

2017-2018 Graduate Research Awards *for Disarmament, Arms Control and Non-Proliferation*



AWARD WINNERS SEMINAR

Global Affairs Canada
Lester B. Pearson Building, Ottawa, Canada
March 1, 2018

A joint project of:



and the **International Security Research and Outreach Programme**
of **Global Affairs Canada**

Executive Summary

The ***Graduate Research Awards for Disarmament, Arms Control and Non-proliferation*** (GRA) programme was initiated in 2003 by Dr. Jennifer Allen Simons, President of [The Simons Foundation](#), in partnership with the [International Security Research and Outreach Programme \(ISROP\)](#) of [Global Affairs Canada](#) (formerly the Department of Foreign Affairs and International Trade). The primary objective of the Awards is to enhance Canadian graduate level scholarship on non-proliferation, arms control and disarmament (NACD) issues.

Since its inception, the Graduate Research Awards programme has provided over CAD\$325,000.00 in scholarships to Canadian graduate students working on policy-relevant NACD issues and has helped to encourage a new generation of young Canadian scholars dedicated to further expanding their knowledge and expertise on these critical issues.

The original programme offered three Doctoral Research Awards of CAD\$5,000.00 and four Master's Research Awards of CAD\$2,500.00 each year to support research, writing and fieldwork leading to the completion of a major research paper or dissertation proposal on an issue related to disarmament, arms control and non-proliferation.

In order to allow a greater number of students to participate, the GRA competition was later restructured to consist of a series of debates on timely issues. Sixteen students were shortlisted to participate and the eight students who made the strongest argument in support of their position, as determined by an expert review panel, were selected to receive a Graduate Research Award of CAD\$3,000.00 and required to defend their position in person at the GRA Debates held at the Department of Foreign Affairs (now Global Affairs Canada) headquarters in Ottawa.

The competition has since been revised to simplify the application process and increase the value of the cash awards. For the 2017-2018 programme, a total of four awards of CAD\$5,000 were available to Canadian Master's and/or Doctoral candidates to support the research and writing of an academic paper responding to a specific Non-Proliferation, Arms Control and Disarmament (NACD) topic. Awards also included travel support to Ottawa where successful candidates presented their completed papers during a special seminar held at Global Affairs Canada on March 1, 2018.

The GRA Seminar in Ottawa provided a unique opportunity for exchange among departmental officials, guests, and the next generation of experts in the NACD field. Officials from Global Affairs Canada's International Security and Political Affairs Branch, including the Non-Proliferation and Disarmament Division and the Defence and Security Relations Division, as well as academics and representatives of the Department of National Defence and Public Safety Canada, attended the sessions and Global Affairs Canada hosted a lunch in honour of the GRA recipients following the presentations.

This year, Master's and Doctoral candidates chose to address one of the following research questions:

1. In recent years, some countries, including Canada, have begun to adopt a feminist approach – the core of which is gender equality and the empowerment of women and girls – to their foreign and international assistance policies. With respect to the introduction of a feminist approach into non-proliferation and disarmament policy, what specific elements should be prioritised and what do you assess would be the primary impact of doing so?
2. With industry playing an increasing role in space, what role (if any) should industry play alongside governments to develop international norms of responsible behaviour/confidence building in space?
3. In the context of current tensions involving nuclear-armed countries (e.g. North Korea-U.S., India-Pakistan over Kashmir, Russia-NATO over Ukraine) assess the overall efficacy of the multilateral non-proliferation and nuclear disarmament regime. How successful has this regime been in stemming the proliferation of nuclear arms, encouraging nuclear disarmament and reducing the possibility of an isolated or widespread nuclear conflict? With respect to this regime, what more could individual states, including Canada, do to achieve a world free of nuclear weapons?
4. Does deterrence theory still apply in the current context of relations between NATO and Russia? What does deterrence mean for evolving threats such as the proliferation of missile technology, continued interest in the development of tactical nuclear weapons, and emerging issues of cyber, hybrid, and information warfare?

We are pleased to congratulate the 2017-2018 Graduate Research Awards recipients who each received a cash award of \$5,000.00 from The Simons Foundation as well as travel support to Ottawa to participate in the GRA Seminar.

Shahryar Pasandideh is a PhD student in the Department of Political Science at The George Washington University.

Reid Pauly is a Ph.D. Candidate in Political Science at MIT and a Predoctoral Fellow at Harvard University's Belfer Center for Science and International Affairs.

Rachel Schmidt is a PhD candidate at the Norman Paterson School of International Affairs, where she specializes in conflict studies.

Gregor Sharp is a PhD student in political science at the University of British Columbia and a research associate at The Arctic Institute, Gregor's current research examines the international relations of frontiers.

We wish to thank the following members of the 2017-2018 GRA Expert Review Panel who evaluated the applications and recommended the four award winners for final approval by representatives of The Simons Foundation and ISROP: Andrea Berger, Senior Research Associate and a Senior Program Manager at the James Martin Center for Nonproliferation Studies (CNS) at the Middlebury Institute of International Affairs; Paul Meyer, Senior Fellow at The Simons Foundation and Fellow in International Security, Center for Dialogue, and Adjunct Professor, School for International Studies, at Simon Fraser University; and Christopher Penny, Assistant Professor of International Law at the Norman Paterson School of International Affairs, Carleton University.

We also wish to recognize Chris Conway, Nancy Clark, and Robb Stewart of Global Affairs Canada and Elaine Hynes of The Simons Foundation for their work to coordinate and execute the programme this year.

The 2018-2019 Graduate Research Awards competition will be launched in fall 2018.

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Opening Remarks

MARTIN LAROSE

Director, Non-Proliferation and Disarmament Division
Global Affairs Canada

Bonjour à tous/Good morning.

My name is Martin Larose. I am the Director of the Non-Proliferation and Disarmament Division here at Global Affairs Canada, and I have the honour to act as the Master of Ceremonies for this event.

J'ai le grand plaisir de vous accueillir à la cérémonie de remise des Bourses de recherche aux cycles supérieurs pour le désarmement, le contrôle des armes et la non-prolifération 2017-2018.

Joining us today, in addition to our distinguished guests are my colleagues from Global Affairs, from a number of other departments and agencies, and some leading local academics.

Pour commencer, permettez-moi d'expliquer brièvement le programme ce matin.

Mr. Mark Gwozdecky – Assistant Deputy Minister, International Security and Political Affairs, Global Affairs Canada – will start-off today's program with opening remarks, followed by Dr. Jennifer Allen Simons – President of The Simons Foundation.

We will then turn to the highlight of today's event: presentations by the four award recipients and an opportunity to ask them questions.

Next, we will welcome distinguished guest speaker Mr. Jon Wolfsthal of Global Zero and the Carnegie Endowment for International Peace who will deliver an expert briefing on the US Nuclear Posture Review and nuclear priorities under President Trump.

Closing off the event, Dr. Simons will provide brief closing remarks and conduct the award presentation ceremony.

Please note that today's proceedings will take place under the Chatham House Rule, meaning that any remarks made here are not for attribution.

Sans plus tarder, it is my great pleasure to invite Mark Gwozdecky, Assistant Deputy Minister, International Security and Political Affairs to deliver his opening remarks.

MARK GWOZDECKY

Assistant Deputy Minister, International Security and Political Affairs
Global Affairs Canada

Merci, Martin. J'ai l'honneur de vous accueillir à Affaires mondiales Canada et à l'Édifice Lester B. Pearson pour cette cérémonie de remise des prix.

On behalf of the Department's International Security Research and Outreach Programme – ISROP – and the Non-Proliferation and Disarmament Division, I am pleased to welcome you to the 2017-18 Graduate Research Awards for Disarmament, Arms Control and Non-Proliferation.

Since 2003, when Dr. Simons created the Graduate Research Awards in partnership with the Department, these awards have been a key component of Global Affairs Canada's academic outreach in this important policy area.

L'objectif de ces bourses est de former la prochaine génération de chercheurs canadiens sur des enjeux liés à la sécurité internationale, notamment la non-prolifération, le contrôle des armements et le désarmement.

Since its inception, the Graduate Research Awards programme has granted over \$300,000 in scholarships to Canadian graduate students working on policy-relevant non-proliferation, arms control and disarmament (NACD) issues, encouraging new generations of young Canadian scholars to expand their knowledge and expertise on these critical issues.

Today, these critical issues are more pressing than ever. North Korea's nuclear and ballistic missile programmes, chemical weapons use in Syria, advances in space technology, and an unacceptable gender imbalance in disarmament and non-proliferation work – all require further action.

Canada, as current G7 President, is working to galvanize the international community to address some of these pressing global challenges.

This year WMD issues have taken on added urgency and importance in the G7. Working Groups, chaired by Canada, are tackling such issues as North Korea, chemical weapons use in Syria & Iraq, and the proliferation of small arms and light weapons, particularly in North Africa and Sahel.

On North Korea, Canada also recently co-hosted the Vancouver Foreign Ministers' Meeting on Security and Stability on the Korean Peninsula, where representatives from 20 countries met to discuss diplomatic solutions, including measures to increase pressure on Pyongyang to restart negotiations leading to denuclearization.

We will be focussed on building upon the Vancouver outcomes in the weeks and months ahead.

Canadian non-proliferation efforts also extend beyond the G7. Canada is currently leading a UN-mandated High-level Group to prepare elements of a treaty that would stop the production of materials required to make nuclear weapons. With near universal support of the General

Assembly, and involving a majority of nuclear weapon possessors, this inclusive process is well-positioned to make a meaningful contribution toward a world without nuclear weapons.

I would now like to recognize the four recipients of the 2018 awards. This year, all four recipients are PhD candidates:

- Shahryar Pasandideh, from The George Washington University;
- Reid Pauly, from the Massachusetts Institute of Technology;
- Rachel Schmidt, from Carleton University; and
- Gregor Sharp, from the University of British Columbia.

Félicitations à toutes et tous. Congratulations to all on your winning papers. We very much hope that winning this Award will encourage you to continue your academic engagement on issues of disarmament, arms control, and non-proliferation.

We are very pleased to have you with us today and look forward to your presentations. I encourage you to engage the experts and policy officers joining us today – both in the question and answer sessions, and over lunch.

It is my distinct pleasure to also welcome Mr. Jon Wolfsthal and Dr. Bruce Blair here today. Both are leading experts, with a wealth of experience and knowledge on topics ranging from nuclear disarmament verification to US and Russian security policy; to deterrence, nuclear security, and non-proliferation.

Now, before we hear from Dr. Simons and proceed to the presentations, I thought it would be helpful to remind everyone of this year's winning topics:

- the application of a feminist approach to non-proliferation and disarmament policy;
- the role of industry in developing responsible space policy;
- the effectiveness of the current non-proliferation and nuclear disarmament regime; and
- the relevance of deterrence theory in the Russia/NATO context and in examining evolving threats.

These are the important topics that we asked applicants to investigate this year, and we look forward to hearing their thoughts. The topics were chosen by policy officers in our Non-proliferation and Disarmament Division, many of whom are here today, and I am certain that your insights will be of great interest to them.

In conclusion, congratulations again to the winners. And, on behalf of the Department of Global Affairs, let me repeat our deep appreciation to Dr. Jennifer Simons and The Simons Foundation for their continued support of this Graduate Research Awards program. We are proud to partner with this leading Canadian voice on issues of global importance.

Merci. Thank you.

Opening Remarks

JENNIFER ALLEN SIMONS, C.M., PH.D., LL.D.

Founder and President

The Simons Foundation Canada

Good Morning,

It is a pleasure to be here, participating again, in the annual Graduate Research Awards seminar, a programme in which the Department of Global Affairs and The Simons Foundation have partnered for fifteen years.

I would like to thank Nancy Clark, and Chris Conway who has moved on, of the Department of Global Affairs, and Elaine Hynes, from The Simons Foundation, for their excellent organization and management of this disarmament education programme.

Disarmament education is a neglected subject. There are few initiatives in schools and universities dedicated to research and education on the negative effects of weapons - from handguns to nuclear weapons to 21st century weaponry - essential education to counter the arms trade and so-called military industrial complex - the most lucrative of all businesses - and the enemies of disarmament.

To the Awardees – Shahryar, Reid, Rachel and Gregor - I congratulate you and commend you for your choice of study - for your specialization in current critical disarmament and non-proliferation issues, in space security and in the interesting possibility that a feminist approach may change the dynamics. I have been told by women, who aspire and achieve positions traditionally held by men, that they do not have to become men but it is necessary to harden their attitudes and themselves, which is discouraging. We women do not aspire to be the Amazons of Greek legend, but rather to be peacemakers, peace-builders.

I hope that you will continue to focus on these issues, and pursue careers in *academia*, the foreign service, politics or the NGO world in civil society.

Of most concern to me is the danger of nuclear war - deliberate or inadvertent - and I am increasingly worried that the Syria war with its multiple backers - Russia, the United States, Iran, Israel, Turkey - will become a global conflict and involve nuclear weapons.

Last week, I returned from the Munich Security Conference. Bruce Blair was also there. We witnessed a radical departure from the usual dialogue, discussions and exchange of views – heralding, perhaps, the demise of diplomacy and dialogue and in some instances democracy – a growing trend to authoritarian leadership.

In the place of almost three days of dialogue and discussion on the podium, we were subjected - for the most part - to a succession of solo statements from leaders airing their grievances, attacking, blaming and insulting each other, and rationalizing their own positions.

The United States, for example, extolled the virtue of its transparency compared to Russia's; rationalized its war-oriented Nuclear Posture Review as necessary to combat Russia's new nuclear weapons, ignored its legal obligations under the NPT, and heralding - in essence - a new nuclear arms race.

Russia denounced the US Nuclear Posture Review as leaving Russia no "option but to do the same", listed a host of grievances about the US-led expansion of NATO, and accused Europe of returning to the Nazi era. Israeli Prime Minister Netanyahu waved an alleged piece of a drone at the Foreign Minister of Iran who said it was ludicrous and not worthy of response, and so on.

This war of words is indicative of how far the international realm has fallen from diplomacy, dialogue and the post-Cold War ideals of peace and global co-operation. Relations between Russia and the United States, between NATO and Russia, are at crisis point. North Korea is rapidly escalating its nuclear programme and it seems that the United States wants to engage both North Korea and Iran in war.

India and Pakistan tensions are at a critical high because of shots exchanged at the border - breaking the ceasefire. China and India are sparring with India testing a ballistic missile. All nuclear weapons states are upgrading their weapons and the United States Nuclear Posture Review presents plans to maintain, upgrade and diversify its nuclear arsenal. And we move closer to nuclear war.

It is difficult to know how to ameliorate this dangerous situation; to know how to create the conditions conducive to a return to diplomacy, dialogue and negotiations in order to reduce and eliminate the threat posed by nuclear weapons. It is difficult but not impossible.

Minister Freeland, in an address on Canada's foreign policy priorities, stated that Canada can no longer rely on the United States for global leadership and thus Canada will step up and - as she said - "set our own clear and sovereign course." She stressed Canada's robust support for the rules-based international order and all its institutions and stated that Canada will seek ways to strengthen and improve them.

Even though nuclear issues were not mentioned, it is heartening to learn that Canada has returned to the foreign policy of previous Liberal governments with its support for multilateralism and institutions, most importantly, the United Nations and NATO. It is my hope that this return includes the active nuclear disarmament agenda of the previous Liberal government.

Canada has always been a strong supporter of the Nuclear Non-Proliferation Treaty and its goal of a nuclear free world. And the NPT needs support, needs to be strengthened and Canada can play a strong role in shoring it up. Canada's emphasis has been on the step-by-step approach with a focus on the FMCT.

The US Nuclear Posture Review makes no mention of the FMCT, which further lessens the chance of achieving this Treaty. It would, perhaps, be more useful for Canada to shift its focus to other Article VI obligations, such as:

- Encouraging Russia and the US to negotiate an extension of the New Start Treaty. Russia has expressed willingness to extend the Treaty
- Initiating a conference on the Middle East Zone free of Nuclear Weapons and other Weapons of Mass Destruction
- Forcefully objecting to the nuclear weapons states' modernization of nuclear weapons and the United States' development of new battlefield nuclear weapons
- Forcefully objecting to US plan for a nuclear response to non-nuclear attacks, which include cyber attacks
- Forcefully objecting to pre-emptive use of nuclear weapons
- Forcefully objecting to the **threat of use** of nuclear weapons
- Encouraging the nuclear weapons states to respect their commitments with regard to security assurances, and to extend these assurances to non-nuclear weapons states
- Forcefully objecting to the United States rejection of its commitment, under Article VI of the NPT, to reduce the role and significance of nuclear weapons in military and security concepts, doctrines and policies

The problem with the NPT is that the nuclear weapons states refuse to fulfil the third pillar obligation of the three-way bargain – refuse to eliminate their nuclear weapons. Furthermore, the NPT is not universal and the conditions to which the three nuclear weapons states outside the Treaty would be obligated to agree are unacceptable and perhaps more applicable to the Ban Treaty.

The Nuclear Ban Treaty does not compete with the NPT. Rather it complements it. The Ban Treaty - premature though it may be - is the ultimate goal of the NPT. It is essential that the NPT be saved, be strengthened, until the time comes when all states are ready to sign and ratify this Treaty.

It is my hope that the Government of Canada will forge a more radical path to nuclear disarmament than has been the case during the past 11 years, and that Canada returns to its former role as a leading middle power in the international realm.

Thank you!

Graduate Research Award Presentation 1

SHAHRYAR PASANDIDEH GHOLAMALI

PhD Candidate, Political Science

The George Washington University

Shahryar Pasandideh is a PhD student in the Department of Political Science at The George Washington University. His research focuses on assessments of military power, the development and diffusion of military technologies, and security issues in the Indo-Pacific and the Gulf regions. He completed his undergraduate degree in international relations at the University of Toronto.

Does deterrence theory still apply in the current context of relations between NATO and Russia? What does deterrence mean for evolving threats such as the proliferation of missile technology, continued interest in the development of tactical nuclear weapons, and emerging issues of cyber, hybrid, and information warfare?

DOES DETERRENCE THEORY STILL APPLY IN THE CURRENT CONTEXT OF RELATIONS BETWEEN NATO AND RUSSIA? (MISSILE TECHNOLOGY)

Since 2014, the North Atlantic alliance has endeavoured to deter Russia from undertaking further aggressive military activities in Europe, particularly in the Baltic region. NATO's military responses to date are best characterized as deterrence by denial, namely working to deny Russia a *fait accompli* in Crimea,¹ rather than deterrence by punishment, namely the threatening of objects of value to Moscow should it undertake hostile actions. Although this typology of deterrence remains efficacious with respect to the realm of land warfare, Russia's investment in and fielding of missile technologies poses significant challenges – political, military, and economic – to the alliance's ability to deter Russian military actions before the start of a crisis, during a crisis, and during war itself.

To deter is to persuade an adversary to not undertake an action by making the expected costs of that action higher than the expected benefits.² With respect to the terrestrial defence of the Baltic states, this can entail the forward presence of NATO ground forces to serve as a 'tripwire' to deny Moscow a *fait accompli* occupation of all or parts of the Baltic states without engaging in combat with other NATO members. Therefore, Russia is unable to pull off a quick and low-cost land grab (deterrence by denial).³ Alternatively, NATO could threaten punishment in response to Russian aggression against NATO members by vowing to attack political, military, or industrial sites potentially anywhere on Russian soil – not just adjacent to NATO territory (deterrence by punishment). In each approach the desired outcome is the same – Russian non-aggression – although the approaches have very different implications for crisis management.

Perhaps unsurprisingly, given the escalation risks inherent in threatening targets on Russian territory, NATO has pursued deterrence by denial. Forward deployed rotational NATO ground forces and bolstered air defences as well as more frequent and holistic military exercises have made it far less practicable for Moscow to overrun all or part of the Baltic states either rapidly or at low cost.⁴ Yet forward deployed ground forces only help to reduce the threat from ‘hybrid warfare’ and ground forces, not Russia’s increasingly capable conventionally-armed missile systems. These missiles can facilitate ground operations by threatening NATO members and their military, industrial, and civilian infrastructure, as well as targeting NATO ground forces in the Baltic states.

For over a decade, Russia has been fielding and developing a growing array of increasingly capable and accurate conventionally-armed missiles. A prominent example is the Iskander ballistic missile, a system which has been deployed in the Kaliningrad exclave. The Iskander has been supplemented by several families of land attack cruise missiles (LACM).⁵ Although the U.S. government has concerns that several recently developed Russian missile systems violate the range restrictions put in place by the Intermediate-Range Nuclear Forces (INF) Treaty,⁶ the aforementioned Iskander and most ground-launched LACMs have less than 500 kilometers range and remain INF compliant. Even so, when launched from Kaliningrad, even such relatively short-range missiles can strike as far as Berlin and nearly the entirety of Poland. Furthermore, Russian LACMs launched from warships and by aircraft remain INF compliant whilst having ranges of over 2,000 kilometers, rendering them capable of striking London and beyond from multiple launch points over and adjacent to western Russia. More disconcertingly, Russia is developing even more capable and sophisticated conventionally-armed missiles, including a hypersonic cruise missile as well as a hypersonic boost-glide vehicle.⁷ Since hypersonic weapons cannot be defeated with extant defenses given their very high speeds, their fielding by Russia will have a significant impact on the military balance in Europe.

That Russian military intellectuals typologize such precise conventionally-armed missiles as ‘strategic conventional weapons’⁸ indicates that these conventionally-armed missiles are not solely intended for combat; they are also seen as tools for deterrence. In many respects, these missiles appear to be efficacious albeit highly escalatory means of both deterrence by denial – destroying key logistical nodes required to send NATO reinforcements to the Baltic states – and deterrence by punishment – holding at risk objects of value to NATO member states to deter the targeting of objects of value to Moscow. The challenge to NATO is that Russia’s conventionally-armed missile-based deterrents do not exist solely to defend Russian territory from NATO forces. From the perspective of the alliance, these capabilities can not only serve as military tools to help Russia attain any expansionist aims it holds, they also threaten the alliance’s ability to render politically and militarily credible security guarantees to the alliance members bordering Russia.

How can NATO deter the use of missile capabilities which Moscow has developed and fielded precisely to deter NATO? Unfortunately, neither the deterrence by denial nor the deterrence by punishment paradigms lend for optimism. Since deterrence by denial is about changing the adversary's calculus to make the costs of undesired actions greater than the expected benefits, negating the threat posed by Russian missiles protects NATO's military and civilian assets, meaning that Russia may face a greater cost for aggressive behaviour. Despite this promise, a strategy of denial will require expensive ballistic and cruise missile defence capabilities. Notwithstanding long-running investments in the U.S. and Europe in ballistic missile defences (BMD) technologies, considerable concerns remain about the effectiveness of BMD systems against an adversary as sophisticated and adept as Russia, raising questions about the military viability of this approach.⁹ More generally, both BMD and cruise missile defence share a major problem in that both types of system are very expensive and can only defend a small area, meaning that several dozen systems will be required to defend all areas of import in NATO countries, raising additional questions about the financial feasibility of a purely defensive approach.¹⁰ Furthermore, given the nature of the North Atlantic alliance, defending only some members will simply redirect Russian missiles to targets in less defended NATO members, rendering this approach also politically unacceptable.

A strategy of deterrence by denial can also entail negating the Russian missile threat through other means, primarily the kinetic destruction of missiles and their launch platforms *before* they can be used against NATO. Although the practicability of this approach is doubtful with respect to launch platforms in or over Russia proper,¹¹ it is far more practicable against missile launchers in the Kaliningrad exclave. Although Kaliningrad is well-defended, its small size and distance from the bulk of Russian military power in Russia proper make it very vulnerable. Moreover, whilst Russian forces in Kaliningrad are conferred a virtual range extension compared to systems deployed in Western Russia, rendering even INF compliant systems capable of striking targets deep into central Europe, their very proximity to NATO states such as Germany paradoxically makes them more vulnerable to NATO air and missile strikes. Notwithstanding the vulnerability of Russian missile launchers in Kaliningrad to NATO military capabilities, targeting them raises major concerns about crisis management and escalation control. The most dangerous of these is the risk that Moscow may feel it must use its missiles before it loses them, thereby increasing the potential that such latent capabilities would actually be utilized in a crisis as instruments of war, rather than instruments of deterrence. An additional problem is the indistinguishability – from Moscow's perspective – between NATO air and missile strikes against Russian missiles in Kaliningrad designed to 'merely' negate the most potent Russian offensive deterrent from NATO efforts acting as a prelude to the invasion of Kaliningrad.¹²

If deterring Russian conventional missile capabilities through denial poses serious questions about feasibility and escalation risks, what of deterrence by punishment? For example, would a tit-for-tat approach targeting like-for-like Russian political, military, and economic facilities help negate Russian missile capabilities and its threat to the credibility of NATO's security commitments? Whilst promising in theory, deterrence by punishment is a strategy which is likely to feed the very Russian motivations driving investments in military modernization in general and investments in

missile development and procurement in particular. As with the targeting of Russian missiles and their launchers, a NATO strategy of deterrence by punishment can result in uncertainty in Moscow over NATO's intentions. If Moscow considers the costs of such punishment too high and disproportionate to what it considers to be the stakes in the conflict, it may feel pressure to utilize its own conventionally-armed missiles in a similar fashion. Alternatively, Moscow may decide that 'strategic conventional weapons' are insufficient to deter further NATO punishment and instead issue nuclear threats – whether through 'tactical' or 'strategic' nuclear weapons.¹³ In other words, deterrence by punishment is likely to be highly escalatory and fuel Russia's military modernization and missile development.

Deterrence theory proposes two approaches to altering the adversary's calculus to deter them from taking actions considered undesirable. New technologies such as the increasingly accurate and potent conventionally-armed missiles being developed and fielded by Russia are making deterrence more challenging in that they raise major questions about the practicability and desirability of both deterrence by denial and deterrence by punishment. To deal with this pressing challenge, NATO member states and officials would do well to revisit deterrence theory to better illuminate the paradoxical and frequently escalatory effects of various potential deterrence strategies. This will help calibrate an alliance strategy efficacious to the meeting of the alliance's goals – Russian non-aggression against member states and other states in Europe – whilst remaining viable in political, economic, and military terms.

¹ For a recent academic study on *fait accomplis*, see: Altman, Daniel. "By *Fait Accompli*, Not Coercion: How States Wrest Territory from Their Adversaries." *International Studies Quarterly* 61:4 (2017): 881-891.

² For a classic exposition on deterrence theory, see: Schelling, Thomas. *Arms and Influence*. New Haven: Yale University Press, 1966.

³ NATO's strategy is characterized as a strategy of denial in that the primary aim has been to deter the repetition of Russian personnel without standard identification on their uniforms appearing in the Baltic states as they were in Crimea. Testament to the unwieldy nature of deterrence strategies, such 'tripwire' forces can nonetheless also be both utilized and perceived as part of a deterrence by punishment strategy wherein the lives of non-Baltic NATO soldiers are the dominos which lead to a costly war against the collective power of NATO.

⁴ Schmidt, Michael. "NATO to Expand Military Presence in Europe to Deter Russians." *The New York Times*, February 10, 2016. <https://www.nytimes.com/2016/02/11/world/europe/nato-to-expand-military-presence-in-europe-to-deter-russians.html>, Accessed January 5, 2018.

⁵ These include the highly publicized Kalibr family (land, ship, and submarine launched) as well as the Kh-55 air launched LACM family.

⁶ Woolf, Amy. *Russian Compliance with the Intermediate Range Nuclear Forces (INF) Treaty: Background and Issues for Congress*. Washington, DC: Congressional Research Service, December 26, 2017.

⁷ For primers on hypersonic weapons, see: Acton, James. *Silver Bullet: Asking the Right Questions about Conventional Prompt Global Strike*. Washington, DC: Carnegie Endowment for International Peace, 2013.; Speier, Richard, George Nacouzi, Carrie Lee, and Richard Moore. *Hypersonic Missile Proliferation: Hindering the Spread of a New Class of Weapons*. Santa Monica: RAND Corporation, 2017.

⁸ Acton, James. "Russia and Strategic Conventional Weapons." *The Nonproliferation Review* 22:2 (2015): 141-154.

⁹ For a recent skeptical assessment of the capacity of U.S. theater missile defence technology, see: Fisher, Max, Eric Schmitt, Audrey Carlsen, and Malachy Browne. "Did American Missile Defense Fail in Saudi Arabia?" *The New York Times*, December 4, 2017.

<https://www.nytimes.com/interactive/2017/12/04/world/middleeast/saudi-missile-defense.html>, Accessed January 5, 2018.

¹⁰ This is not to say that missile defences are not necessary if other deterrence strategies are pursued. For example, missile defences serve to complete and render politically viable a conventional counterforce campaign against Russian missile launchers.

¹¹ This is to say that Russian naval vessels are generally more vulnerable both whilst in port and whilst underway at sea.

¹² For an in-depth study of similar dynamics between NATO and the Soviet Union during the Cold War, see: Posen, Barry. *Inadvertent Escalation: Conventional War and Nuclear Risks*. Ithaca: Cornell University Press, 1991.

¹³ This is not to suggest that nuclear escalation is likely, irrespective of the substance of Russian nuclear doctrine. Instead, the shadow of escalation through both conventional and nuclear means looms large. For a skeptical take on whether Russia has a 'escalate to de-escalate' nuclear strategy, see: Oliker, Olga and Andrey Baklitskiy, "The Nuclear Posture Review and Russian 'De-Escalation: A Dangerous Solution to a Nonexistent Problem.'" *War on the Rocks*, February 20, 2018.

<https://warontherocks.com/2018/02/nuclear-posture-review-russian-de-escalation-dangerous-solution-nonexistent-problem/>, accessed March 15, 2018.

Graduate Research Award Presentation 2

REID PAULY

PhD Candidate, Political Science
Massachusetts Institute of Technology

Reid Pauly is a Ph.D. Candidate in Political Science at MIT and a Predoctoral Fellow at Harvard University's Belfer Center for Science and International Affairs. His dissertation explains the causes of credible coercive assurance—why and how targets of coercion believe that they will not be punished after they comply with demands. His broader research interests include nuclear proliferation, nuclear strategy, deterrence and assurance theory, wargaming, and Arctic security. Prior to graduate school, Reid was a research assistant at the Center for International Security and Cooperation at Stanford University, and earned a B.A. in History and Government from Cornell University.

In the context of current tensions involving nuclear-armed countries (e.g. North Korea-U.S., India-Pakistan over Kashmir, Russia-NATO over Ukraine) assess the overall efficacy of the multilateral non-proliferation and nuclear disarmament regime. How successful has this regime been in stemming the proliferation of nuclear arms, encouraging nuclear disarmament and reducing the possibility of an isolated or widespread nuclear conflict? With respect to this regime, what more could individual states, including Canada, do to achieve a world free of nuclear weapons?

A DANGEROUS AND GROWING RIFT BETWEEN NUCLEAR STRATEGY AND ARMS CONTROL

The nuclear nonproliferation regime has been remarkably successful in keeping the number of states with nuclear weapons to single digits.¹ The NPT is merely chief among a patchwork of nuclear nonproliferation bargains—safeguards agreements, nuclear-sharing arrangements, nuclear-weapons-free zone treaties, nuclear supplier cartels, bilateral arms control agreements and coercive bargains—that keep a lid on latent nuclear states.

Yet the regime is also remarkably fragile and rife with inconsistencies. Today, even as states reassert the role of nuclear weapons in their security strategies and modernize their arsenals, the U.S. Congress held hearings to consider new controls on nuclear launch authority.² Elsewhere, arms control and disarmament advocates are achieving striking success at the grassroots level and in the United Nations, even as scholars using new empirical research tools reveal the surprising willingness of the general public to support the use of nuclear weapons.³ A crisis unfolding “at the speed of Twitter” on the Korean peninsula brings these discrepancies into stark relief.⁴

I argue in this essay that a largely overlooked and growing rift within the nuclear weapons expert community itself helps to explain these inconsistencies. Strategists and Arms Controllers, once colleagues, are increasingly disengaging with one another. At such a critical juncture in the movement toward a world free of nuclear weapons, the widening intellectual gap threatens to undercut the regime's progress. A fractured consensus needs repair.

A Growing Chasm and its Consequences

The nuclear expert community is increasingly dividing itself into two camps. Strategists study, advise, and implement the nuclear postures of the major nuclear powers. Their ranks are filled with defense policymakers, international relations and security studies academics, and think tank scholar-practitioners. They are housed within the walls of elite institutions with strong ties to ministries of defense. They typically see themselves as realists, pragmatic defenders of peace and stability. They disparage disarmament advocates as idealists. Arms Controllers, on the other hand, campaign, sponsor, and otherwise promote multilateral nonproliferation initiatives. Their ranks are filled by scholars, lawyers, and non-profit organizers. Buoyed recently by the policy priorities of the Obama administration, the leaders of the arms control community are typically found in Washington, DC and Vienna, with stronger ties to ministries of foreign affairs. They see themselves as the most connected to people—out in the real-world, winning Nobel Prizes—and they disparage the Strategists as hawks.

A rift between these two communities is growing. Their funding sources and audiences are separated; and their achievements blunted. The consequences are severe.

Within the academy, the gap further removes the ivory tower from the real-world. It accelerates the drive to quantitative studies of nuclear strategy, which aggregate singular nuclear crises into datasets that run roughshod over the nuances of coercion in the nuclear age.⁵ Neither do quantitative studies capture the positive effects of progress toward disarmament on non-proliferation policies, denying the link that qualitative research convincingly reveals.⁶

Within the defense community, the gap has diminished a once-influential cornerstone of the nonproliferation regime: the shared conviction among great powers that nonproliferation cooperation served their security interests. During the Cold War, two mortal enemies managed to cooperate to stem the spread of nuclear weapons, doubling their coercive bargaining power to enforce nonproliferation norms.⁷ Bitter enemies found common cause to negotiate the NPT; each stifled the nuclear ambitions of its allies.⁸ Moreover, even hard-nosed defense intellectuals within nuclear weapons states—e.g. Thomas Schelling, Paul Nitze, or McGeorge Bundy—acknowledged the national security imperatives of arms control and nonproliferation.⁹ Better to have eyes on your enemy and reduce the number of states capable of starting a nuclear war, they thought. Today, fewer policymakers make the connection between arms control and security, especially when it comes to the prospect of proliferation by allies.¹⁰

The gap generates the same problem in reverse within the arms control community. Many Arms Controllers now lack an appreciation for how the power politics of nuclear weapons states drove the nonproliferation agenda in the past. The myopia causes advocates to bypass capital cities and

push for reform directly within international institutions, such as the recent UN nuclear weapons ban, in the hopes that longer-term normative pressures will lead to disarmament. Even sympathetic observers lamented the missed opportunities of the ban treaty conference to further reengage nuclear weapons states in nonproliferation.¹¹ An otherwise remarkable masterclass of moral and political persuasion was thus unceremoniously met with senseless rifts, such as American, British, and French ambassadors boycotting ICAN's Nobel Peace Prize ceremony.¹²

Explaining the Gap and Bridging the Gap

The growing divide is both lamentable and understandable. Strategists and Arms Controllers are merely solving problems of different scope with different time horizons. Strategists engage in relatively shorter-term policy problems—how to avoid war in South Asia, on the Korean Peninsula, or impede proliferation to an Nth country—and their answers are mixtures of threats and reassurances to maintain the status quo. Arms Controllers, on the other hand, have a longer-term vision of the problem of a dangerous dual-use technology. Their answer is to get rid of it, albeit wisely, before it gets rid of us.

Neither can be faulted on its merits. Strategists cannot ignore Arms Controllers, because the only viable multilateral nonproliferation agreements that governments have ever managed to negotiate are rooted in promises of eventual disarmament. Even disarmament skeptics must explain how they expect to sustain international coordination on IAEA safeguards, the Nuclear Suppliers Group, the Proliferation Security Initiative, lab-to-lab cooperation, and many other valuable initiatives, without the long-term prospect of disarmament to smooth consensus. Moreover, the incremental and verifiable nuclear stockpile reductions advocated by Arms Controllers contribute to stable nuclear deterrence by promoting transparency and confidence in secure second-strike survivability.¹³ Too often, Strategists, focused solely on posturing nuclear arsenals to maintain deterrent threat credibility, forget that effective coercive threats require complementary (often implicit) assurances of restraint.¹⁴ As Thomas Schelling put it, one cannot communicate “stop or I’ll shoot,” without implying “if you comply, I won’t.”¹⁵

So too must Arms Controllers concede that nuclear weapons maintained in appropriate postures remain a source of caution among rivals.¹⁶ Nuclear disarmament without an alternative source of confidence in stability among great powers is no worthy goal. Moreover, the coercive leverage afforded to nuclear powers by their arsenals has supported progress on disarmament and stemmed proliferation through extended deterrence guarantees and bilateral arms control agreements. Recent scholarship emphasizes the powerful effect of limited bargains, superpower collusion, and alliance coercion on the success of nuclear nonproliferation.¹⁷

Indeed, there is a place for everyone. Strategists should not feel compelled to reargue behind ivy-covered walls that nuclear weapons are useful tools for deterrence. As Jeffrey Lewis succinctly put it to any Strategist who would listen, “...out there, in the real world? ICAN is kicking your**.”¹⁸ A bridge across this divide is sorely needed.

Going Forward

As nuclear weapons states reinvest in their arsenals and nuclear crises once again grace the front page, this rift in the nuclear expert community could metastasize. Yet it was not so long ago that the communities were more bridged and arms control and nonproliferation were integral components of the nuclear strategies of great powers.¹⁹

Indeed, the nuclear expert community has undergone intellectual refurbishment before. In the 1970s, the Ford Foundation, under the leadership of McGeorge Bundy, endowed centers for arms control at major American institutions.²⁰ These centers co-opted the brainpower of nuclear strategists and fused together the study of deterrence and arms control. With the right incentives, today's renaissance in nuclear security studies could move in a similar direction.²¹

Governments and foundations should focus their efforts on bridging the divides between the Strategist and Arms Controller communities as much as between nations. These expert communities need to reclaim their common language and objectives. Without efforts to encourage cross-pollination of research and advocacy, the next generation of experts could devolve into Team Deterrence vs. Team Disarmament. Foundations could, for example, deploy their convening power to host diverse and inclusive 'think-and-do' seminars or fund the writing of 'research agenda-setting white papers' aimed at interdisciplinary, bridging projects. Products could range from research on the links between disarmament, non-proliferation, and nuclear deterrence to security-conscious advocacy campaign plans.

Properly postured nuclear weapons are intensely stabilizing. Yet, at the same time, and without the least bit of contradiction, nuclear weapons are intensely dangerous. Responsible disarmament has thus long been a part of the solution to managing nuclear technology; just as stable deterrence must underwrite the transition to smaller arsenals. The Strategists and Arms Controllers that comprise the human capital of the global nuclear nonproliferation regime need to be reminded that they are one community with common goals.

¹ Today, for the first time in the nuclear age, there are no active nuclear weapons programs outside of the borders of states already possessing nuclear weapons. Syria has outstanding compliance issues with the IAEA, but it is unlikely that civil war-torn Syria has an active nuclear weapons program.

² Absent strategy changes, the United States plans to spend \$1.3 trillion upgrading its nuclear triad over the next 30 years. "U.S. Nuclear Modernization Programs," *Arms Control Association* (August 2017), <<https://www.armscontrol.org/factsheets/USNuclearModernization>>. On U.S. congressional efforts to alter nuclear command and control, see "H.R. 669 – Restricting First Use of Nuclear Weapons Act of 2017," 115th Congress, Introduced January 24, 2017, <<https://www.congress.gov/bill/115th-congress/house-bill/669>>; and "Authority to Order the Use of Nuclear Weapons," United States Senate Committee on Foreign Relations, November 14, 2017, <<https://www.foreign.senate.gov/hearings/authority-to-order-the-use-of-nuclear-weapons-111417>>.

³ On the successful completion of a nuclear weapons ban at the UN, see “United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards their Total Elimination,” *United Nations*, <<https://www.un.org/disarmament/ptnw/index.html>>. For research on U.S. public support for nuclear use, see Daryl G. Press, Scott D. Sagan, and Benjamin A. Valentino, “Atomic Aversion: Experimental Evidence on Taboos, Traditions, and the Non-Use of Nuclear Weapons,” *American Political Science Review* 107, 1 (February 2013): 188-206; and Scott D. Sagan and Benjamin A. Valentino, “Revisiting Hiroshima in Iran: American Attitudes about Nuclear Weapons and Non-Combatant Immunity,” *International Security* 42, 1 (Summer 2017): 41-79.

⁴ The phrase “at the speed of Twitter,” is attributable to Scott D. Sagan, “The Korean Missile Crisis,” *Foreign Affairs* (Nov/Dec 2017).

⁵ Two major quantitative studies of the effects of nuclear superiority, for example, come to opposite conclusions based on differences in method. Todd S. Sechser and Matthew Fuhrmann, “Crisis Bargaining and Nuclear Blackmail,” *International Organization*, 67, 1 (2013): 173-195; and Matthew Kroenig, “Nuclear Superiority and the Balance of Resolve: Explaining Nuclear Crisis Outcomes,” *International Organization*, 67, 1 (2013): 141-171. For a detailed debate on the merits of quantitative nuclear studies, see “What We Talk About When We Talk About Nuclear Weapons,” *ISSF H-Diplo Forum*, No. 2 (2014), <<http://issforum.org/ISSF/PDF/ISSF-Forum-2.pdf>>.

⁶ Kroenig, for example, jumps to concluding that there is no link between disarmament and nonproliferation because he finds no correlation between the size of the U.S. nuclear arsenal and nuclear weapons proliferation. Matthew Kroenig, “US Nuclear Weapons and Non-proliferation: Is there a link?” *Journal of Peace Research* 53, 2 (2016): 166-179. On the positive effects of the Obama administration’s 2010 Nuclear Posture Review on other nonproliferation priorities, see Scott D. Sagan and Jane Vaynman, “Conclusion: Lessons Learned from the 2010 Nuclear Posture Review,” *The Nonproliferation Review* 18, 1 (2011): 237-262.

⁷ Andrew J. Coe and Jane Vaynman, “Collusion and the Nuclear Nonproliferation Regime,” *The Journal of Politics* 77, 4 (October 2015): 983-997.

⁸ On just how strongly great powers have pressed their own allies into not proliferating, see Gene Gerzhoy, “Alliance Coercion and Nuclear Restraint,” *International Security* 39, 4 (Spring 2015): 91-129.

⁹ Reid Pauly, “Bedeviled by a Paradox: Nitze, Bundy, and an Incipient Nuclear Norm,” *The Nonproliferation Review* 22 (2015): 441-455.

¹⁰ Donald Trump infamously expressed little concern for the prospect of a nuclear-armed South Korea or Japan, see “Transcript: Donald Trump Expounds on His Foreign Policy Views,” *New York Times*, March 26, 2016, <https://www.nytimes.com/2016/03/27/us/politics/donald-trump-transcript.html?_r=0>. The point is further exemplified by the termination of lab to lab cooperation between the United States and Russia. Siegfried S. Hecker, *Doomed to Cooperate: How American and Russian Scientists Joined Forces to Avert Some of the Greatest Post-Cold War Nuclear Dangers* (Los Alamos, NM: Bathtub Row Press, 2016).

¹¹ Scott D. Sagan and Benjamin A. Valentino, “The Nuclear Weapons Ban Treaty: Opportunities Lost,” *Bulletin of the Atomic Scientists*, July 16, 2017, <<https://thebulletin.org/nuclear-weapons-ban-treaty-opportunities-lost10955>>.

¹² Alister Doyle, “U.S, Britain, France Accused of Snubbing Anti-nuclear Nobel Prize,” *Reuters*, November 29, 2017, <<https://www.reuters.com/article/us-norway-nobel/u-s-britain-france-accused-of-snubbing-anti-nuclear-nobel-prize-idUSKBN1DT37R>>.

¹³ See Marc Trachtenberg, “The Past and Future of Arms Control,” *Daedalus* 120, 1 (Winter 1991): 203-216; and Erik Gartzke and Jon R. Lindsay, “Thermonuclear Cyberwar,” *Journal of Cybersecurity* 3, 1 (March 2017): 37-48.

¹⁴ This oversight is borne out in the academic literature, which overwhelmingly focuses on evaluations of the causes of threat credibility (e.g. costly signaling, shows of force, brinksmanship, reputation, and strategies of commitment) at the expense of investigating the credibility of complementary assurances. See, for example, James Fearon, "Domestic Political Audiences and the Escalation of International Disputes," *American Political Science Review* (September 1994); James Fearon, "Signaling Foreign Policy Interests: Tying Hands versus Sinking Costs," *Journal of Conflict Resolution* (February 1997); Branislav Slantchev, "Military Coercion in Interstate Crises," *American Political Science Review* (November 2005); Kenneth Schultz, *Democracy and Coercive Diplomacy* (Cambridge: Cambridge University Press, 2001); Daryl Press, *Calculating Credibility* (Ithaca, NY: Cornell University Press, 2005). Moreover, while political scientists have proposed theories to explain why and how states assure allies, we lack a theory of how states assure non-allies. Some scholars have examined how states reassure adversaries to mitigate the security dilemma, but this work does not focus on coercion, which characterizes much of the international relations under the shadow of nuclear war. See, for example, James Steinberg and Michael O'Hanlon, *Strategic Reassurance and Resolve*. Princeton University Press, 2014; and Janice Gross Stein, "Reassurance in International Conflict Management," *Political Science Quarterly* (August 1991). One edited volume has investigated the role of positive and negative security assurances in nuclear nonproliferation. Jeffrey Knopf (ed.), *Security Assurances and Nuclear Nonproliferation* (Stanford, CA: Stanford University Press, 2012).

¹⁵ Thomas C. Schelling, *Arms and Influence* (New Haven, CT: Yale University Press, 1966): 74.

¹⁶ For work on the theory of the nuclear revolution, see Bernard Brodie, *The Absolute Weapon* (Harcourt, Brace and Company, 1946); Thomas C. Schelling, *Arms and Influence* (Yale University Press, 1966); Robert Jervis, *The Meaning of the Nuclear Revolution* (Cornell University Press, 1989); Scott D. Sagan and Kenneth N. Waltz, *The Spread of Nuclear Weapons* (W.W. Norton, 2013); Vipin Narang, *Nuclear Strategy in the Modern Era: Regional Powers and International Conflict* (Princeton University Press, 2014).

¹⁷ Alexandre Debs and Nuno Monteiro, "Conflict and Cooperation on Nuclear Nonproliferation," *Annual Review of Political Science* (2017); Vipin Narang, "Strategies of Proliferation," *International Security* 41, 3 (Winter 2016/17): 110-150; Andrew J. Coe and Jane Vaynman, "Collusion and the Nuclear Nonproliferation Regime," *The Journal of Politics* 77, 4 (October 2015): 983-997; Gene Gerzhoy, "Alliance Coercion and Nuclear Restraint," *International Security* 39, 4 (Spring 2015): 91-129; and Nicholas Miller, "The Secret Success of Nonproliferation Sanctions," *International Organization* 68, 4 (October 2014): 913-944.

¹⁸ Jeffrey Lewis, "An Award for the Collapse of Nuclear Disarmament," *Foreign Policy*, October 9, 2017, <<https://foreignpolicy.com/2017/10/09/an-award-for-the-collapse-of-nuclear-disarmament/>>.

¹⁹ In the U.S. case, Gavin dubbed it a consistent grand strategy of "inhibition." Francis Gavin, "Strategies of Inhibition: U.S. Grand Strategy, the Nuclear Revolution, and Nonproliferation," *International Security* 40, 1 (Summer 2015): 9-46.

²⁰ Benjamin Wilson, "Insiders and Outsiders: Nuclear Arms Control Experts in Cold War America," Dissertation in History, Anthropology, and Science, Technology and Society, Massachusetts Institute of Technology (September 2014).

²¹ Scott D. Sagan, "Two Renaissances in Nuclear Security Studies," *ISSF H-Diplo Forum*, No. 2 (2014), <<http://issforum.org/ISSF/PDF/ISSF-Forum-2.pdf>>.

Graduate Research Award Presentation 3

RACHEL SCHMIDT

PhD Candidate, International Conflict Management and Resolution
Norman Paterson School of International Affairs, Carleton University

Rachel Schmidt is a PhD candidate at the Norman Paterson School of International Affairs, where she specializes in conflict studies. Her dissertation is on the role of women in political violence, looking specifically at why women disengage from non-state armed groups and how they navigate their reentry into civilian life. For this research, she has conducted fieldwork in the UK, Ireland, and Colombia, and she has plans for extended fieldwork in both Ireland and Colombia in 2018.

In recent years, some countries, including Canada, have begun to adopt a feminist approach – the core of which is gender equality and the empowerment of women and girls – to their foreign and international assistance policies. With respect to the introduction of a feminist approach into non-proliferation and disarmament policy, what specific elements should be prioritised and what do you assess would be the primary impact of doing so?

THE REPERCUSSIONS OF GENDER STEREOTYPES IN DISARMAMENT POLICY

Even though the Women, Peace and Security network has successfully made gender mainstreaming relevant in international security, gender mainstreaming policies still do not match international rhetoric (Tripp). In global discussions on the proliferation of small arms and light weapons (SALW), decision-makers rarely consider how women's experiences and understanding around SALW might be mobilized against the spread of these weapons (Farr). Without a feminist critique, however, even if disarmament policies adopt gender mainstreaming, these approaches can inadvertently perpetuate gender stereotypes of women as victims (Ní Aoláin, Haynes, and Cahn; Hafner-Burton and Pollack). Yet being victim of violence does not equate to a complete lack of agency (Coulter). The assumption that women in war are *only* victims and/or peacemakers underestimates their capacity to support and perpetuate violence, and these peacemaker-victim narratives continue to exclude women from politics and war decision-making, including debates on proliferation and disarmament. (Bell and O'Rourke; Hunt and Posa).

Women's roles in perpetuating conflict are highly diverse, including combatants, gun and drug smugglers, spies, strategists, and more. This paper argues that ignoring women's varied roles in conflict—including their frequent responsibilities in acquiring, storing, and transporting SALW—is both a security risk and a gender equity issue. When taking a feminist approach to disarmament policy, three specific elements must be prioritized: first, policymakers need to reframe aims of gender *equality* into gender *equity*. This distinction is important: *equity* is about giving each person what he/she needs to be successful, rather than *equality*, which refers to treating each person the same. War and violence are highly gendered and the power imbalance in post-conflict societies between men and women is often extreme, rendering a gender equality approach insufficient. Second, policymakers must treat women as active participants in non-proliferation discussions and agreements. This means actively seeking out the input of women, including women ex-combatants, to understand women's roles and their actual post-conflict needs and

demands, rather than designing agreements and programs based on imagined needs. Third, policymakers need to consider women's diverse roles in conflict more carefully, including the effects of age, race, and class, to avoid treating "women" as one homogenous group. To assess the potential impact of these recommendations, this paper first discusses women's critical roles in armed conflict and then analyzes the persistent exclusion of women in Disarmament, Disengagement and Reintegration (DDR) and peace processes.

Women's Roles in Armed Conflict

While the international acknowledgement of rape as a weapon of war¹ was a significant step in acknowledging women and girls' war experiences, the dominant narrative that emerged is that women in armed conflict are rape victims, entrenching misconceptions that all (or most) women have no agency in war (Ní Aoláin, Haynes, and Cahn). In addition, societal patterns persist in sexualizing women's participation in violence and ignoring that they can make calculated and political decisions to be part of violent groups, which makes it easier to exclude women in post-conflict decisions (Gentry and Sjoberg; Ní Aoláin, Haynes, and Cahn; King; M. Alison). Women's violence is also highly sensationalized: a stunning majority of research on women in terrorism focuses on their role as suicide bombers—and often portrays them as brainwashed or coerced by men—even though suicide bombing represents a miniscule fraction what women do in terrorist groups (Cohn). My own recent fieldwork in Western Europe suggests a significant disconnect between women's actual roles in various forms of terrorism and the types of intervention policies available to them when they try to disengage. For example, almost all the women interviewees (researchers, prosecutors, and former members of extremist groups) emphasized the critical nature of women's roles in fostering violent extremism both in Europe and abroad (A2, A4-A13, A15, A18). Yet, many men designing and running deradicalization or CVE (countering violent extremism) programs did not think women's roles were influential or problematic, largely based on the observation that very few women were enrolled in disengagement programs (A9, A14, A17). In addition, several interviewees working in or researching CVE said that gender was not a significant issue because their programs were open to both men and women (A9, A14, A17).

However, three different counter-terrorism prosecutors in the United Kingdom noted that women arrested on terrorism offences frequently (and often successfully) play on gender stereotypes to avoid jail time, such as claiming that they were coerced, tricked or abused by men [A11, A12, A13]. One former employee from Prevent (the UK government's main CVE program) posited that women involved in extremist violence get "too much" sympathy, and thus they are often ignored in deradicalization programs because they are not deemed to be security risks (A17). Another former Prevent employee argued that many women join armed groups because they feel marginalized in their societies, but when they disengage the government continues to ignore them [A7]. This interviewee also noted that many government CVE programs for women were cancelled because male directors considered them to be "too pink and fluffy". Another researcher noted that security analysts in the UK mostly ignore female ISIS returnees because they assume that if a woman is coming back, she has "seen the error of her ways" and therefore no intervention is needed [A2].

But feminist research suggests that underestimating women creates many security issues both during and after conflict (Alison; Sjoberg and Gentry; Gentry and Sjoberg). For example, many non-state armed groups have used gender stereotypes as a tactical advantage, employing women covertly to hide and transport weapons, smuggle drugs, and conduct attacks because they are less likely to be searched by law enforcement (A2; A5; A6; A7; A11; Alison; Speckhard; Bloom; Miller). Some male ex-combatants in Colombia have mentioned the importance of wives and girlfriends in urban militias, explaining that the women often determined where violence would take place and whether it would be lethal (Theidon). But this capacity for women to orchestrate violence is likely as grossly underestimated as it is under-researched (Sjoberg and Gentry). Though policy and research around disarmament lack adequate theorizing of women as perpetrators of violence or benefactors of oppression (Alison 2009), war can create opportunities not otherwise available to women (Ní Aoláin, Haynes, and Cahn). In fact, many women ex-combatants in Colombia report that they enjoyed their revolutionary struggle, but this image of women *enjoying* militancy is taboo in post-conflict narratives of victimhood, trauma, and repentance (Londoño F. and Nieto V.; Nieto-Valdivieso).

Women and DDR

Many war-related openings that do exist for women, however, are often clawed back by men when hostilities end, despite national and international expectations for post-conflict change and gender equality. Even when women join armed movements to improve women's status and opportunities, they have historically been excluded from peace negotiations (Bell and O'Rourke; Castillo Diaz and Tordjman). Many women ex-combatants in Nepal, Colombia, and Sri Lanka have expressed disappointment in being expected to return to traditional gender roles post-conflict (Azm; Dahal; Alpert; Mendez), and evidence from Colombia suggests that women ex-combatants disproportionately demobilize without government support compared to men (Anctil Avoine and Tillman). In addition, titles given to female soldiers, such as "dependents" or "camp followers", create a post-conflict environment in which men's reintegration is emphasized as a security issue and thus critical to peace, whereas women's reintegration is deemed a "social concern", even for women who have acted in violent roles (MacKenzie). Other research on DDR has found similar results of devaluing or ignoring women's reintegration needs, as well the tendency for DDR to perpetuate gender stereotypes, such as training women in narrowly-defined "women's work" or by giving cash payments only to men (Mazurana and Carlson; Denov; MacKenzie; Mann; Anctil Avoine and Tillman; Jennings; Mendez; Taylor; Dietrich; Democratic Progress Institute).

Conclusion

When creating post-conflict disarmament and peace agreements, we must ask: peace for whom? During conflict, men and women have vastly unequal access to resources, power, and decision-making, making their experiences in post-conflict reconstruction very different (Shekhawat; Theidon; Goldstein). In post-conflict periods, violence against women remains widespread and in many cases it increases (Bouta et al.); thus, "post-conflict" does not equal peace for all, especially when SALW play a formidable role in maintaining male dominance (Farr). In many conflict-affected areas, the proliferation of SALW is culturally sanctioned and often upheld by gendered

ideologies, and even women who were leaders in an armed struggle are often barred from participating in transition processes (Farr; Anctil Avoine and Tillman). Even if women are invited in, some may choose to stay invisible due to the double stigma of being a woman ex-combatant and/or the potential backlash of speaking up in male-dominated spaces. A feminist approach must investigate power and will anticipate the potential repercussions to women when they move into male-dominated spaces. Bringing women to the negotiating table as valuable and diverse stakeholders is one thing, but addressing the stigma and backlash that women face for speaking up is quite another. Thoughtful policymakers wanting to take feminist approaches must find a way to do both.

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¹ See, for example, UNSC resolutions 1325, 1327, 1366, 1408, 1820, 1888, 1889, 2106, 2122, 2242, 2272, and 2331, available here: <http://www.securitycouncilreport.org/un-documents/women-peace-and-security/>

Graduate Research Award Presentation 4

GREGOR SHARP

PhD Candidate, Political Science
The University of British Columbia

Gregor Sharp is a PhD student in political science at the University of British Columbia and a research associate at The Arctic Institute, Gregor's current research examines the international relations of frontiers. He holds a Master of Arts from UBC and a Masters of International Public Management in Diplomacy from Science Po Paris.

With industry playing an increasing role in space, what role (if any) should industry play alongside governments to develop international norms of responsible behaviour/confidence building in space?

THE SPACE INDUSTRY AS A NORM ENTREPRENEUR?

Increasingly societies will rely on space-based assets to navigate both the opportunities and challenges of the future. Already outer space is so deeply embedded in our social existence, commercial practices, and military endeavours that it is hard to imagine a world without the over 1,000 operational satellites currently in orbit. This growing dependence on space-based assets, combined with the rise of new spacefaring states and disruptive technologies, threatens to undermine the lessons in military restraint learned during the Cold War¹. Indeed, we are frequently warned that outer space is becoming increasingly “congested, competitive, and contested.” Yet, it does not follow that an arms race is inevitable. The European Union's (EU) International Code of Conduct for Outer Space Activities (ICoC) and the United Nations (UN) Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space (GGE) are significant steps in the right direction, even if they have not lived up to their full potential.

One avenue that has remained relatively unexplored is the role that industry could play in creating or developing norms of responsible behaviour and implementing trust and confidence building measures (TCBMs). This omission is especially surprising given that the enforcement of any regulations or implementation of TCBMs will inevitably require industry participation to be successful. Drawing on the institutionalist literature in international relations, this essay seeks to demonstrate how the space industry *could* act as a norm entrepreneur—either independently or in tandem with larger multilateral initiatives—but is held back by national security concerns. It concludes that, regardless of whether or not industry is allowed to assume a more active role, they *should* be consulted in any future efforts.

Norm consumer, “antipreneur,” or norm entrepreneur?

Over the last two decades a significant body of literature has fought to establish the importance of norms in global politics and demonstrate how they emerge. In Nadelmann’s “evolutionary pattern”² and Finnemore and Sikkink’s “norm life cycle”³, norm entrepreneurs initiate norm emergence by framing previously accepted behaviour as problematic or illegitimate. When a sufficient number of states have adopted the new norm a “norm cascade” occurs that can ultimately lead to its widespread internalization⁴.

While various studies have sought to demonstrate the agency of epistemic communities⁵, transnational activist networks⁶, international organizations⁷, and governments in the norm formation process, industry has traditionally been seen as a “norm consumer” instead of a norm entrepreneur. When corporations are studied, it is often as “antipreneurs” who actively resist the emergence of a new norm⁸.

Industry as a norm entrepreneur

Recent work on corporate social responsibility has nuanced the role of industry in norm formation. Instead of being understood solely as an obstacle to change, it has suggested that industry can participate in the emergence of new norms in two distinct ways: norm setting and norm development⁹.

Norm setting

When industry is involved in norm setting—by establishing self-regulatory initiatives or best practices, for example—they are involved in the early stages of the norm life cycle. In doing so, they are defining collectively shared standards of appropriate behaviour and, in effect, becoming norm entrepreneurs¹⁰. Typically, this norm setting does not entail the invention of an entirely new norm, but instead the repackaging of, or commitment to, an existing standard of behaviour that has not yet received widespread acceptance.

The potential for industry to engage in norm setting should not be underestimated. Unlike other actors such as activists who may rely on discursive strategies due to a lack of resources, industry is well adapted to norm setting as they can demonstrate a changed behaviour through their own actions. Furthermore, the relative weight of commercial space ventures, which accounted for 76% of the \$329 billion global space economy¹¹, could potentially be such that it would initiate a “norm cascade” among other actors.

Norm development

If norm setting is the birth of a new standard of appropriate behaviour, norm development is how it changes over time. Factors include the scope, content, and enforcement mechanisms of the norm in question. Norm development will often be built into the procedures of an international regime—regular reviews or updates, for example¹². In this way, a relatively weak initial norm could, with time, grow to something much more expansive (or vice versa). Moreover, industry may be better suited to “localizing” a norm to fit particular circumstances¹³.

It should be noted that norm setting and development by industry is not mutually exclusive with diplomatic attempts to develop norms but can be, to the contrary, complementary and mutually reinforcing. For example, if the space industry were to develop and start abiding by their own code of responsible behaviour based on the EU's ICoC (norm setting), it would demonstrate the feasibility of the process. Over time, as these standards were updated and reviewed in light of both successes and failures (norm development), future attempts to institutionalize said norm would benefit from a proven track record and a clearer delimitation of what is and what is not possible.

Barriers to industry norm entrepreneurship

Some might argue that industry, being purely utilitarian and profit driven, does not have the incentive to engage productively in this process. However, even if you dismiss the literature that suggests that industry is responsive to normative concerns¹⁴ and take a particularly grim view of industry, it is not unrealistic to expect that it would take steps towards self-regulation. A cynical perspective might point to how this could be, if nothing else, a good marketing and branding exercise; whereas, a more optimistic take might argue that industry is aware that stable trading relationships defined by cooperation, trust, and clear rules of the road are conducive to business.

Examples from other industries prove illuminative in this regard. The International Council on Mining & Metals (ICMM) is an international organisation formed by mining and metals companies that develops voluntary standards to improve social and environmental impacts. The ICMM receives inputs from individual corporations on their best practices and works with international organizations and states to implement these across the industry. This suggests that a hybrid public-private governance process is taking place at the international level¹⁵. In space, the role of the International Telecommunications Union provides an interesting precedent worthy of further investigation.

Ultimately part of the problem may not stem from a lack of desire, but instead a lack of opportunity. For example, from 1999 until 2013 satellite manufacturers in the United States were not allowed to sell civilian satellite technology internationally as it was classified as a deadly arm. This was due to the fear that technology could fall into the wrong hands—a fear that reasonably persists today given the close links between space programs, intelligence communities, and the military. Even after President Obama relaxed satellite export restrictions in 2013, China remained embargoed¹⁶. Beyond impacting the American space industry, it also means that if the Europeans or Japanese want to do business with the Chinese they need to prove that none of their components are sourced from the United States (“ITAR free”).

Although this is but one example, it is indicative of the fragmentation of the space industry along national lines and the persistent national security concerns that will hamper industry's ability to participate in norm development. This does not foreground the possibility that a subset of industry could form a regional initiative, however. A group of United States-based space start-ups could develop a set of best practices that could then evolve into a larger industry standard, for example.

Conclusion

The fragmentation of the space industry along national lines and persistent security concerns are significant barriers to the inclusion of industry in the development of a normative framework to govern outer space. The breakdown of political consensus and the escalating sense of threat that undermined previous diplomatic efforts will also present challenges¹⁷. But there is reason to hope. The space industry has proven itself capable of defying expectations and innovating beyond technical challenges; perhaps they can do the same with policy challenges.

This does not suggest an unbridled embrace of capitalism or that private governance should supplant public initiatives. To the contrary, it means discarding the caricature of industry as purely profit driven and instead harnessing its resources to reach mutually beneficial ends. Even if one is hesitant to give industry a more active role, industry *should* be consulted for the simple reason that outer space is increasingly defined by the commercial sector—any normative frameworks or TCBMs will require the cooperation of industry to succeed. While the inclusion of industry in norm development is no panacea, it is a potentially valuable ally that can lend legitimacy and facilitate enforcement of any measures adopted in the future.

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¹ Moltz, *The Politics of Space Security: Strategic Restraint and the Pursuit of National Interests*, 327.

² "Global Prohibition Regimes: The Evolution of Norms in International Society," 484.

³ "International Norm Dynamics and Political Change," 896.

⁴ Ibid.

⁵ Haas, "Do Regimes Matter? Epistemic Communities and Mediterranean Pollution Control"; Allan, "Producing the Climate: States, Scientists, and the Constitution of Global Governance Objects."

⁶ Finnemore and Sikkink, "International Norm Dynamics and Political Change"; Price, "Reversing the Gun Sights: Transnational Civil Society Targets Land Mines."

⁷ Barnett and Finnemore, “The Politics, Power, and Pathologies of International Organizations”; Gheciu, *Security Institutions as Agents of Socialization? NATO and the “New Europe”*; Checkel, “International Institutions and Socialization in Europe: Introduction and Framework.”

⁸ Bloomfield, “Norm Antipreneurs and Theorising Resistance to Normative Change,” 321.

⁹ Flohr et al., *The Role of Business in Global Governance: Corporations as Norm-Entrepreneurs*, 19.

¹⁰ Jepperson, Wendt, and Katzenstein, “Norms, Identity, and Culture in National Security”; Finnemore and Sikkink, “International Norm Dynamics and Political Change.”

¹¹ The Space Foundation, “Press Release: Space Foundation Report Reveals Global Space Economy at \$329 Billion in 2016.”

¹² Flohr et al., *The Role of Business in Global Governance: Corporations as Norm-Entrepreneurs*, 20–21.

¹³ see Acharya, “How Ideas Spread: Whose Norms Matter? Norm Localization and Institutional Change in Asian Regionalism.”

¹⁴ see Sell and Prakash, “Using Ideas Strategically: The Contest Between Business and NGO Networks in Intellectual Property Rights”; Dashwood, *The Rise of Global Corporate Social Responsibility : Mining and the Spread of Global Norms* for example.

¹⁵ *Ibid.*, 7.

¹⁶ Broad, “Communications Satellites Made Legal for Export.”

¹⁷ Meyer, “Dark Forces Awaken: The Prospects for Cooperative Space Security.”

Keynote Address

Jon B. Wolfsthal

Senior Advisor, Global Zero

& Nonresident Scholar, Nuclear Policy Program, Carnegie Endowment for International Peace

2018 Nuclear Posture Review: An Assessment

What is A Nuclear Posture Review?

- A statement of an Administration's overall nuclear weapons policy.
- Why does the US have nuclear weapons, under what circumstances would the President consider using them, how many do we need?
- Completed under Presidents Clinton, Bush, Obama and now Trump.
- 2010 and 2018 were to include views from all key agencies, Departments of State, Defense, Energy as well as White House, Intelligence Community, etc.
- Approved by the President and released by the Defense Department's civilian leadership.

What is in Trump's NPR?

- The Good:
 - Clear statements of the desire to deter Russia and North Korea. Neither state can use nuclear weapons against US or US allies without facing consequences that would outweigh any perceived advantage in using weapons. Deterrence 101.
 - Keeps commitment not to threaten nuclear use against non-nuclear states.
 - Supports reassurance of allies as a key objective of nuclear policy.
 - Support for funding a modernized command and control, training of nuclear officials and personnel.
 - Maintains pledge to hold any state that supplies a terror group with nuclear capabilities accountable for their actions.
 - Restates U.S. objectives is elimination of nuclear, CBW weapons.
- The Bad:
 - Seeks to pursue two new weapons systems – low-yield sub-launched ballistic missiles and nuclear tipped sea-launched cruise missile.
 - Threatens to use nuclear weapons against nuclear states to deter and respond to non-nuclear threats.
 - Removed restriction on designing new types of nuclear weapons.
 - Fails to explain how to pay for current modernization, let alone new systems being requested.
 - Increases ambiguity of when U.S. might consider nuclear use, increases risk of miscalculation.
 - Undervalues role of arms control and strategic engagement to shape strategic landscape with Russia, North Korea, etc.

- Seeks nuclear SLCM as bargaining chip to bring Russia back into INF and negotiate over tactical nuclear weapons
- We spent billions on B-61 nuclear bomb for this reason, no benefit.
- Wants low-yield SLBM to deter Russian use of small nuclear weapons
- Russia not deterred by more US low yield weapons, threatened by US conventional superiority
- Discrimination problem – Russia won't know what is being fired at them, may trigger a broader response
- Targets? Either NATO (not good for alliance management) or Russia (will feel compelled to respond in kind and escalate). Nuclear chicken.
- Greatly increases risk to SSBN fleet – boat that launches highly vulnerable to counter-strike.
- The Ugly:
 - Cannot separate NPR from perception of Trump's management of US nuclear issues, statements
 - Inconsistency from President, issuing nuclear threats, lack of full commitment for alliances raises questions about Trump's actual nuclear policies.
 - Statements supporting alliances and that any process to use nuclear weapons would be deliberative suggest the NPR designed to reassure in uncertain times; times cause by Trump's actions/statements/inconstancy
 - Only considers shaping the strategic landscape by compelling our adversaries to change.
 - Underappreciates and ignores ability to shape Russia, China, DPRK through engagement, negotiation and pressure backed by alliance stability.

Where NPR Goes Astray

- Making nuclear threats that are not credible undermines credibility of core deterrent missions.
- Threatening first use against nuclear states invites nuclear retaliation, loss of escalation control.
- Pursuing new nuclear weapons and designs may undermine Congressional support for modernization.
- Already questions about cost increases and affordability
- Increasing ambiguity when it states a desire to reduce the risks of miscalculation and accidental use.
- Dismissing costs associated with expanding role of nuclear weapons, undermines American leadership and moral authority.
- Fails to support extension of New START, leaving US-Russian nuclear competition vulnerable to acceleration.

Expert Review Panel

Andrea Berger is a Senior Research Associate and a Senior Program Manager at the James Martin Center for Nonproliferation Studies (CNS), Middlebury Institute of International Studies. Her research interests include North Korea's WMD programs, sanctions and export controls, countering proliferation finance, and nonproliferation and disarmament diplomacy. Andrea conducts detailed investigations into illicit networks using open-source intelligence techniques, in support of counterproliferation efforts. She is also a regular contributor at Arms Control Wonk, 38 North, and NK News.

In addition to her full-time position with the CNS, Andrea is currently a Visiting Fellow in the Centre for Science and Security Studies (CSSS) at King's College London, as well as an Associate Fellow at the Royal United Services Institute.

Paul Meyer Paul Meyer is a former Canadian diplomat who retired from the Foreign Service in September 2010 after a 35 year career. He joined the then Department of External Affairs in 1975 and served abroad in Oslo (1976–1978), Moscow (1982–1984) and Brussels (1988–1992) where he was Political Counsellor in Canada's delegation to NATO. From 1992–1997, he served at the Embassy in Washington D.C. as Minister-Counsellor (Political) and from 2001-2003 as Minister and Deputy Head of Mission at the Embassy in Tokyo. In Ottawa, Paul held a variety of positions at the Department of Foreign Affairs and International Trade, primarily in the field of international security policy. He was Director-General of the International Security Bureau (1998–2001) and Director-General of the Security and Intelligence Bureau (2007–2010). From 2003 to 2007, he served as Ambassador and Permanent Representative to the United Nations and the Conference on Disarmament in Geneva. His responsibilities at this centre for multilateral action on global issues spanned a variety of fields including human rights, humanitarian affairs, global health, and arms control and disarmament.

In February 2011 he was appointed Fellow in International Security at the Centre for Dialogue and concurrently Adjunct Professor, School for International Studies at Simon Fraser University, Vancouver. He is also a Senior Fellow at The Simons Foundation. His research interests include nuclear non-proliferation and disarmament, outer space security, conflict prevention and cyber security.

Christopher Penny is Assistant Professor of International Law at the Norman Paterson School of International Affairs, Carleton University. Prior to joining the full-time faculty, he taught as a sessional lecturer at NPSIA as well as at the University of Ottawa Faculty of Law (where he also coordinated the International Law program). Professor Penny is a member in good standing of the Law Society of Upper Canada. In addition to his position at NPSIA, he is also a reserve legal officer (Army Lieutenant-Colonel) with the Canadian Forces, serving in the Directorate of International and Operational Law in the Office of the Judge Advocate General.

In addition to his academic work, Professor Penny also has substantial practical experience with the development and application of international law in this field. He has participated as a member of the Canadian government delegation to numerous multilateral treaty negotiations, both within and outside of the United Nations framework, and has also provided legal advice in operational military environments relating to NATO operations in Afghanistan and Libya.

Annex 1

ISROP
INTERNATIONAL
SECURITY RESEARCH
AND OUTREACH
PROGRAMME

PRISI
PROGRAMME
DE RECHERCHE
ET D'INFORMATION
DANS LE DOMAINE
DE LA SÉCURITÉ
INTERNATIONALE



Graduate Research Awards for Disarmament, Arms Control and Non-Proliferation 2017-2018

March 1, 2018 10:00 - 12:30pm

Room A9-26, Lester B. Pearson Building

10:00	Welcome	Martin Larose Director, Non-Proliferation and Disarmament Division
10:05	Opening Remarks	Mark Gwozdecky Assistant Deputy Minister, International Security and Political Affairs
10:10	Remarks	Dr. Jennifer Allen Simons President of The Simons Foundation
		Shahryar Pasandideh Gholamali PhD Candidate, The George Washington University
10:25	Presentation of Research and Q&A	Reid Pauly PhD Candidate, Massachusetts Institute of Technology Rachel Schmidt PhD Candidate, Carleton University Gregor Sharp PhD Candidate, The University of British Columbia
11:45	Expert Briefing and Q&A	Jon Wolfsthal Carnegie Endowment for International Peace
12:15	Award Presentation and Closing Remarks	Dr. Jennifer Allen Simons Martin Larose
12:30	Lunch	

ISROP
INTERNATIONAL
SECURITY RESEARCH
AND OUTREACH
PROGRAMME

PRISI
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DE LA SÉCURITÉ
INTERNATIONALE



***Les Bourses de recherche aux cycles supérieurs pour le désarmement,
le contrôle et la non-prolifération des armements 2017-2018***

1 mars, 2018 10h00 - 12h30

Salle A9-26, Édifice Lester B. Pearson

10:00	Mot de bienvenue	Martin Larose Directeur, Direction de la non-prolifération et du désarmement
10:05	Remarques d'ouverture	Mark Gwozdecky Sous-ministre adjoint, Sécurité internationale et affaires politiques
10:10	Discours	Dr. Jennifer Allen Simons Présidente, The Simons Foundation
		Shahryar Pasandideh Gholamali Candidate au doctorat, The George Washington University
10:25	Présentation des résultats de la recherche et session de questions- réponses	Reid Pauly Candidat au doctorat, Massachusetts Institute of Technology Rachel Schmidt Candidate au doctorat, Université Carleton Gregory Sharp Candidat au doctorat, Université de la Colombie-Britannique
11:45	Breffage d'expert et et session de Q-R	Jon Wolfsthal Carnegie Endowment for International Peace
12:15	Remise des prix et remarques de clôture	Dr. Jennifer Allen Simons Martin Larose
12:30	Dîner	

2017-2018

GRADUATE RESEARCH AWARDS

for Disarmament, Arms Control and Non-Proliferation

\$5,000

Competition Details

Graduate Research Awards for Disarmament, Arms Control and Non-Proliferation are offered by The Simons Foundation and the International Security Research and Outreach Programme (ISROP) of Global Affairs Canada (GAC).

A total of **four awards of CAD \$5,000** are available to Canadian Master's and/or Doctoral candidates to support the independent research and writing of an academic paper responding to a specific Non-Proliferation, Arms Control and Disarmament (NACD) topic. Awards also include domestic travel support to Ottawa where successful candidates will present their completed papers during a special event at Global Affairs Canada Headquarters on March 1, 2018.

Deadline for applications:	January 8, 2018
Selection of four award recipients:	February 5, 2018
Presentations at GAC Headquarters in Ottawa:	March 1, 2018

HOW TO APPLY:

Complete applications should be sent to Elaine Hynes at The Simons Foundation by email to: ehynes@thesimonsfoundation.ca by the close of business (PST) on January 8, 2018.

Your application must include:

- Your resume, including proof of citizenship status.
- A complete, official transcript of your grades (electronic copies of official transcripts are acceptable).
- An academic paper (1,500 words, MLA format) responding to one of the specific Non-Proliferation, Arms Control and Disarmament topics shown below.

ELIGIBILITY:

The competition is open to Canadian citizens and Canadian permanent residents/landed immigrants currently enrolled in a graduate programme. Graduate students studying outside Canada are eligible to apply but please note that funding to cover the cost of successful applicants' travel to Ottawa for the event at Global Affairs Canada in March is limited to domestic travel within Canada (or the equivalent).

In order to expand the community of Canadian scholars working on non-proliferation, arms control and disarmament (NACD) issues, employees of Global Affairs Canada, and previous recipients of a Graduate Research Award are not eligible.

SELECTION PROCESS:

Applications will be reviewed by an Expert Review Panel made up of three experts and academics working in this field who will recommend four award winners for final approval by representatives of The Simons Foundation and ISROP. Successful candidates will be notified on February 5, 2018.

PRESENTATIONS AT GLOBAL AFFAIRS CANADA HEADQUARTERS:

Award winners will present their papers at a special event hosted by Global Affairs Canada at the Lester B. Pearson building in Ottawa on March 1, 2018, and will be asked to produce a PowerPoint deck for their presentation. The cash awards will be issued at the GRA event in Ottawa and a report, including the papers presented, will be published online by The Simons Foundation. ***Please note that attendance at the GRA event in Ottawa is a mandatory requirement of the award.*** Approved domestic travel, accommodation and meal expenses will be provided by The Simons Foundation.

TOPICS for 2017-2018

Master's and Doctoral candidates may choose to address one of the following subjects:

1. In recent years, some countries, including Canada, have begun to adopt a feminist approach – the core of which is gender equality and the empowerment of women and girls – to their foreign and international assistance policies. With respect to the introduction of a feminist approach into non-proliferation and disarmament policy, what specific elements should be prioritised and what do you assess would be the primary impact of doing so?
2. With industry playing an increasing role in space, what role (if any) should industry play alongside governments to develop international norms of responsible behaviour/confidence building in space?
3. In the context of current tensions involving nuclear-armed countries (e.g. North Korea-U.S., India-Pakistan over Kashmir, Russia-NATO over Ukraine) assess the overall efficacy of the multilateral non-proliferation and nuclear disarmament regime. How successful has this regime been in stemming the proliferation of nuclear arms, encouraging nuclear disarmament and reducing the possibility of an isolated or widespread nuclear conflict? With respect to this regime, what more could individual states, including Canada, do to achieve a world free of nuclear weapons?
4. Does deterrence theory still apply in the current context of relations between NATO and Russia? What does deterrence mean for evolving threats such as the proliferation of missile technology, continued interest in the development of tactical nuclear weapons, and emerging issues of cyber, hybrid, and information warfare?

For more information, please contact Elaine Hynes at The Simons Foundation by email to ehynes@thesimonsfoundation.ca or by telephone at 778-782-7779.

The primary objective of the Graduate Research Awards is to enhance Canadian graduate level scholarship on disarmament, arms control and non-proliferation issues.

BOURSES DE RECHERCHE AUX CYCLES SUPÉRIEURS

pour le désarmement, le contrôle et la non-prolifération des armements 2017-2018

5 000 \$

Détails de l'appel de candidatures

Les Bourses de recherche aux cycles supérieurs pour le désarmement, le contrôle et la non-prolifération des armements sont décernées par la Simons Foundation et le Programme de recherche et d'information dans le domaine de la sécurité internationale (PRISI) d'Affaires mondiales Canada (AMC).

Au total, **quatre prix de 5 000 \$ CA** sont offerts aux étudiants à la maîtrise et/ou au doctorat au Canada pour soutenir la recherche indépendante et la rédaction d'un essai universitaire portant spécifiquement sur la non-prolifération, le contrôle des armements et le désarmement. Les bourses comprennent également les frais de déplacement à partir du Canada vers Ottawa pour les lauréats, qui seront invités à y présenter leurs travaux lors d'une soirée spéciale à l'administration centrale d'Affaires mondiales Canada le 1^{er} mars 2018.

Date limite pour présenter sa candidature : 8 janvier 2018

Sélection des quatre boursiers : 5 février 2018

Présentation à l'administration centrale d'AMC à Ottawa : 1^{er} mars 2018

COMMENT PRÉSENTER UNE DEMANDE

Vous devez faire parvenir votre candidature à Mme Elaine Hynes de la Simons Foundation par courrier électronique à l'adresse ehynes@thesimonsfoundation.ca d'ici le 8 janvier 2018, avant l'heure de fermeture des bureaux (HNP).

Votre dossier de candidature doit comprendre ce qui suit :

- Votre curriculum vitæ, ainsi qu'une preuve de citoyenneté.
- Un relevé de notes officiel et complet (la version électronique des relevés officiels est acceptable).
- Un essai universitaire (1 500 mots en format MLA) portant sur un des thèmes liés à la non-prolifération, au contrôle des armements et au désarmement indiqués ci-dessous.

ADMISSIBILITÉ

Ce concours est ouvert à tous les citoyens canadiens, résidents permanents et immigrants admis actuellement inscrits dans un programme d'études supérieures. Les étudiants diplômés poursuivant des études à l'extérieur du Canada sont admissibles. Toutefois, la prise en charge des frais de déplacement des lauréats, qui devront se rendre à Ottawa pour participer à l'événement organisé par Affaires mondiales Canada en mars prochain, ne touche que les déplacements à l'intérieur du Canada (ou l'équivalent).

Afin d'élargir la collectivité des chercheurs canadiens qui travaillent sur les questions de non-prolifération, de contrôle des armements et de désarmement, les employés d'Affaires mondiales Canada et les précédents lauréats d'une Bourse de recherche aux cycles supérieurs ne sont pas admissibles.

PROCESSUS DE SÉLECTION

Les dossiers de candidature seront examinés par un comité d'examen formé de trois experts et universitaires spécialisés dans le domaine, qui recommandera les quatre lauréats pour approbation finale par les représentants de la Simons Foundation et du PRISI. Les personnes dont la candidature sera retenue en seront avisées le 5 février 2018.

PRÉSENTATION À L'ADMINISTRATION CENTRALE D'AFFAIRES MONDIALES CANADA

Les lauréats présenteront leurs essais lors d'un événement spécial organisé par Affaires mondiales Canada, à l'édifice Lester B. Pearson, à Ottawa, le 1^{er} mars 2018. Ils devront produire un exposé PowerPoint de leur présentation. Les bourses en argent seront remises lors de la soirée Bourses de recherche aux cycles supérieurs à Ottawa, et un rapport, incluant les essais présentés, sera publié en ligne par la Simons Foundation. ***Veillez prendre note que la participation à la soirée Bourses de recherche aux cycles supérieurs à Ottawa est obligatoire aux fins de l'obtention de la bourse.*** La Simons Foundation paiera les frais approuvés pour les déplacements au Canada, l'hébergement et les repas.

THÈMES pour 2017-2018

Les candidats inscrits à la maîtrise ou au doctorat peuvent choisir de traiter l'un des sujets suivants :

1. Au cours des dernières années, certains pays, y compris le Canada, ont commencé à adopter une approche féministe – dont l'égalité entre les sexes et le renforcement socioéconomique des femmes et des filles constituent le cœur – dans le cadre de leur politique étrangère et de leur politique d'aide internationale. Lorsqu'il s'agit d'intégrer l'approche féministe dans les politiques de non-prolifération et de désarmement, à quels éléments précis faudrait-il donner la priorité et quelle en serait, selon vous, l'incidence principale?
2. L'industrie joue un rôle sans cesse croissant dans l'espace. Quel rôle devrait-elle jouer, le cas échéant, en collaboration avec les gouvernements, dans l'élaboration de normes régissant les comportements responsables et le renforcement de la confiance dans l'espace?
3. Dans le contexte des tensions qui existent actuellement entre certains pays dotés d'armes nucléaires (p. ex. Corée du Nord–États-Unis, Inde-Pakistan [au sujet du Cachemire], Russie-OTAN [au sujet de l'Ukraine]), veuillez évaluer l'efficacité générale du régime multilatéral de non-prolifération et de désarmement nucléaire. Dans quelle mesure ce régime a-t-il réussi à entraver la prolifération des armes nucléaires, à favoriser le désarmement nucléaire et à réduire la possibilité qu'un conflit nucléaire isolé ou à grande échelle soit déclenché? En ce qui concerne ce régime, que pourrait faire chaque État, y compris le Canada, pour que le monde soit exempt d'armes nucléaires?
4. La théorie de la dissuasion s'applique-t-elle toujours dans le contexte actuel qui caractérise les relations entre l'OTAN et la Russie? Que signifie la dissuasion dans le contexte de l'évolution des menaces comme la prolifération de la technologie des missiles, l'intérêt soutenu dans la mise au point d'armes nucléaires tactiques et les nouveaux enjeux que sont la cyberguerre, la guerre de l'information et la guerre hybride?

Pour obtenir de plus amples renseignements, veuillez communiquer avec Mme Elaine Hynes de la Simons Foundation par courriel à l'adresse ehynes@thesimonsfoundation.ca ou par téléphone au numéro 778-782-7779.

L'objectif principal des Bourses de recherche aux cycles supérieurs est de promouvoir, au sein de la collectivité étudiante des cycles supérieurs du Canada, les connaissances sur les enjeux liés au désarmement ainsi qu'au contrôle et à la non-prolifération des armements.