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## 6.

# THE INTRACTABILITY OF STRATEGIC SURPRISE

Granting that Clausewitzian friction prevented Coalition forces from achieving important operational-strategic goals despite Desert Storm's lop-sided outcome, why should one take the next step and infer that technological advances in the future will be unable to find any enduring solution to the historical problems of friction? The direct evidence just presented of general friction's evidently undiminished persistence as recently as 1991 is of little avail regarding friction's future role under the premise of technological progress. Direct, empirical evidence from wars still to be fought, after all, is unobtainable. Nonetheless, reasons can be found in fields as diverse as economics, evolutionary biology, and nonlinear dynamics for suspecting that many real-world processes, including physical ones, can exhibit structural unpredictability. [\(Note 1\)](#) Since this sort of inherent unpredictability seems to be part and parcel of what Clausewitz subsumed under his *Gesamtbegriff einer allgemeinen Friktion*, confirmation of similar, if not related, unpredictabilities in fields far from war would begin to build a case for the conclusion that Clausewitzian friction will persist regardless of technological progress. The case built on the ubiquity of unpredictable processes will not, of course, be a direct one. Like evolutionary biologists, who cannot directly observe the workings of natural selection, we shall have to rely on indirect arguments. [\(Note 2\)](#) The first of these indirect arguments arises from considering the prewar problem of avoiding strategic surprise.

Japan's 7 December 1941 attack on Pearl Harbor transformed the problem of strategic surprise into a deeply personal experience for an entire generation of Americans. [\(Note 3\)](#) The horrific consequences of a surprise Soviet nuclear attack on the United States, which was a constant feature of the four-decade Cold War between the U.S. and the Soviet Union, reinforced the primacy of this problem for another generation. Yet, notwithstanding all the efforts that American leaders, defense analysts, intelligence experts, and military planners have put into "solving" the problem of strategic surprise, the literature on the subject, as well as history since 1941, suggests that the problem is intractable.

The classic 20th-century account of how strategic surprise can occur despite a wealth of intelligence on enemy actions and intentions remains Roberta Wohlstetter's 1962 study of Japan's surprise attack on the American fleet at Pearl Harbor on 7 December 1941. "Never before," she concluded after sifting through

the sources available to the American government during the months preceding the attack, "have we had so complete an intelligence picture of the enemy." [\(Note 4\)](#) The available "signals," meaning clues, signs, or other pieces of evidence about Japanese moves or intentions, [\(Note 5\)](#) were abundant. An American cryptanalyst had broken the top-priority Japanese diplomatic code (known as MAGIC), allowing the U.S. government to listen to a large portion of the privileged communications between Tokyo and major Japanese embassies such as Berlin, Rome, and Washington; cryptanalysts had also achieved some success in reading the codes used by Japanese agents in major American cities and ports; American naval leaders possessed traffic analysis on Japanese naval and military codes; extremely competent on-the-spot political and economic analysis was furnished by the U.S. embassy in Tokyo; additional classified information was provided by British intelligence (although there was a tendency at this stage among both the British and Americans to distrust each other's privileged information); and, there were various unclassified sources of information, including very accurate reporting and predictions on the Japanese political scene by the overseas correspondents of several major American newspapers. [\(Note 6\)](#) "All that we lacked was the date of December 8 [Tokyo time], a precise list of targets, and, most important, an ability to estimate correctly Japanese desperation and daring." [\(Note 7\)](#) Yet, despite this plethora of information, the Japanese attack on Pearl Harbor "was in fact a complete surprise to the United States." [\(Note 8\)](#)

How could so complete a surprise occur in the presence of such a rich array of signals? Roberta Wohlstetter's answer is that both the relevant signals, as well as the meaning that came to be attached to them after the Japanese attack, were embedded in an atmosphere of "buzzing and blooming confusion" or "noise" that made their identification and interpretation extremely difficult and uncertain given "the very human tendency to pay attention to the signals that support current expectations about the enemy." [\(Note 9\)](#) In 1941, this phenomenon of background noise went far beyond the "natural clatter of useless information and competing signals." The attack on Pearl Harbor was preceded by previous alerts that turned out to be false alarms that numbed subsequent reactions to further signals of potential danger; American attention in Hawaii focused more on sabotage than attack due to the prevailing hypothesis of a probable Japanese attack on Siberia; and, the Japanese were successful in concealing certain key signals while introducing misleading ones into American collection systems. [\(Note 10\)](#) As for the issue of understanding the meaning of the signals that were (in retrospect) relevant, American assessments of Japanese ability and willingness to accept the risks of an attack on the U.S. fleet at Pearl Harbor were quite different from those that the Japanese in fact embraced in their war planning and decision making. [\(Note 11\)](#) Thus, even if right "signals" could have been identified amid the surrounding "noise," it is far from obvious that they would have been correctly understood at the time.

The most telling example of the collective difficulties was the arrival in Manila, some 9-10 hours before Japanese aircraft struck there, of the message that Pearl Harbor had been attacked. Although the significance of this signal seems crystal clear in retrospect, at the time it failed to provide "an unambiguous signal of an attack on the Philippines." [\(Note 12\)](#) Among other reasons, American commanders in the Philippines did not respond with alacrity to the signal on the presumption that the Japanese did not have the means for immediate air attack of the Philippines. The Japanese Zero fighter was believed by American intelligence, mistakenly it turned out, to lack the range to reach U.S. airfields

in the Philippines from land bases on Formosa; and the alternative, using carriers, was ruled out because all six of Japan's large carriers were presumed, correctly in this case, to have been committed to the attack on Pearl Harbor. [\(Note 13\)](#)"There is a difference, then, between having a signal available somewhere in the heap of irrelevancies, and perceiving it as a warning; and there is also a difference between perceiving it as a warning, and acting or getting action on it." [\(Note 14\)](#)

From such discouraging evidence and observations Wohlstetter concluded that the problem of avoiding strategic surprise was essentially intractable. we have found the roots of . . . surprise in circumstances that affected honest, dedicated, and intelligent men. The possibility of such surprise at any time lies in the conditions of human perception and stems from uncertainties so basic that they are not likely to be eliminated, though they might be reduced. . . . The precautions of secrecy, which are necessary even in a democracy to keep open privileged sources of information, may hamper those who have the power of decision. Moreover, human attention is directed by beliefs as to what is likely to occur, and one cannot always listen for the right signals. [\(Note 15\)](#)

Has subsequent experience with strategic surprise revealed credible reasons for questioning Roberta Wohlstetter's 1962 implication that the problem may be intractable? From an evidentiary standpoint, the historical record is clear: strategic surprise, like general friction, has continued to recur despite prodigious efforts by governments and intelligence services to avoid it. In 1973, for instance, the Israeli government was as surprised by timing, place, and method of the coordinated Egyptian-Syrian attack on the morning of 6 October as the Russians had been by the Nazi invasion of 22 June 1941 (Operation Barbarossa). [\(Note 16\)](#) Worse, U.S. intelligence, though aided by such technical advances as satellite reconnaissance, was every bit as surprised by the Arab attack in 1973 as the Israelis were. [\(Note 17\)](#) Much as in 1941, a number of relevant signals were received, but the "buzzing and blooming" noise, reinforced by active and successful Arab deception, obscured their significance while various explanatory hypotheses for the Arab force build-ups being observed so complicated interpretation that, as late as 5 October, "no [Israeli] national-level leader thought that war was imminent." [\(Note 18\)](#) A similar picture of the problems of warning and decision emerges from a careful review of the noise, wishful thinking, ingrained hypotheses, and ambiguities of meaning that obscured Saddam Hussein's true intentions in the months preceding Iraq's seizure of oil-rich Kuwait in August 1990. Particularly striking in this case is the fact that the day before the invasion, the Kuwaiti Emir and top officials of Kuwait's foreign ministry remained firmly convinced, despite the receipt of top-secret U.S. photographs that plainly showed the massing of Iraqi forces on Kuwait's borders, that Saddam Hussein was bluffing and could, once again, be bought off as he had been in prior crises as far back as July 1961. [\(Note 19\)](#)

It should not be surprising, then, that later students of strategic surprise, including Richard Betts, Avi Shlaim, and Ephraim Kam, have agreed with Roberta Wohlstetter's original conclusion that the problem is intractable. [\(Note 20\)](#) This consensus not only reflects the lessons of history, but general agreement on the degree to which the root sources of the intractability lie in uncertainties and aspects of human perception and judgment too fundamental to eliminate once and for all. Direct evidence of enemy intentions is usually lacking, and warning indicators are ambiguous; conceptions affecting the meaning attached to the signals received often persist stubbornly in the face of contradictory evidence; and, the

strong interdependency among many aspects of surprise attack means that one wrong hypothesis can quickly lead both intelligence collection and interpretation down the wrong path. [\(Note 21\)](#) Among other reasons, the attackers can always change their minds at the last moment, as the Arabs are now thought to have done in May 1973, thereby making surprise far harder for the potential victim to avoid at a later date. [\(Note 22\)](#)

How does this appreciation of the likely impossibility of eliminating any and all prospects of falling victim to a future surprise attack help one argue that general friction, too, is unlikely to be eliminated from or greatly diminished in future conflict? The first point to be made is one of consistency. Despite the persuasive historical evidence that strategic surprise has been a recurring problem in the past, it remains conceivable that it might be eliminated by technological advances we cannot yet clearly foresee or, perhaps, even imagine. What would be logically untenable, however, is to hold that either surprise or friction is tractable but not the other. If there is no ironclad, bullet-proof guarantee against being the victim of a surprise attack in the future, then manifestations of Clausewitzian friction will also undoubtedly continue to form the atmosphere of war, even if their severity can be reduced.

The force of this argument springs from recognizing the causal similarities underlying both surprise attack and certain aspects of general friction. More than a few twentieth-century wars have begun with surprise attacks, and their avoidance at the grand-strategic level tends, not unreasonably, to be categorized as a pre-conflict problem. Still, at the levels of operational art and tactics, surprise attacks also occur within ongoing conflicts. Setting aside the unique threshold associated with war initiation, uncertainties in the information on which action is based, danger, chance, and the unpredictability of two-sided interaction appear to be as much sources or causes of the prewar surprise-attack problem as they are of general friction during subsequent military operations. The possibility of being subjected to a surprise attack that initiates conflict can be viewed, therefore, as a prewar manifestation of general friction. And because the underlying cognitive challenges of avoiding surprise are fundamentally the same on either side of the arbitrary threshold separating peace from war, the future tractability of surprise attack at the outset, as well as the related aspects of general friction during wartime, can be viewed as opposite sides of one and the same problem. If either problem is intractable, then so is the other, and all evidence to date strongly suggests that eliminating all possibility of surprise attack is, for practical purposes, as intractable as the class of computationally complex problems represented by the task of calculating the shortest route connecting each of some finite number of cities. [\(Note 23\)](#)

Does the intractability of strategic surprise shed any light on the prospective magnitude of friction in future war? Certainly in the twentieth century, the potentially catastrophic consequences of being surprised do not appear to have lessened. The Soviet Union eventually recovered from the surprise of Operation Barbarossa and went on to play a major role in the eventual Allied defeat of Nazi Germany, but at a horrific cost in human and societal damage, especially during the initial German offensives. The Israelis, too, were able to recover from the surprise of the combined Egyptian-Syrian attack on 6 October 1973 but, again, at considerable cost. Both the Soviet Union in 1941 and Israel in 1973 stood for a time on the brink of catastrophic defeat as a result of being surprised. The likely adverse consequences of an all-out Soviet strategic-nuclear attack on the United States at any time during the Cold War would have

undoubtedly surpassed those that flowed from either the surprise German attack of 22 June 1941 or the surprise Arab attack of 6 October 1973. Hence the frictional potential of surprise either at the outset of, or during, war does not appear to have abated discernibly over the last six decades.

As for the foreseeable future, precision-guided weapons offer the potential for surprise attacks or operations to be more damaging than even in the recent past. More to the heart of the matter, if the roots of surprise lie in aspects of human perception and uncertainties too basic for technological advances to affect, much less eliminate, then it is difficult to see why this source of friction will diminish in the magnitude of its prospective effects on future war.

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