IF ARMS CONTROL IS THE ANSWER. . .

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THEN WHAT IS THE QUESTION?

OUTLINE OF TALK

- Introduction: What does the term “arms control” cover?
- Arms Control during the Cold War.
- Applicability to new technologies?
- Alternatives

SOME DEFINITIONS

Arms control is ???

1. **WIKIPEDIA**: Any plan, treaty, or agreement to limit the number, size, or type of armed forces of the participating countries.
2. **Washington insider definition**: “One tool among many in the national security tool kit.”
3. **Academic Critic’s description**: An approach that favors narrow, technical constraints on military capabilities or behavior over attention to the political context and prior beliefs of the relevant actors.

ARMS CONTROL DURING THE COLD WAR

Two rival blocs: USA/NATO and USSR/WTO.

Focus was on nuclear weapons and strategic stability.

Deterrence was the name of the game.

Bilateral structure: US-SU agreements produced controls on numbers and types of nuclear weapons: SALT I and II, INF, START, New START.

Mixed results: New START is the only strategic agreement still in place. It came into force in 2011 and will expire on February 5, 2021.

FEATURES OF NUCLEAR WEAPONS THAT FACILITATED ARMS CONTROL

- **Extreme lethality.**
- **Technology under government control**. High entry barriers.
- **Easy to count and attribute**. Discrete units with distinctive signature.
- **Bilateral relationship of US/SU**, with some shared goals (e.g., nonproliferation) simplified negotiation process.
- **Norm of non-use** emerged over time (but is now challenged).

ACHIEVEMENTS

- **Nuclear numbers reduced.** Negotiated agreements regulated the numbers and types of nuclear weapons held by the USA and Soviet Union.

- **CBM.** The two superpowers adopted a number of confidence-building measures, such as the hot line, intrusive verification measures, transparency for military exercises.

- **Promoted stability.** The arms control measures may have helped to avert nuclear war up to now.

PROBLEMS WITH THIS STORY

Some of the assumptions held by the supporters of arms control were based on insufficient or incorrect information.

Assumption 1. Accidents were unlikely to be a serious problem.

Fact: Many more nuclear accidents and near misses than formerly revealed.

Assumption 2. The US and SU shared a common framework for thinking about deterrence and strategic stability.

Fact: Communication between the two superpowers was imperfect. They did not share the same analytical framework. A dialogue of the deaf.

Assumption 1: RISK vs. UNCERTAINTY

- **Arms control theory and practice confounded the categories of risk and uncertainty.**
  - **Benoît Pelopidas has written about this problem recently: see his paper at https://pacs.einaudi.cornell.edu/working-papers.**
  - ***Risk* is a probabilistic concept: it can be estimated from experience and insured against.**
  - ***Uncertainty* is unknowable and cannot be predicted. It is not amenable to being managed.**

2: COMMUNICATIONS PROBLEMS

"Harold Brown is a very smart man. Those you who worked with him had told us this; and it's very clear. And yet [yesterday] he felt compelled time and again to explain to the Russians what crisis stability meant. And he couldn't quite understand why they didn't understand. Finally, Nikolai said to him, "We agree that crisis stability is a good thing, but you're not defining crisis stability for us. What you're defining is something that serves *your* interests, but that would, in fact, be quite destabilizing for us. Here is what crisis stability would mean for us." And Brown finally got it.." [18 years late].

- Transcript of the Musgrove 1994 conference on SALT II negotiations, Philip Brenner is speaking; Brown is not in the room.

ETHICAL DIMENSIONS

- Nuclear deterrence depends on a credible threat to use nuclear weapons, an act that would violate international humanitarian law and ethical principles.
- The risk of unintentional use through accident or misunderstanding is greater than has been officially acknowledged. Any such an incident would be a humanitarian disaster.
- Arms control measures can reduce the probability of intentional and accidental use, but cannot eliminate it. By providing a semblance of control, arms control is complicit in perpetuating an intrinsically unethical position.

WHAT ABOUT OTHER TECHNOLOGIES?

- Many new technologies of concern: bio weapons, cyber, robots, drones, etc.

- New issues for arms control: Countability, dual-use applications, attribution.

- Not all of the new technologies raise ethical issues beyond the standard ones encompassed by just war theory, but some do.

COMMON CHARACTERISTICS OF THE NEW TECHNOLOGIES

- Rapid technological change outstrips society's capacity to define the problems and respond.
- Lack of consensus on level of security risks confuses the picture.
- Civilian use complicates any attempt at mandatory controls.
- Military lag because new kinds of weapons involve new doctrine and force structure, which take time to develop.
- Any arms control measures would need to be multi-lateral because the technologies are in wide use.

CYBER WEAPONS

- **Cyber technology is widely available**, dual-use, and with many civilian users. Low entry barriers.

- **Counting and attribution are notoriously difficult**.
  - No established metrics of what is to be controlled.
  - No obvious method to verify compliance.

- **Norms for use are contested**, within countries and internationally. Privacy is an issue, as is the legitimacy of potential targets.

- **Government control is weak** in most countries.

IS DETERRENCE POSSIBLE FOR CYBER?

1. **Deterrence by threat of punishment:**
   - Difficulty of attribution is a limiting factor.
   - Threat of retaliation in kind is not plausible because of the self-inflicted damage it would entail.
   - Issues of proportionality with other types of retaliation.

2. **Deterrence by denial**
   - Depends on a greater diligence in the use of security measures than has so far been achievable. Rather than deterrence by denial, we have denial that the problem is serious.

SOME GOOD NEWS

Cyber attacks are not lethal the way nuclear weapons are.

They can disrupt military operations.

They can interfere with everyday life and impose economic costs.

But they do not go Bang!

Attacks by non-state actors are typically small in scope.

Resiliency can be promoted in the design of networks.

DRONES, ROBOTS, etc.

- Like cyber, drone technology is dual use, and widely available.
- Unlike cyber, it is possible to think of realistic arms control measures.
  - Countable units.
  - Effects covered by existing Laws of War. There is an issue of defining combatants—both operators and targets.
  - Fits into existing military structures—in many ways, not revolutionary at all.
- Weapons use, however, raises ethical issues, especially with regard to (semi-) autonomous capabilities.

ALTERNATIVES TO STANDARD ARMS CONTROL MEASURES?

1. **Develop and promote codes of conduct for cyber and drone use.**
2. **Encourage whistleblowers.**
3. **Seek to develop a public understanding of the need to find cooperative solutions to security threats.**

These suggestions are directed to the domestic societal level, but would depend on government actions. Can they be established at the international level?