

## THEORIES OF THERMO-NUCLEAR DETERRENCE

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A CONSIDERABLE number of books about military strategy and the supposedly scientific techniques of war-gaming have been published in the last three years, mainly in the United States but also in the Soviet Union. The appearance of this literature has provoked a great deal of critical comment and expert assessment, but none of it has come from socialist sources. Considering the influential status of this strategic writing and the new modes of thinking about war and peace problems that it has stimulated, this omission of socialist concern has been widely regretted. It has been popular on the Left but not particularly appropriate to dismiss the new theorists of war-gaming as apolitical engineers, *recherché* capitalist apologists, or power-drunk Ph.D.s in search of clever solutions to the Cold War. Unfortunately, the disadvantage of this rejection has been doubled-edged. First, it has concealed from socialist readers the sophisticated tone of the strategic literature and the great political influence achieved by the New Civilian **Militarists**.<sup>1</sup> Second, it has deflected socialist theory from **seeking** an equal competence and technical mastery over the intricate problems of war and peace. As a result, the Left has been unable to challenge the deterrence strategists on their own ground, and it has been unable to formulate its own strategic proposals with systematic **rigour**. In short, the idealistic—if not pacifist—posture of the Left has excluded it from the scientific debates over the Balance of Terror and the technical obstacles encountered on the road to disarmament.

It should be apparent that the Left's **thinking** about arms control and disarmament policy must now begin to emulate the extensive and technical analysis of the deterrence strategists. In striving to recast its thinking about the intricacies of security and disarmament proposals, however, the Left must begin by re-appraising three particularly unpleasant but pervasive factors in the contemporary world. However much they are deplored, it is important that the reality of their existence should be recognized and not shrugged aside.

(a) The generally prevailing modes of public opinion have been so powerfully conditioned by the "permanent crisis" and Balance of Terror syndrome of the Cold War that a clear majority in the electorate has come to accept the economic costs and political axioms of the arms race as an inescapable, necessary evil. In both Britain and the United States (and, with great probability, in the Soviet Union too), a far greater confidence has been **granted** to the computer technologists in the

defence establishments than to the idealist or neutralist critics who have attempted to debunk the Establishments' expertise. Despite the fiascos of **Skybolt**, **Blue Streak**, and other costly miscalculations, it would be difficult to demonstrate that the public has lost its faith in the technical rationality of the deterrence engineers. It has frequently expressed critical views about them but it has not transferred its faith in military technology per se to the anti-technical conjectures of their political opponents.

(b) The defence establishments have preserved their massive ascendancy over public opinion by adjusting to two popular though conflicting fixations; first, the rigid necessity to guarantee (if not maximize) the security of the nation-state against all conceivable forms of attack, and second, the hesitant demand that the arms race should be curtailed before an unprecedented disaster erupts. The testimony presented to the United States Senate recently demonstrated both of these fixations. The joint Chiefs of **Staff** testified that the West currently enjoys an adequate supremacy over the Soviet Union in terms of nuclear stockpiles and weapons research. Senators were assured that nuclear testing in the atmosphere could now be halted since the astronomic overkill and diverse weapons capabilities of the United States could deter any foreseeable act of calculated aggression. Although the official policy of East and West is to promote General and Complete Disarmament (or "G.C.D." as it now appears on State papers), the Senate was reassured that the Blueprint for Peace *and* G.C.D. formulated by the U.S. Arms Control and Disarmament Agency (or A.C.D.A.) was in no way designed to limit the vast increase in military strength that has already been budgeted. Secretary **McNamara** testified (in March 1963) that the cautious and limited test-ban could help to stabilize the arms race without causing the slightest impairment to the total nuclear preponderance of the United States and the Senate insisted that his assertion should be proven. The paradoxical fixation of the Cold War is still operative today, notwithstanding the improvement of East-West relations. The basic Western posture remains that of "not trusting the Russians," of negotiating from a posture of maximum strength, and of straining furiously to achieve that illusory safeguard—a maximum nuclear security. From the continued size of the N.A.T.O. arms budgets it would seem that these premises are still widely shared.

(c) The timid and half-hearted adoption of G.C.D. by the defence establishments has put the Left at a marked disadvantage. It now has to demonstrate that its proposals for peace are instrumentally superior to those of the military technicians and that its recommendations are likely to excel in speed, security, and conviction in attaining a disarmed world. In recent years the Left has failed to meet the challenge. Its proposals—for disengagement, regional disarmament, inspection procedures, strengthening the U.N., or a neutralist dismemberment of **military** alliances—have been dismissed upon the grounds of technical

inadequacy. Tragically, the supremacy of argument has remained so far with the "crackpot realists," as C. Wright Mills has dubbed the military rationalizers. All the protest that the Left could exercise has not succeeded in deflecting one logistic equation. The unrealistic and apolitical premises of their "scenarios" and jargon-laden projections have been exposed by writers as competent as P. M. S. Blackett and Captain **Liddell Hart**,<sup>2</sup> but no convincing strategy has yet been devised to take their place. Hence, the Left has excluded itself from an effective role in the technical and influential discussions of security and disarmament strategies.

## I

The first task in coping with the strategic recommendations of the New Civilian Militarists is to distinguish carefully between the schools of thought that they have formed, since it helps in no way to lump the whole lot into one category of fanatic nuclear gamblers. The most alarming school among them is presently the least influential. It numbers those crusading pedagogues and obsessed Admirals who reject the No-Win theory of nuclear stalemate and who dedicate themselves to a "forward strategy" of ultimate victory over Communism. They assert religiously that all "leftists" must be threatened and never aided, that the Free World (symbolically capitalized to include any pliable dictatorship, however repellent) must be defended at any price and upon any brink, that co-existence and accommodation will lead not to the survival but to the enslavement of humanity, and that an invincible nuclear supremacy at all times must be maintained to preserve and expand the Manifest Destiny of capitalist society. It must be emphasized again that these intolerant Cold Warriors form a distinct though sensationalist minority. For all their mystique of overkill, exchange-of-cities gambits, and their advocacy of underground schools and fall-out shelters, they were unable to halt such marginal gains as the establishment of the A.C.D.A. (a significant omission from the British administration) or of a test-ban treaty. Potentially powerful on the political scene as a super-patriot and extreme Right phalanx, their operational proposals are too crude and insanely risky to influence the Pentagon. Their voices are often heard in Congress and the Press but **McNamara** has listened far more closely to his "whiz kids" than to the fanatical devotees of preventive war and massive retaliation. Were Senator Goldwater to be installed in the White House, though, there would be many opportunities to reverse this trend.<sup>3</sup>

The far more influential and scholarly groups of war-gaming theorists are based chiefly upon the Ivy League universities and the Rand Corporation. They can be most usefully categorized according to their notions of nuclear conflict and by their recommended ploys of strategic retaliation, graduated deterrence, and limited war. As system-building

economists or computer-wielding statisticians they cannot be accused of working exclusively for missile companies or the military establishment since much of their work has been concerned with complex proposals to stabilize the arms race and to promote the long-term confidence required for G.C.D. As a group, they have all been concerned with technical measures to preserve the status quo, and in their cautious explorations they have shared three common assumptions:

(a) That nuclear war would be unprecedented but not unlimited; that it need not erupt instantaneously into mass annihilation; that both "camps" have built separate first- and second-strike tactical forces, in order to control and graduate the use of nuclear terror; and hence that nuclear weapons may have to serve as psychological instruments of foreign policy or—if war should break out—as a nuclear insurance against unlimited annihilation.

(b) That nuclear preparedness alone can deter either "camp" from initiating major acts of aggression (since the U.N. and its Third World voting majority cannot pretend to act as an effective world government); that either "camp" currently enjoys the power to exact an "unacceptable degree of damage" upon the civilian and military resources of its opponent, and thus it cannot easily surrender its forceful restraining power; hence, any scaling down of the arms race must involve reciprocal and carefully measured reductions in the posture of the central caryatids of the nuclear edifice.

(c) That neither "camp" is likely to initiate policies of aggression or grave provocation if a technological parity in their striking power and stockpiles remains constant; that this bi-polar Balance of Terror will stabilize the international environment and permit either "camp" to counter limited ploys (as in Cuba) with carefully limited, flexible responses; and that either side cherishes this concept of nuclear symmetry as a holding operation with which to "buy time" while consolidating its hegemony over the Third World with economic, political, or paramilitary intervention. In short, that maintaining a symmetrical capacity to wage nuclear war is the only guarantee for a secure peace, at least in the present era.

The basic cleavage between these status quo technicians occurs in the tone of their policy recommendations. The more confident (and better known), like Herman Kahn and Henry Kissinger, insist upon a massive and multi-purpose nuclear force that can be used in a diversity of circumstances. Not only should such a force deter a major act of aggression but it should also be sufficiently flexible and tactical to "penalize" local assaults or to secure limited victories. This posture, called Counterforce, assumes that America's first-strike missiles can deal cleanly and accurately with a conventional attack (as at **Dien-bienphu**) or with a limited nuclear assault (as the N.A.T.O. command supposedly anticipates on the **Elbe**). Further, it posits that the deeply protected, second-strike weapons of massive retaliation should always

be left in reserve; they should be scattered (in Polaris submarines), "hardened" (in underground silos), and be so numerous that no Soviet first-strike could cripple them. Since this relative invulnerability of second-strike I.C.B.M.s has already been assured, it is assumed that nuclear-tipped, first-strike or tactical missiles will be able to scatter the initial wave of an on-coming assault or to impose a "pause" in which each camp could decide whether to escalate into a full-scale nuclear war or not. As one gambit, it is suggested that the provision of shelters and the clear distinction between first (offensive) and second (retaliatory) strike arms could be used to fight a "broken back" war. This would open with a nuclear exchange—such as a tit-for-tat bombardment of military installations or prestige targets—but that reasonable compromises would be reached before it escalated into the limitless massacre of an exchange of cities (counter-insurance) mode of conflict. The rival school, of Finite Deterrence, argues that this projection is unrealistic and that the present accumulation of first-strike weapons can only be provocative and destabilizing. This school insists that stability can best be preserved by maintaining no more than a well-protected and non-tactical second-strike force to be used exclusively for ultimate resort retaliations against an aggressor's cities. The Counterforce advocates reply that this would deny the United States any possibility of a tactical or flexible nuclear response against serious but limited offensives (as, again, might occur in a massive assault upon Berlin). They object, too, to the Finite Deterrence proposals that all limited aggressions must be met with non-nuclear opposition and that all first-strike systems should now be scrapped. Such innovations, they argue, would prohibit the West from launching "teaching strikes" or limited nuclear assaults; it would also prevent the West from proving that its deterrent was "credible" and that it would truly dare to use its stockpiles if it were gravely provoked. It is far more advantageous, claim the Counterforce exponents, if the United States maintains its present doctrines of "nuclear strategic supremacy" together with a tactical "mix" of weaponry; these will allow the second-strike defences to outnumber the Soviets' first-strike capability, while providing an additional "mix" of nuclear, conventional, and paramilitary force levels to prevail in limited conflicts.<sup>4</sup>

The common understanding of both schools, and also of the intermediate positions between them, is that threats of violence in the Cold War can only be restricted—not suddenly eradicated—by graduated, reciprocal schemes of arms control. This understanding is extremely dangerous since it is based upon such questionable premises as: (a) the maintenance of permanent equilibrium in the Balance of Terror; (b) the preservation of the nuclear monopoly of a tightly balanced, bi-polar world; and (c) the gradual emergence of a political *détente* that will allow all 120 nations in the world—including such absentees from the United Nations as China—to adjust slowly to a new, unruffled

equilibrium condition of G.C.D. Each of these premises is unrealistic and, consequently, disarmament appears highly improbable. In their great fear of losing the West's present advantage of "nuclear supremacy," the arms control strategists have been forced back again into simulation experiments that rely upon sophisticated equations of psychological and military deterrence, and their concern for a disarmed peace has receded even further. The best way to disarm, they argue, is not to disarm but to stabilize and augment the weapons build-up in order to perpetuate the status quo. This emphasis upon arms control schemes and a logistic equilibrium allows the "idealists" to indulge in talk about disarmament while the "realists" add to the annual purchases of military **hardware**.<sup>5</sup>

Significantly, each of the deterrence schools has followed the course of projecting stereotypes of an enemy, or of enemies, that are so motivated by distrust that they are incapable of working co-operatively towards that joint security gamble, a disarmed world. The rival defence establishments have accepted these arguments without protest. Although each is presently prepared to agree that it won't strike first unless the other does, they have refused to delimit the conditions under which nuclear weapons will never be employed. Hence each Establishment has hastily augmented its already terrifying overkill and each has refused to believe that G.C.D., or even partial disarmament, can present a secure or reliable **proposition**.<sup>6</sup> This attitude is currently consistent with the image that each nuclear Establishment bears of itself. Neither sees itself as a potential nuclear aggressor and yet neither wishes to maintain the self-accelerating arms race. Unfortunately, the historic phobias of East and West have reinforced the suspicions that the opposing "camp" will not abide by a strictly economic and ideological form of competitive co-existence. Hence, both have refused to negotiate from anything less than a vantage point of maximum military strength.' This does not imply that the status quo "camp" (usually the West) or the challenger assume that nuclear conflict can be decisively—but cautiously—employed to secure their political objectives in the Cold War. Rather, it reflects their neurotic belief that a flexible and convincing form of "nuclear predominance" will invariably paralyse any opponent's will to attack. This limited type of victory will suffice for the strategists of terror since it will allow the predominant power to determine the environmental conditions of co-existence without fear of surprise attack or political challenge.

## II

If it is to succeed effectively, the criticism of this psychological and military tinkering with the status quo must achieve a sufficient competence to **challenge** the deterrence strategists at their own level. It is not enough to challenge them exclusively at the level of political **generaliza-**

tion and to omit the technical considerations that form the premises upon which their theoretical systems have been established. This single-level attack, in any case, usually leads towards the same stalemate that currently inhibits the Left's criticism. The strategists inevitably claim that their concern with an orderly reduction of military tension obliges them to investigate and prepare against any *possible* contingency—such as the failure of an arms control scheme or the unsettlement of a diplomatic agreement. By contrast, most socialist writers claim that they are concerned with the *probability* of political compromises—such as the improved relationships of the Cold War—and that there is no need for them to prepare strategic "fall back" positions in case confusion or military conflict should suddenly occur. The debate over disengagement in Central Europe has demonstrated the impasse between these two styles of concern. The socialists have insisted that a Soviet "salami slice" encroachment upon Western Europe is so improbable that a withdrawal of American and Soviet forces should be speedily arranged. The strategists have demurred on the grounds that any of the N.A.T.O. or Warsaw Pact satellites might easily rupture a European *détente* after Soviet or American occupation troops had been removed; the chance of military violence then erupting would be so strong that security measures must be prepared to cope with any possible dangers. In fact, the strategists have accused their opponents of adopting an unrealistic and irresponsible position because they have refused to maintain the debate over military defence policy at their level of security concern.

Instead of adopting this traditional socialist position of political optimism, therefore, it might be helpful if the strategists' own premises are examined and their concern with guarding against all *possibilities* is re-appraised. It is a difficult and lengthy task, of course, to examine such premises as their assumption of the permanent symmetry of the Balance of Terror. A start can be made by listing some of the technical weaknesses in their nuclear syllogisms and by relating these criticisms to the political problems of co-existence. The purpose of doing so is that of demonstrating that the strategic gambits of deterrence are based upon technical inadequacies—and not simply upon political miscalculations. The primary focus of political calculation is that of *probability* and it is difficult to disprove empirically the charge that most socialist prognostications are infused with prejudicial (and highly optimistic) value judgments. By contrast, the critique of the strategists' premises can be technically and demonstrably objective. Thus, it should be more effective to list the deficiencies in their own position—and with their own arguments—than to argue in hypothetical terms that the Left's world view is more or less reasonable in projecting *probabilities* of future developments in the Cold War. A very brief list of the "indelicatè premises" of the Balance of Terror could include the following criticisms.<sup>8</sup>

(a) *Stability*. A dozen or more nations will acquire some form of

nuclear weapons in the next decade and nuclear arsenals will grow not only in size but in their refinements of accuracy, invulnerability, and annihilatory power. Given even the most advantageous stand-off possible between East and West, it will become increasingly difficult to use these weapons to stabilize the status quo, to eradicate the possibility of blackmail threats, to contain brush-fire wars, or to prepare the world for limited schemes of arms control and partial disarmament.<sup>9</sup> If political stability or military equilibrium are the primary goals of deterrence theory, then the balancing of mutual powers of nuclear intimidation presents a very insecure means of establishing such conditions.

(b) Credibility. As nuclear weapons become more sophisticated and widespread their owners will encounter a mounting frustration. It will become so dangerous for any nation to use even tactical and sub-nuclear arms—lest their use should provoke a rapid escalation into uncontrollable or global nuclear war—that they will experience the same "nuclear nullity" that inhibits the present nuclear nations. In such a situation, the nuclear countries will be scared to wield their power, and threats of opponents will have to be deterred with conventional or paramilitary reprisals rather than with tactical or massive retaliation. The temptation to unleash nuclear force, though checked, will reduce all hopes of stabilizing the status quo since most aggression will have to be met with threats to resort to nuclear punishment.

(c) Rationality and Predictability. All the gambits and syllogisms of deterrence theory are based upon the postulation of a historical rationality in human affairs. This assumes that aggressors will never attack before they have programmed several hundred intelligence variables through a computer; that aggressors, deterring forces, poorly armed victims, and collective security alliances, will each read the others' intentions with predictable accuracy; that none will resort to unwarranted or disproportionate responses of violence; and that each nation will participate in these esoteric "rules of the game" in order to curtail deviant or unpremeditated responses. Considering the multiple points at which miscalculation could occur, it is impossible for a psychological and military equilibrium to be built with sufficient clarity and rationality to encourage disarmament. (Even in a game like poker, where the rules are known to all players, the possibility of random cheating or misperception of bidding eradicate all elements of predictive behaviour).

(d) Technological Parity. There have been costly research breakthroughs into three new generations of weapons in the last eighteen years: the fission and then the fusion bomb, followed by the Intercontinental Ballistic Missile. It is improbable (as President Kennedy frankly admitted at his Press conference in August 1963) that defence systems against nuclear attack can be seriously improved, let alone perfected; but the possibilities of improving the accuracy, yield-to-

weight ratios, zig-zag trajectories, and **annihilatory** impact of offensive missiles, it seems, are even more terrifying than the prospects of chemical or bacteriological warfare. Each nuclear power will have to retain so great a suspicion of the research expenditures and results of its opponents that the political **confidence** required for G.C.D. will surely be stunted (e.g. the first country to develop a continent-wide rainbow bomb or neutron device could paralyse all the radio and electronic systems of its rivals and thus seize the considerable advantages of surprise for a full-scale or blackmail attack).

(e) The Nth Country Dispersion. The gas-centrifuge and other fissionable processes have considerably simplified and cheapened the development of weapons-grade plutonium. If unreliable proxies, satellites, or neutrals were able to adapt even the crudest of nuclear weapons for their conventional delivery systems, the prospects of political stabilization (e.g. in the Middle East) might finally disappear. The nuclear "super-powers" would certainly lose their oligarchic authority to allocate spheres of influence, reciprocal arms control "deals," or summit *détente* compromises, and they would have to surrender their blackmail control over irredentist régimes in the Third World.

(f) Accidental War. A geometric progression in the possibilities of mechanical, communications, or human failures would result from the increased size and dispersion of nuclear stockpiles. No matter how sophisticated the electronic "locking devices" and fail-safe mechanisms devised to limit unauthorized behaviour or miscalculated responses, the dangers of accidental war can only proliferate.<sup>10</sup> As Herman Kahn has suggested, perhaps disarmament will never become a serious political prospect until at least one grave breakdown has occurred; one must hope that, if this is true, the unintended eruption can be as quickly contained as the novel, *Fail-Safe*, has depicted (i.e. "only" Moscow and New York were obliterated).

(g) Thermonuclear Nationalism. As the equilibrium of deterrence grows more precarious it is possible that ideological hatred and popular distrust will develop into psychotic impediments. Political and **diplomatic** compromises might become less and less acceptable, massive expenditures on fall-out shelters will reduce populations to a submissive condition, and the "hard-line" military directorate will replace political leaders as custodians of the garrison state. It is not inconceivable that public opinion would be so stampeded in a destabilizing crisis (as occurred in the United States in August 1961) that it would either demand hysterical action or that it would surrender its judgment to the more determined and "scientific" bellicosity of the defence Establishments. As in the limited wars in South Vietnam or Algeria, the Establishment would be left to decide freely when the campaign should escalate and when the use of violence for political objectives was to be permitted. The notion of fighting to preserve a representative form of

democratic government would be swept aside when the military Establishment demanded—as it must—that it alone enjoys the intelligence data required to evaluate security challenges (e.g. an attack upon Turkey or Iran) or to devise "improved war outcomes."

### III

An expert and systematic investigation of these technical factors would unquestionably deflate the prestige and academic pretentiousness of war-gaming and deterrence strategy. A few attempts have been made to challenge the military syllogists on their own ground, but in a non-political manner; significantly, most of the critiques have been written by scholars and system-theorists working without classified data and outside the **Establishment**.<sup>11</sup> The chief thrust of their work has been critical rather than constructive, since their competence for questioning the **rigour** of the deterrence strategies was greater than their ability or desire to devise alternative proposals. In the default of socialist schemes for arms stabilization and disarmament measures, therefore, the defence establishments have been able to claim that there were no other serious proposals to curtail the arms race than the highly timid ones with which they are now working. To cite an immediate example. There is hardly a socialist programme for peace that fails to include measures to strengthen the United Nations, to increase the power of its emergency or police forces, or to augment its function as supra-national agency of military and political stabilization. Despite these optimistic commitments, there is no serious study of the United Nations or of its peace-keeping machinery within the literature of the Left, and certainly none that relates the whole issue to the graduated and reciprocal initiatives required in order to achieve disarmament. No wonder that the defence Establishment has been able to convince so many millions of electors that its strategic and hardware proposals—though astronomically expensive and historically pessimistic—provide the *only* viable design to maximize national security and to cope with the awesome threats of a weapons race. No wonder, too, that the military definition of the reality of the Cold War has become so powerful or that the weapons element has been stressed above all others in future projections of the competition to co-exist.

It would be unjust if a note were not added at this point about the political potency of the Left's criticisms; it must be recognized, though, that all of these criticisms relate to conjectures of political *probability* and not to strategic possibilities. That the insight of the Left is shrewd or historically reasonable is not questioned; that the criticisms are based upon value judgments or political preconceptions also cannot be ignored. This provides both the strength and the weakness of the Left. Its political conjectures are searching and unblinkered—as in its concern with the developments of revolutionary nationalism in the Third World

—but they are largely based upon hypothetical interpretations that have not been rigorously investigated. Despite this failure, it is worth **summarizing** the political criticisms that have been advanced recently by the Left.

(a) *The rich and the poor nations.* Every year the income gap between the advanced and the non-industrial nations has continued to widen. As the world price of primary products continues to fall and the rich economies spend less and less of their swelling G.N.P. upon capital economic aid, the pauperizing of two-thirds of the world's population becomes more aggravated. Despite the fantastic overkill capacity maintained by both East and West, the nuclear alliances spend almost \$120 billion per annum on adding to their stockpiles; this figure approximates to the collective G.N.P. of the seventy poorest nations put together. Since the pressures of nationalist rivalry have intensified in the Third World, and the population explosion has further endangered the available food supply there, the prospects of establishing the global political confidence required for G.C.D. have further receded. Wars of national liberation are sure to proliferate and the United Nations has become alarmed at the danger of future wars of a **Congo**-type occurring. The impotence of massive arsenals in this perspective is truly staggering. The poorer **régimes** in the Middle East and Latin America have already begun a status-acquisition race by buying heavy tanks, submarines, and jet planes, though their only use lies in the further regimentation of the peasant masses by the military *juntas* that control the arms. The development of paramilitary and tactical forces by the industrial powers has been equally unsuccessful, as the **Fidelista** and F.L.N. insurgents were able to demonstrate. The "revolution of rising expectations" among hungry and impatient societies cannot be deterred, and all the psychological balancing tricks of the strategy syllogists will be swept aside if brush-fire wars begin to sweep through the volatile, impoverished areas of the **tropics**.<sup>12</sup>

(b) *The indispensability of G.C.D.* There can be no other terminal juncture of an arms race except G.C.D. The ability to establish a disarmed world depends upon developments that neither capitalist nor collectivist societies are currently disposed to initiate. The economic pressures to maintain a high level of defence spending are at least as compulsive as the psychological displacement of hostility that provokes nations to maximize distrust of their neighbours. Political fanaticism, economic insecurity, military security phobias, and aggressive nationalism are each intensifying at a furious pace. There is little evidence to suggest that the process can be slowed down or reversed, but until this happens there will be insufficient harmony and mutual confidence to begin a serious implementation of disarmament. Juggling with psychological devices and logistic equations is fruitless when the dynamic forces in each society are surging so strongly towards violent conflict. The refinements of deterrence theory, therefore, are likely to be undermined

by the alienation of men, by the fluctuations of economic and political conditions, and by the deepening fragmentation of the international community. In place of devising a "moral equivalent to war," as William James recommended, the deterrence theorists are trying to distract or curb competitive passions with makeshift panaceas, such as the Balance of **Terror**.<sup>13</sup>

(c) *The impermanence of deterrence.* The historical reasoning of the Left appears at its best in criticizing the strategists' theory of frozen change or permanent non-development. The theory posits that the atomic directorate of the East and West will be able to "buy time"<sup>w</sup>—if only the consensus and equilibrium of deterrence can prevail—with which to agree among themselves how the Third World can best be handled. In this arrested interpretation of the law of uneven development, it is assumed that the impatient hunger and angry determination for industrialization-in-one-generation can be contained or halted for a few more decades. By 1980, perhaps, the advanced industrial nations will be able to divert some of their massive, automated capacity away from military security requirements and begin to exploit the economic and social resources within their own, protected spheres of **influence** (such as Latin America). The absurdity of this projection is obvious to everyone, it seems, except the defence establishments. Both East and West presently spend a minute sum (less than two per cent) upon human engineering and improvement in the Third World and there are no serious plans to increase this pittance. There is always the danger of an emergent China rallying the poverty-stricken of the world in a **conflict** that might have racial overtones, in order to upset the nuclear oligopoly's planned equilibrium. It is posited that this problem could be handled by nuclear intimidation, though, and by a subtle manipulation of economic resources and markets. The fact has not alarmed the strategists that the nuclear oligopoly could not sit by passively if a severe conflagration were to burst across the hungry continents; nor have they foreseen that an East–West *detente* would surely explode if an attempt were made in such a situation to reimpose a submissive and frozen *status quo*.<sup>14</sup>

#### IV

The non-socialist and highly academic peace movement in the United States has demonstrated how potent a rigorous and systematic exercise in dissent can become. British readers should not mistake the electoral and Congressional weakness of the movement as a sign of debility. Third parties and dissenting groups have never triumphed in American politics—but they do exert powerful pressure at various levels of popular opinion or official decision-making. Whether working singly or in groups—such as the Peace Research Institute or its lively Canadian counterpart—these "**cultural workers**" (to quote C. Wright Mills again)

have frequently pressed the Administration's strategists to modify their most ingenious policies. The hasty burial of the fall-out shelter programme was partly provoked by the powerful, technical attacks made upon it.<sup>15</sup> Similarly, the excesses of the Air Force "counterforce" (or first-strike) strategy were modified after a challenging re-appraisal in the Bulletin of Atomic Scientists, *War/Peace* Reports, The Nation, various academic journals, and the Newsletter of the Council of Correspondence. To my knowledge, neither British public opinion nor the socialist movement enjoys a level of public criticism at this high level of competence, nor has a systematic form of criticism of security policy yet been attempted.<sup>16</sup>

More significantly, the American peace movement has been able to produce a wide range of technically proficient suggestions to hasten disarmament. The more timid and unadventurous proposals have attacked the problems of arms control and Finite Deterrence, rather than going directly for the toughest nut, G.C.D. The best of their work is to be seen in their proposals to eliminate provocative, first-strike weapons while carefully controlling the number of second-strike (or purely retaliatory) systems. Their work on inspection and verification processes has undoubtedly influenced the policy papers of the Arms Control and Disarmament Agency as well as the political calculations that preceded the signing of the Test-Ban Treaty.<sup>17</sup>

More imaginative work has been done on other transitional problems on the road towards G.C.D. Charles Osgood, the president of the American Psychological Association, has advanced a bold but erudite series of suggestions to initiate graduated and unilateral reductions of tension in the international environment.<sup>18</sup> Two professors of law at Harvard have recommended revisions to the U.N. Charter in minute detail in order to strengthen the disarmament capabilities of the world organization; their proposals for phased stages of disarmament and zonal inspection are among the most constructive and scholarly in the literature.<sup>19</sup> Empirical studies of arms control in the Third World, halting the dispersion of nuclear weapons outside Europe, and attempting the denuclearization of outer space have been equally profitable. The data-burdened demonstrations that the United States economy actually *suffers* from the arms race (while gaining precious little from its capital inputs) might even break down the rigid dogmas about American capitalism that are religiously entertained in Peking and in the U.S. Congress.<sup>20</sup>

In all this admirable work, the American peace movement is burdened with a myopia that need not necessarily obstruct socialist criticism. Few of the American "cultural workers" care to reflect upon the structural impediments of U.S. politics and corporate capitalism, and even fewer have noted the probability of collectivist developments in the Third World. It would be highly unjust, however, to dismiss their work as simply a series of academic gimmicks to secure their own

survival against the bomb-happy fanatics in either "camp." In keeping open the debate with the operations-analysts over their strategies of "nuclear assault ratings" and "improved war outcomes" they have often forced the Administration's experts on to the defensive. This has helped to make peace both a lively political issue and **brinksmanship** a deeply questioned gambit. The technical competence and argumentation of the peace movement has thus allowed it an **influence** over public opinion and governmental affairs that has not been equalled by C.N.D.-type organizations in Britain or Japan.<sup>21</sup> This does not necessarily imply that the potency of direct action and ideological protest is **worthless**—but, simply, that it is not enough. If the influential technocrats who advise the Institute of Strategic Studies or the "Shadow" Minister of Defence are to be criticized and public opinion is to be deflected, the Left must approach the problems of military security and disarmament with a technical competence that it has not previously displayed. This means that socialists must become proficient in scrutinizing military hardware budgets or the applied work of nuclear physicists if they are to join the debate over security policy and disarmament strategies. The greatest problems of the day—the political feasibility of peace and the technical prevention of war—require a systematic and empirical analysis of unprecedented refinement. It would be difficult to claim that socialist theory has yet risen to the challenge of criticizing the nuclear sophistries of the present or of formulating its own proposals for the future.

#### NOTES

1. The term was coined by I. L. Horowitz in his popular study of contemporary strategists, *The War Game* (1962). He notes that most of these cerebral "whiz kids" are mathematicians, system engineers, or economists, and that many of them have become close advisers to the White House staff and to the Pentagon. Their representative publications are surveyed in the footnotes that follow. It should be noted that most of their work has been published by prestigious and highly demanding University Press establishments.
2. The author has attempted to aid the course of this criticism too. Walter Goldstein and S. M. Miller: "Herman Kahn, Ideologist of Military Strategy," in *Dissent* (Winter, 1963); *Theories of Terror*, a pamphlet issued by the University Group on Defence Policy (London, 1962); "The Probabilities of Accidental War," in the *New Left Review* (May 1962).
3. The irascible admirals and generals in this group—like Burke, Radford, and Walker—have all been eased out of the powerful positions that they held in the Eisenhower Administration; those remaining in office, like the Strategic Air Command generals, were roughly over-ridden when the Test-Ban Treaty was signed. A similar fate has met the academic theorists of aggressive action, such as: Edward Teller (*The Legacy of Hiroshima*, 1962), Oscar Morgenstern (*The Question of National Defence*, 1959), and Robert Strausz-Hupé (*Protracted Conflict*, 1959). The basic assumption of this group is that moral virtue prohibits the United States from nuclear aggression but that a huge Western preponderance is necessary to deter the Soviet Union.
4. It is difficult to categorize and select from the **voluminous** output of these two

- schools of deterrence literature or from their academically renowned authors. Apart from such useful and diversified anthologies as D. G. Brennan's *Arms Control, Disarmament, and National Security* (1961); Seymour Melman's *Disarmament: Its Politics and Economics* (a special issue of *Daedalus*, 1962); and L. Henkin's *Arms Control: Issues for the Public* (1961), there is a vast collection of specialized, esoteric, or historical surveys. The better known authors among these lists include Herman Kahn, Henry Kissinger, Kenneth Boulding, Thomas Schelling, Jerome Wiesner, Bernard Brodie, and Ralph Lapp. As distinguished contributors to the *Bulletin of Atomic Scientists* or to the *Scientific American*, they have taken positions that vary in imaginative conjecturing but not in the academic quality of reasoned enquiry.
5. Fifteen years of diplomatic sophistries and arms control ploys at Geneva have been carefully catalogued by John W. Spanier and Joseph I. Noguee, in *The Politics of Disarmament: A Study in Soviet-American Gamesmanship* (1962). Their observations about the psychotic impediments to disarmament are illustrated further in Jerome Frank, "Psychological Aspects of the Disarmament Problem," in C. A. Barker (ed.), *Problems of World Disarmament* (1963). See, also, the excellent article in this symposium on "The Biology of Nuclear War," by H. B. Glass.
  6. The partial arms control schemes that have been proposed—such as a nuclear ban upon further testing or upon the launching of orbital weapons in outer space—have been conspicuously advantageous to both sides. They neither limit the present potency of the nuclear forces that exist today, nor do they require sizeable teams for on-site inspection.
  7. The costly weapons procurement policies of both Washington and Moscow demonstrate that each Establishment anticipates the continuing need for both strategic and tactical striking forces. The evidence can be drawn from Arthur Waskow's admirable analysis of the present weapons "mix," in *The Limits of Defence* (1962); a similar inference can be drawn from the new anthology of Soviet writing edited by Marshal Sokolovsky, *Military Strategy: Soviet Doctrine and Concepts* (1963).
  8. A more extensive examination of the "Delicate Balance of Terror" (as A. Wohlstetter put it in his famous article in *Foreign Affairs* in January 1959) was attempted by the present author in his pamphlet cited under footnote 2, *supra*.
  9. Developments in the spread of thermo-nuclear weapons are likely to accelerate as fission and fusion processes decrease in cost and complexity in the near future. Informed predictions of possible weapons developments have been attempted in Beaton and Maddox, *The Spread of Nuclear Weapons*, and in the National Planning Association (of Washington, D.C.) study, *The Nth Country Problem and Arms Control*.
  10. See the report on *Accidental War: Some Dangers of the 1960's* compiled by the Mershon National Security programme at Ohio State University and reprinted in Britain by the Campaign for Nuclear Disarmament. One recent piece of relevant evidence is worth noting here: although the U.S. Mercury project took inordinate care to guard against any mechanical and human defects, at least ten major failures were reported each time that an astronaut was shot into orbit.
  11. See, for example, such vigorous system analyses as: Anatol Rapoport's *Fights, Games, and Debates*; Kenneth Boulding's *Conflict and Defence*; J. David Singer's *Deterrence, Arms Control, and Disarmament*; Seymour Melman (ed.), *Inspection for Disarmament*; and many of the technical studies in the *Journal of Arms Control*.
  12. See many of the alarming articles in M. A. Kaplan (ed.), *Revolution in World Politics* (1962); also Congressman James Roosevelt (ed.), *The Liberal Papers* (1962).
  13. Excellent statements about these issues have been made by David Inglis and Walter Millis in the symposium edited by R. A. Goldwin, *America Armed* (1961).

When receiving his second Nobel Prize, **Linus Pauling** (the American physicist) estimated that the United States stockpile now exceeds 240,000 megatons while the Soviets can claim at least 80,000 megatons; if deliverable, this allows the United States an overkill destruction of a factor of 12, and the Soviets a factor of 10, in terms of the size and density of each other's population centres. Given this massive and instantly poised capacity for destruction, it is hardly surprising that both "super-powers" desire nothing more than a tranquil and passive co-existence among the 120 countries that interact as an international system.

14. Technically persuasive statements about these economic and psychological adjustments have been made in Erich Fromm's *May Man Prevail* (1962), the United Nations' report on the *Economic and Social Consequences of Disarmament* (1962), Walter Millis' *A World Without War* (1961), and Seymour Melman's *Peace Race* (1961). The Rand Corporation and other social science research groups have issued useful reports on these problems. See, also, Saul Mendlovitz's anthology, *Legal and Political Problems of World Order* (1962); and Arthur Waskow's *A Worried Man's Guide of World Peace* (1963).
15. Pentagon officials gave public expression to their exasperation when they found that Congressmen, magazine editors, and the more attentive voters had been informed and influenced by such expert, dissenting critiques as Seymour Melman's *No Place to Hide* (1962), and Arthur Waskow's *Shelter-Centered Society* (1962). These penetrating reports helped to stem a 1961 hysteria that *Life*, the TV networks, and Edward Teller had encouraged after the Berlin Wall crisis.
16. It must readily be granted that socialist writers do not enjoy the funds or facilities of the Rand, Harvard, and A.C.D.A. research contracts. It does not beg the question to add, though, that a change of attitudes and concern is what socialist writing primarily requires today. Mam shattered the theses of the institutional economists of his day without any research grants while enjoying no more than the facilities of the British Museum. Many other skilled writers have sharpened their pens, too, without the comfortable emoluments offered by the Establishment.
17. Much of their work has been included under footnote 4 and 11, *supra*.
18. Charles E. Osgood, *An Alternative to War or Surrender* (1962). His carefully constructed but provocative proposals have stimulated a great deal of unilateralist writing in the United States. Little of it, unhappily, meets the stem empirical standards that Osgood has set for himself.
19. Grenville Clark and Louis B. Sohn, *World Peace Through World Law* (1958). See, also, the growing literature on strengthening the U.N.'s international police forces and peace-keeping functions in a disarmed world.
20. There are innumerable commentaries, though of a very uneven quality, upon the distortion of the U.S. economy and its increasing debilitation by the \$50 billion military budget. To name just a few authors: Bazeldon, Benoit, Boulding, Galbraith, Leontieff, Melman, C. Wright Mills, Myrdal, Perlo, etc.
21. The only thorough analyses attempted outside the Establishment are P. M. S. Blackett's *Studies of War* (1961), Capt. Liddell Hart's work, and Philip Noel-Baker's *The Arms Race* (1958). Other essayists and pamphleteers have glimpsed at strategy problems, but for all their collective effort there has yet to be a specifically British—let alone, socialist—contribution to the literature of war/peace studies.