons," *English Review*, 55 (July 1932): pp. 71–78.
- 37 Quoted in Boggs (fn. 12), p. 39.
- 38 On these grounds, the Germans claimed in 1932 that the French forts were offensive (*ibid.*, p. 49). Similarly, fortified forward naval bases can be necessary for launching an attack; see Braisted (fn. 22), p. 643.
- 39 The French made this argument in the interwar period; see Richard Challener, *The French Theory of the Nation in Arms* (New York: Columbia University Press, 1955), pp. 181–82. The Germans disagreed; see Boggs (fn. 12), pp. 44–45.
- 40 Oman (fn. 24), pp. 57–58.
- 41 Quoted in Charles Webster, *The Foreign Policy of Castlereagh, II, 1815–1822* (London: G. Bell and Sons, 1963), p. 510.
- 42 Boggs (fn. 12), pp. 14–15, 47–48, 60.
- 43 Quoted in Philip Jordan, *Frontier Law and Order* (Lincoln: University of Nebraska Press, 1970), p. 7 also see pp. 16–17.
- 44 Boggs (fn. 12), pp. 20, 28.