## The Russell-Einstein Manifesto and the Origins of Pugwash

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It is a great honour for me to be able to speak to Science for Peace and the Canadian Pugwash group about the Russell–Einstein manifesto—in its fiftieth anniversary year—and about the origins of the Pugwash movement.

Before examining the, alas, all-too-brief partnership between Russell and Einstein that developed in the last months of Einstein's life I want briefly to sketch the philosophical basis of and historical background to that collaboration. There was a personal aspect to it as well: in 1944, Russell's last few months of wartime exile in the United States had been spent at Princeton, where he became well-acquainted with Einstein through the weekly discussions of science and philosophy that they usually held with Kurt Gödel and Wolfgang Pauli.

Both Einstein and Russell adhered to a philosophy of war and peace that Russell labelled "relative political pacifism" in a 1943 essay explaining his own movement away from quiescence in the face of fascist aggression in the 1930s to wholehearted support of the Allied war effort against the Axis powers. "Relative" because this form of pacifism did not rule out the resort to armed force in all circumstances (although the exceptions were very few); and "political" because of the emphasis on influencing the actions of states rather than on the personal witness for peace. Neither Russell nor Einstein's outlook was grounded in transcendent moral considerations but rather, as my colleague David Blitz has argued, in a "combination of rationalism and empiricism, of strongly held principles and flexible applications to changing circumstances ... " (Blitz 2000–01, 126).

Sometimes Einstein's analysis of a particular set of circumstances would converge with Russell's (or vice versa); sometimes not. The two men were both vigorously opposed to the First World War, for example. One of Einstein's earliest and most courageous public stands was as a signatory of the "Manifesto to Europeans", an internationalist riposte to the fervently nationalist and militarist "Manifesto to the Civilized World", signed by a much larger number of prominent German intellectuals shortly after the outbreak of the First World War. On account of his anti-war stand in the same conflict, Russell was twice prosecuted under Britain's Defence of the Realm Act and dismissed from a lectureship held at his beloved Trinity College, Cambridge.

Both men also voiced their dissatisfaction with the post-war settlement, believing that it contained the seeds of future conflict, and that the League of Nations as constituted was an inadequate vehicle for preventing war. Peace might still be preserved, however, by international disarmament agreements and, ultimately, by individual and organized resistance to the state's call to arms. Indeed, Einstein and Russell's names appeared on the same international anti-militarist resolution on two separate occasions in 1930.

Almost immediately after Hitler's rise to power in January 1933, however, Einstein invoked an exception to his pacifist rule, arguing forcefully that military preparedness was the only appropriate response to Nazi aggression. Russell eventually arrived at the same conclusion but, like so many on the anti-war Left, extremely late in the day. He had no illusions about the odiousness of Hitler's regime, but his pacifist convictions grew stronger as the likelihood of war increased—to the point of him advocating passive resistance in the face of an invading German Army. Only when Britain was directly threatened by such an invasion in the summer of 1940 did Russell hesitantly resolve that another world war, rather than Nazi hegemony over Europe, was the lesser of two evils.

Very soon after the Second World War, Einstein reverted back to his more customary anti-militarist posture, dedicating himself to the struggle against nuclear weapons, whose development he had urged in a famous letter to President Roosevelt in 1939. He even attempted to enlist Russell's support for an organization which had been established to pursue this objective—the Emergency Committee of Atomic Scientists. But this overture was rebuffed by Russell, although he agreed wholeheartedly with Einstein—and had done so for more than two decades—that the real basis for a stable peace was a system of international governance more inclusive and more binding than that offered either by the United Nations or its predecessor, the League of Nations.

In the early Cold War, however, Russell also adhered to the view that Soviet possession of nuclear weapons would inevitably lead to a third world war. Therefore, to preempt such a scenario, the Soviet Union must be coerced into accepting international control of atomic energy while the United States still enjoyed its monopoly of nuclear force. Threats of war would probably suffice to bring this about, Russell predicted, but if not, a preventive war might have to be waged by the West. He justified such a departure from his basic rule of opposition to war in much the same way that Einstein had in the early-1930s. Whereas for Einstein it was a militaristic and ultimately genocidal Nazi regime which posed the ultimate challenge to humanity and civilization, for Russell it was the prospect of Stalin's Russia in possession of a nuclear arsenal.

What brought Einstein and Russell closer together once again was another change in circumstances, namely, the Soviet Union's breaking of the American nuclear monopoly in August 1949. This ended Russell's so-called preventive war phase, although his anti-Soviet rhetoric would retain a strident edge until Stalin's death over three years later. With both superpowers now equipped with nuclear weapons, Russell calculated, the Cold War impasse could not now be broken by force or threats of force. This consideration became even more germane after the Soviets and Americans achieved critical breakthroughs in thermonuclear weapons technology.

Contact between Russell and Einstein had been re-established over the ostensibly quite different question of McCarthyism, when in June 1953 Russell publicly applauded Einstein's call for academics to refuse to testify before such inquisitorial committees as that chaired by Senator McCarthy. The matter of American domestic politics was not quite so remote from the broader international concerns that were causing such consternation to both Russell and Einstein. Ever since the outbreak of the Korean War, if not before,

Russell had regarded the reactionary effects of Cold War anti-Communism on American political and intellectual life not only as intrinsically bad, but also as magnifying the nuclear threat which he was now trying to reduce.

For all that Russell and Einstein's political views had diverged in the 1930s and again after the Second World War, their differences were incidental not fundamental. Their thinking about war and peace was grounded in the same general principles of relative political pacifism that caused them to respond to the circumstances of the 1950s—i.e. of rival superpowers armed with sufficient nuclear weaponry to destroy world civilization—in much the same way.

Russell knew that Einstein shared his apprehensions about the future of humanity and perhaps expected a favourable response when he put this request to him in a letter of 11 February 1955: "Do you think it would be possible to get, say, six men of the very highest scientific repute, headed by yourself, to make a very solemn statement about the imperative necessity of avoiding war?" (Russell 2001, 488).

This overture to Einstein was connected with Russell's re-emergence as a dissenting public figure and also with a groundswell of like-minded anti-nuclear opinion elsewhere in the scientific community. It was the extraordinary impact of a radio broadcast called "Man's Peril" that propelled Russell back towards public protest in earnest. Like much of his political writing over the previous twelve months or so, this talk, delivered on 23 December 1954, depicted the havoc that would be wreaked by nuclear war. Yet, he also spoke in a more optimistic vein about how this nightmare scenario *could* be averted. As a modest first step he broached the idea that he put to Einstein in a somewhat different form a couple of months later, namely that a group of scientists should draft an authoritative, factual statement about the effects of nuclear war.

As initially conceived by Russell, the plan was for a full-scale scientific inquiry to be undertaken by one of the neutral states, preferably India, rather than a short declaration by distinguished scientists from different countries. To this end, Russell managed to secure an audience with Nehru during the Conference of Commonwealth Prime Ministers in London early in 1955. Nehru remained non-committal about Russell's proposal, but the appearance in New Delhi in 1956 of an official publication *Nuclear Explosions and Their Effects* was regarded by Russell as "pretty much what we asked Nehru to do" (*Collected Papers of Bertrand Russell* [hereafter *CPBR*] 28: 76).

By this later date, however, Russell had long since determined that international scientific opinion, rather than a neutral démarche, was the more suitable vehicle for his political initiative. Among the avalanche of sympathetic letters he had received after the broadcast of "Man's Peril" were two from the French and German Nobel laureates, Frédéric Joliot-Curie and Max Born. For many years both men had been trying to enlist scientists in the cause of world peace, although they approached this problem from radically different political standpoints—as we shall see in a moment.

Speaking of the scientific community more generally, ever since the end of the Second World War—indeed, even before then if one thinks of the confidential Franck Report, prepared in June 1945 by Manhattan Project scientists opposed to the atom bombing of Japan—scientists from different countries had organized to denounce the bomb or, more modestly, to promote an informed understanding of nuclear weapons, radioactive fallout and the peaceful uses of atomic energy. Such organizations as the Federation of American Scientists or Britain's Atomic Scientists' Association had achieved a modicum of influence in the early post-war years, although more with their peers than over governments or the wider public. They had been placed on the defensive in the early-1950s, however, as fear of Communism trumped unease about the bomb, causing their political ambitions to be scaled back by Cold War pressures. Instead of seeking purchase over vital areas of public-policy making, American scientists in particular were forced to defend the independence and integrity of their profession against the intrusive ethos of "loyalty-security"

But Russell was confident that scientists could be quite easily and effectively mobilized against nuclear weapons. He believed that they not only had a singular responsibility to perform such a role but a special aptitude for it as well. He was not thinking so much of the detailed technical expertise of the nuclear physicists, but in more general terms of the capacity for objectivity which he associated with the scientific outlook. At the same time, though, Russell was not naively optimistic. The dangerous gulf between scientific skill and political wisdom had been a recurrent theme of his writings on science since the 1920s, and the central importance of science and technology to the Cold War arms race caused him to view this rift with even greater consternation.

In congratulating Russell on "Man's Peril", Joliot-Curie asked if Russell might support the convening of an international scientific conference to prepare the kind of statement about nuclear warfare to which he had alluded in his broadcast. But Russell's reply to this letter of 31 January 1955 now indicated a preference for "a declaration by a small number of eminent men" (4 Feb. 1955; *CPBR* 28: 305). He probably felt that not enough Western scientists would be drawn to a congress promoted by the World Federation of Scientific Workers, the pro-Soviet body of which the Communist Joliot-Curie was president.

Another Nobel laureate, Max Born also wanted to formulate a sombre declaration against the nuclear threat, similar in spirit to "Man's Peril" and to be signed by all Nobel laureates in physics and chemistry. Born did become one of the manifesto's signatories, but with his close friend Otto Hahn he also proceeded with a parallel initiative, known as the Mainau statement and released a few days after the Russell–Einstein manifesto. Although these two declarations were similar in spirit, the political emphasis behind them was subtly different. Born and especially Hahn, were staunch anti-Communists, and wanted their initiative to come from "Western scholars not mixed with those known to be communists" (n.d., April 1955; quoted in *CPBR* 28: 449). Thus, two of the Russell-Einstein's manifesto's signatories, Joliot-Curie and Cecil Powell (the distinguished British physicist), were not invited to sign the Mainau statement at first, because (as Born explained to Russell in the same letter) "they are known all over the Western world to be

communists" (*ibid.*, 450). This was not true in the case of Powell, although he was a longstanding executive committee member of World Federation of Scientific Workers.

I have digressed, but for an important reason: to highlight a critical dilemma facing Russell as he embarked upon the struggle which yielded the Russell–Einstein manifesto and, two years after that, the inaugural Pugwash Conference on Science and World Affairs. The drafting of the manifesto, Russell's efforts to obtain signatures to it, and his elaboration of the follow-up plan which evolved into Pugwash, all brought to the fore the question of whether Communists and fellow-travellers should be embraced or excluded.

Russell seems to have decided that the benefits of cooperation outweighed the risks of being labelled an apologist for Communism. He came to occupy the middle ground between those non-aligned peace activists and organizations who participated willingly in Communist-led ventures and those who steadfastly opposed such alliances. While regarding ideological diversity as essential to the success of any scientists' declaration, he also appreciated that such inclusiveness risked tarnishing his efforts by association with such pro-Soviet organizations as the World Peace Council and the World Federation of Scientific Workers. Not surprisingly perhaps, Otto Hahn was not the only Western scientist who declined to sign the manifesto explicitly on anti-Communist grounds.

Russell navigated this tricky terrain with considerable skill, although it should be noted that his predicament was not quite so uncomfortable as it might have been for, unlike so many intellectuals on the non-Communist Left, he had no embarrassing past as a fellow-traveller to disavow. His longstanding record of opposition to the Soviet regime peaked in the late-1940s, but can be traced back to his authorship of *The Practice and Theory of Bolshevism*, a highly critical treatment written after he visited revolutionary Russia with a British Labour delegation in the spring of 1920.

Einstein was of a like mind to Russell on the matter of political balance and representation. The reaction of scientists behind the Iron Curtain remained the most imponderable aspect of the whole enterprise. Russell simply hoped that there was a reservoir of goodwill in the East which he might somehow be able to tap. He was disappointed, therefore, when the Soviet physicist Dmitri Skobeltzyn declined to sign the manifesto. But he was gratified that this prominent Academician had at least expressed support for its sentiments and that the following month (August 1955) a Soviet delegation made a surprise appearance at the World Conference of Scientists in London—a political meeting which debated a virtually identical agenda to that brought before the participants in the first Pugwash Conference.

In the last months of his life Einstein had assisted the project which bore both his and Russell's names in a number of small but constructive ways. He dissuaded the American Society for Social Responsibility in Science from attempting to draw up and publicize a declaration of their own. He also attempted to enlist, without success unfortunately, the support of Niels Bohr for his and Russell's venture. He suggested a number of other possible signatories and that his erstwhile collaborator, Leopold Infeld,

now of the University of Warsaw, might be a useful point of contact to the Soviet scientific community.

The revelation that Einstein had signed the draft declaration from his deathbed in what Russell described as "the very last public act of his life" (CPBR 28: 322) added a dramatic element to the press conference at which the manifesto was launched on 9 July 1955. Einstein's posthumous association with the enterprise certainly amplified its immediate impact. Yet, not all attention garnered by the manifesto was favourable. This was still the Cold War, after all, and there were sceptical or downright hostile voices who could not see, or did not wish to see, the "titanic struggle between Communism and anti-Communism" being surmounted in the manner suggested in the declaration. The manifesto seems nevertheless to have struck something of a chord at a particularly dangerous juncture in the Cold War. Popular fears had been fuelled by American nuclear brinksmanship during the recent Chinese offshore islands crisis, by obfuscation from authorities in Britain and the United States about the hazards of radioactive fallout, and by the wishful thinking of civil defence planners. At the same time, however, the impending summit of American, Soviet, British and French heads of state, convened in Geneva some ten days after the manifesto's appearance, had spread a cautious hope that the Cold War stalemate could be surmounted somehow.

But how could Russell help to sustain the momentum generated by the manifesto or by the portents of détente—admittedly fleeting—from the July 1955 summit meeting in Geneva? For a short time he was uncertain about his own future role. "I hope that the international conference envisaged in our joint statement will take place", Russell told one of its signatories and his close political associate Joseph Rotblat, but "it is for others to organize it" (24 July 1955; *CPBR* 29: xiv). Before long, though, Russell, Rotblat, and two other key figures, Cecil Powell and another British physicist, Eric Burhop, were plotting the next steps in precisely those directions mapped out by the manifesto.

Yet, another two years elapsed before the first Pugwash Conference on Science and World Affairs took place at the Nova Scotia retreat of Canadian-American industrialist and philanthropist, Cyrus Eaton. This long delay was caused by various organizational and political problems. The chief organizational difficulties were lack of funds and a suitable venue, although the latter problem was temporarily resolved after Cecil Powell had an audience with Nehru and the Indian Government offered to host the gathering in Delhi in December 1956. Given Russell's emphasis on neutral states as brokers of détente, this arrangement was most satisfactory to him. Several potential benefactors were approached, including Eaton, who was supportive but only interested in funding a gathering at Pugwash. This offer *was* eventually taken up, but only after the simultaneous eruption of the Suez and Hungary crises—with the attendant escalation of Cold War tensions—persuaded Russell that the Delhi congress should be postponed.

As it had been with the manifesto itself, the most perplexing political problem facing Russell and his associates was to ensure that any gathering which took place was politically balanced. Regretful that no Soviet scientists had signed the manifesto, Russell regarded their participation in the planned scientific congress as essential. His association

with Eric Burhop, a confidant of Joliot-Curie's and a leading figure in the World Federation of Scientific Workers, was particularly helpful in this regard. On 23 November 1955 Burhop reported to Russell that the leader of a visiting Soviet delegation, the President of the Soviet Academy of Sciences, A.N. Nesmeyanov, along with three other Academicians, "would probably accept an invitation to join the Initiating Committee". The Soviet authorities, however, remained suspicious about promoting contact between scientists from East and West and deferred a decision on the matter until October 1956. It was then agreed that a four-man delegation should indeed travel to India for the conference, but the participation of the former dissident physicist Pyotr Kapitza alongside the more politically reliable Academicians who had been chosen was firmly ruled out by the Science and Education department of the Communist Party's Central Committee.

On receiving word that some Soviet scientists would travel to Delhi, Rotblat expressed concern that the American presence—limited at this stage to just Linus Pauling, the 1954 Nobel laureate in Chemistry, and Eugene Rabinowitch, editor of the *Bulletin of the Atomic Scientists*—might be too small. It seemed, therefore, that the meeting would be politically imbalanced in the opposite way from what had originally been feared.

When the twenty-two accredited participants of the first Pugwash Conference eventually did assemble, at the Canadian location from which the movement took its name, there were seven Americans, three Soviets, three Japanese, two British, two Canadians and one each from Australia, Austria, China, France and Poland. Western scientists were definitely in the majority, but the Communist presence was not a token one. Russell and his fellow organizers could be satisfied with the extent of the cross-bloc involvement.

Yet, the very political diversity which Russell had deemed so essential carried with it certain risks. The whole enterprise might be dismissed as a Communist front, especially if the Western contingent had too pronounced a left-wing bias. Partly for this reason, Russell ensured that the Communist Burhop was excluded from the list of delegates and that he attended Pugwash in a technical advisory capacity only. Such tactical gestures did not prevent the Pugwash movement from being smeared in a negative way, although its reputation for independence was shored up by the transparency of Professor Rotblat's determination to deflect the pressures that were exerted on it from both sides of the Cold War divide.

At the opening session of the conference the delegates set up three working groups to debate radiation hazards, control of nuclear weapons, and the social responsibilities of scientists. Headway was made in each committee. The third, for example, agreed to a statement which became the basis for the Vienna Declaration, a distillation of the movement's guiding principles that was promulgated at the third Pugwash Conference in Kitzbühel, Austria.

For Russell the significance of the meeting lay not in the detailed committee work but in the simple fact that "Eminent men from both sides of the Iron Curtain and from uncommitted countries met unofficially in a friendly spirit, not to haggle and bargain, but to attempt to diminish the dangers which scientific ingenuity had been creating" (Russell 1958, 145). The conference could easily have degenerated into acrimony or empty ideological posturing. That this did not occur was attributed by both Western and Soviet delegates to the fact that it had been a meeting of *scientists*.

Also crucial was the informal character of the proceedings, for which the host, Cyrus Eaton, deserves much of the credit. It is not unfair to say that Eaton subsequently became a source of irritation and embarrassment to Pugwash organizers, as he flaunted his friendship with Nikita Khrushchev and attempted to influence the agenda of the movement. In the fall of 1959, for example, he urged Pugwash to endorse an appeal for universal disarmament which the Soviet leader had brought before the United Nations. Although Pugwash formally severed relations with Eaton shortly afterwards, he was pivotal to the movement's launch and early growth, not only through his generosity as a benefactor, but also, for example, by helping to arrange visas for the delegates from Communist countries, and stubbornly resisting when the Diefenbaker Government tried to pressure him into postponing the second Pugwash Conference, at Lac Beauport, Quebec, in the spring of 1958.

At the beginning of the first Pugwash conference it was unclear whether this would be the start of something more permanent or simply a one-off occasion. As the discussions progressed, it soon became apparent that the meeting was not an end but a beginning. To ensure this, the Pugwash delegates had picked a Continuing Committee, comprising one of the Soviet participants, Skobeltzyn, along with Rabinowitch and two of the original organizers, Rotblat and Powell. Russell accepted the invitation to act as chairman, and he assumed this role when the Continuing Committee met for the first time in Rotblat's offices at St. Bartholomew's Hospital Medical College, London, in December 1957.

Shortly after the conference, another delegate, Leo Szilard, had circulated a lengthy memorandum, lamenting that the participants had been "largely occupied with preparing a public statement" (see *CPBR* 29: lii). He wanted future gatherings to remain small, but narrowly focused on particular problems with a view to shaping official thinking. Two other organizational possibilities were considered by the Continuing Committee: first, slightly larger meetings, where the emphasis would be on reaching the scientific community at large, and second, high-profile occasions geared towards reaching world opinion through declarations like the Russell–Einstein manifesto. After much debate, the Continuing Committee opted for both the small and medium-sized meetings while also making allowance for the more intermittent convening of the grander public assemblies that were Russell's preferred option. In fact, the two occasions on which Russell delivered keynote addresses to Pugwash gatherings—at Vienna in 1958 and London in 1962—were meetings of the latter, larger kind.

After the Continuing Committee had established the mode of future Pugwash activities, Russell remained chairman for another five years but played an increasingly peripheral role in its emergence as a constructive and independent voice of reason on nuclear testing, disarmament and related Cold War issues. The distance which he placed

between his other political activities and Pugwash was not because he lacked sympathy for the movement, although in his *Autobiography* he did dismiss one of its signal political successes—the Partial Test-Ban Treaty of 1963—as a rather derisory half-loaf. The reasons for Russell's gradual disengagement from Pugwash were more prosaic; after assuming the presidency of the new Campaign for Nuclear Disarmament, he wanted to ensure that his political energies were neither dissipated nor duplicated. For similar reasons, Rotblat resigned from the executive of the recently formed CND to concentrate his attention on Pugwash.

The Russell–Einstein manifesto had suggested apocalyptically that the Cold War and the nuclear arms race boiled down to the following choice, "stark and dreadful and inescapable: Shall we put an end to the human race; or shall mankind renounce war". Russell and Einstein and the other signatories of the document no doubt appreciated that for armed conflict to be superseded by peaceful means of dispute resolution formidable obstacles would have to be overcome. As a vital first step, however, the declaration had urged, in one of its most frequently quoted passages, that "We must learn to think in a new way". Encouraging such modes of thinking was not the least important legacy of Russell and Einstein, and the emergence of the Pugwash movement in the aftermath of their manifesto was an early and important demonstration of such thinking being transformed into practice.

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