# Militarism or peace and justice: Psychology at the crossroads of climate change

#### **Abstract**

Psychological research on climate change has shifted its focus toward the way climate change influences psychological well-being. An exclusive focus on the consequences of climate change is misleading because there is an urgent need to address causes of climate change. The leading institutional user of fossil fuel and the single largest producer of greenhouse gases is a military force. The common argument that individuals must think differently about climate change also applies to psychologists: Psychologists must start considering the impact of militarism on climate change and abandon their reluctance to address military pollution, environmental destruction, and the environmental impact of nuclear weapons. This reluctance is linked with the long-standing militarism within mainstream psychology. Psychologists cannot continue ignore or ally with militarism while militarism produces two global threats: A total nuclear war and climate change. Psychologists can find a more meaningful role in any society focusing on peace, justice and human rights, rather than militarism and national security. In the context of the environment, psychologists must choose to defend the planet, which is home to all. In the context of climate change, psychologists can chart a meaningful course of action only if they focus on environmental justice.

# Militarism or peace and justice: Psychology at the crossroads of climate change

In a seminal report released in January 2005, the International Climate Change Task Force characterized climate change as one of humankind's most serious and far-reaching challenges. The report's authors (Byers et

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climate change, military pollution, environmental justice, greenhouse gases, nuclear weapons, Agent Orange, militarism, national security, napalm al., 2005) were quite optimistic. They argued that immediate action and a long-term climate policy regime could ensure climate protection with the least cost. The report did not mention one of the most important and persistent factors associated with climate change and environmental decline: War and militarism.

Since 2005, there has been a huge increase in scientific publications on climate change. The scientific literature indicates that environmental collapse is inevitable unless serious measures are taken. This paper first examines the psychological literature on climate change and draws attention to the missing focus on militarism, military forces and war. Next, the paper describes the impact of the military forces on the environment and their contribution to climate change. Third, the paper examines militarism in mainstream psychology, particularly in the United States of America (U.S.). Finally, the paper considers how psychology can shift its focus to environmental justice, peace and prevention.

#### Climate change in psychology

Psychologists joined the study of climate change in the 21<sup>st</sup> century. One of the most visible steps was the initiation of a task force by the American Psychological Association's (APA) Council of Representatives. The Task Force on the Interface Between Psychology and Global Climate Change carried out its work in 2008 and 2009, and produced a 108-page report titled, "Psychology and Global Climate Change: Addressing a Multifaceted Phenomenon and Set of Challenges".1

The task force focused primarily on mainstream psychological research into changing behaviors. The report noted that people tend to discount future gains and losses, which plays a large part in their unwillingness to take climate change seriously. It also noted that consumption patterns and population growth play a major role in climate change. These were ideal points to argue that psychologists were experts on motivations and psychosocial factors and, therefore, well-equipped to change these behaviors.

The task force suggested that information about environmental sustainability be integrated into psychological curriculum so that psychologists are equipped with the tools to encourage environment-friendly behavior. The task force also suggested that therapists should prepare for increased stress and anxiety that may result from climate change and that the APA should encourage research and applied science into environmental issues via awards and grants. For the public and policymakers, the task force recommended creating and distributing easy-to-understand informational materials that explain what psychologists know about how human behavior influences

Available at <a href="https://www.apa.org/science/about/publications/climate-change">https://www.apa.org/science/about/publications/climate-change</a>

climate change and how humans can cope with and adapt to a changed environment. Finally, the task force encouraged psychologists to lobby government officials to consider psychological expertise in the legislation process.

In February 2011, the APA Council of Representatives endorsed the "Resolution on Affirming Psychologists' Role in Addressing Global Climate Change" and reiterated the argument that psychology as a discipline is very well-suited to address important behavioral and methodological issues related human contributions and responses to global climate change.

A special issue of the American Psychologist followed from the report of the APA Task Force on the Interface Between Psychology and Global Climate Change. The opening article (Swim et al., 2011) focused on human causes of, consequences of, and responses (adaptation and mitigation) to climate change, and on the links between these aspects of climate change and cognitive, affective, motivational, interpersonal, and organizational responses and processes. The authors argued that psychology was well suited for providing an understanding of climate change and addressing its challenges.

Also in the same issue, Doherty and Clayton (2011) focused on the psychological consequences of climate change and described three classes of psychological impacts: direct (such as traumatic effects of extreme weather and a changed environment), indirect (such as threats to emotional well-being based on observation of impacts and concern); and psychosocial (e.g., chronic social and community effects of heat, drought, migrations, and climate-related conflicts). The authors concluded that climate change required ecological literacy, a widened ethical responsibility, further research into a range of psychological and social adaptations, and an allocation of resources and training to improve competency among psychologists in addressing climate change-related impacts.

The number of publications in psychology devoted to climate change increased significantly over the course of a decade. Further research led by Susan Clayton focused on psychological responses and adaptation to climate change. For instance, Clayton and colleagues (2015) argued that psychological research should inform efforts to address climate change, to avoid misunderstandings about human behavior and motivations that can lead to ineffective or misguided policies. A number of social psychological studies focused on improving public opinion. For instance, Van der Linden, Maibach, and Leiserowitz (2015) warned against framing climate change as a future, distant, global, non-personal matter. They argued that policymakers should (a) emphasize climate

The resolution can be found at <a href="https://www.apa.org/about/policy/climate-change">https://www.apa.org/about/policy/climate-change</a>

change as a present, local, and personal risk; (b) facilitate more affective and experiential engagement; (c) leverage relevant social group norms; (d) frame policy solutions in terms of what can be gained from immediate action; and (e) appeal to intrinsically valued long-term environmental goals and outcomes. Van der Linden, Leiserowitz, Rosenthal, and Maibach (2017) provided evidence to show that it was possible to inoculate public attitudes about climate change against real-world misinformation.

Recent psychological studies almost exclusively focused on how climate change may influence psychological well-being. Noting rapidly accelerating impacts of climate change, Hayes, Blashki, Wiseman, Burke and Reifels (2018) noted a number of direct, indirect, and overarching effects disproportionally influencing the most marginalized, and provided recommendations regarding interventions. Hayes and Poland (2018) argued for incorporating mental health indicators into climate change and health vulnerability and adaptation assessments. In line with their previous work on responses to climate change, Clayton and Karazsia (2020) developed a measure of climate change anxiety.

There has also been an increase in books devoted to psychology and climate change. These books have followed the trends described above. The chapters in a volume edited by Susan Clayton and Christie Manning (2018) focused exclusively on perceptions, impacts, and responses. In their ambitiously titled book, Geoffrey Beattie and Laura McGuire (2019) focused on cognitive biases, resistance to behavioral change, and denial of climate change.

In summary, the literature on climate change has expanded in psychology over the course of a decade. The initial emphasis on decision-making and human behavior has shifted toward how climate change influences psychological well-being. From this review, it is clear that armed conflict, war and militarism have been systematically neglected in this literature. The general argument that individuals must think differently about climate change and must do so urgently also applies to psychologists studying climate change: Psychologists must start considering militarism in studying climate change.

# Securization of climate change

Securitization refers to the transformation of an issue into a matter of security and turning the matter into an existential threat. After the September 11 attacks in the U.S., securitization gained further prominence worldwide, and "environmental security" became a catchphrase in governance debates (Mert, 2013). Climate change was soon subjected to securitization and a strong emphasis was placed on climate change leading to "climate wars".

An important report titled, "Climate Change as a Security Risk", produced by the Scientific Advisory Board of the Federal Government on Global Environmental Change in Germany (Wissenschaftlicher Beirat der Bundesregierung Globale Umweltveränderungen, 2008) provides a good example. The 270-page report summarized the evidence or the state-of-the-art, and specifically mentioned that the literature on environmental conflicts, causes of war, and climate change had been reviewed. The report's core conclusions were:

without resolute counteraction, climate change will overstretch many societies' adaptive capacities within the coming decades. This could result in destabilization and violence, jeopardizing national and international security to a new degree. (...) climate change will draw ever-deeper lines of division and conflict in international relations, triggering numerous conflicts between and within countries over the distribution of resources, especially water and land, over the management of migration, or over compensation payments between the countries mainly responsible for climate change and those countries most affected by its destructive effects. (2008: 23)

The report also argued that the resulting destabilization might be very unpredictable and might lead to new and long-lasting conflicts, and conventional approaches cannot adequately respond to these new security threats. Therefore, sound policy and strategies for adaptation to climate change are critical elements of prevention of conflict and war: "climate policy thus becomes preventive security policy, for if climate policy is successful in limiting the rise in globally averaged surface temperatures to no more than 2°C relative to the pre-industrial value, the climate-induced threat to international security would likely be averted." (2008: 28)

This comprehensive report came close to discussing the role of war and militarism in climate change. The report mentioned militarization but only in the context of misguided security policy. The lack of attention on the impact of militarism and war on climate change was also evident in other publications focusing on security policies.

James R. Lee (2009) argued that climate change would result in unique types and modes of conflict. The book opened with a chapter titled "Climate Change War" and predicted two types of wars: "Cold Wars" in northern and southern latitudes as global warming draws countries into conflict over new resources and territories; "Hot Wars" around the Equator as warming expands and intensifies dry areas, increasing competition for scarce resources (intra-state conflict).

The securitization of climate change resulted in a systematic emphasis on a one-way relationship between climate change and armed conflict. This rigid emphasis is salient

in numerous other studies (e.g., Theisen et al., 2013). Militarism and war as causal factors for climate change are not discussed even in studies explicitly addressing causal linkages (e.g., Nordås, & Gleditsch, 2007). Just as psychological studies focus on consequences of climate change, various climate studies focused only on "security" consequences.

#### **Environmental pollution**

The impact of military activities on climate change has not been addressed in psychology. A similar gap exists regarding the negative impact of military activities on the environment and on humans via environmental destruction. It is, therefore, important to examine this systematic gap in psychology. As H. Patricia Hynes (2014) has argued very convincingly, the environment is very much the invisible casualty of war and militarism. But the impact of military forces and weapons is not limited to times of open war. The environment suffers from military activities in more than one way.

An important component of environmental decline is the contamination of natural resources, such as groundwater. The impact of military contamination is best documented in the U.S., where toxic waste dumps and associated risks to human health and the environment received public attention in late 1970s. In 1980, the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, informally known as the Superfund) was passed and the US Environmental Protection Agency supervised subsequent cleanup efforts.<sup>3</sup>

Superfund sites are mostly abandoned military facilities or manufacturing and testing sites (Hynes, 2014). These sites include facilities for chemical warfare and research, facilities for plane, ship and tank manufacture and repair, training and maneuver bases and abandoned disposal pits. Each site is an environmental catastrophe that contaminates a larger area particularly because toxic leakage reaches groundwater and pollutes drinking water.

Perchlorate, a rocket fuel component, provides a clear example of how pervasive the military chemical contamination can be (Hynes 2014). Across the US, perchlorate spread from military facilities into drinking water systems, and accumulated in leafy food crops and fruit irrigated with contaminated water. One documented outcome is that both soy-based and milk-based baby formula are contaminated with perchlorate. The substance has also been detected in breast milk and human urine. Over half the foods examined by the U.S. Food and Drug Administration contained perchlorate. This pervasive pollution is serious public health matter because even very low levels of perchlorate in food and water supply threaten the health of infants.

<sup>3</sup> https://www.epa.gov/superfund/what-superfund

Military pollution is also a threat to other species. Smith, Theodorakis, Anderson and Kendall (2001) focused on a facility known to have perchlorate-containing propellants and rocket motors. Ground and surface waters around the facility were contaminated with perchlorate and wild animals (aquatic and terrestrial species) were exposed to perchlorate in their environment.

It would be fair to conclude that military pollution in general and Superfund sites in particular are continuing environmental disasters in the U.S. Despite the fact that military pollution is pervasive and has been in the public knowledge for decades, there has been very little interest in psychology in the damage military activities have brought on the environment. There is virtually no research in psychology on environmental decline around Superfund sites and the struggles local people are engaged in during the cleanup process. The very few existing publications are about "the psychology and economics of Superfund" and they focus on long-term impacts of the cleanup activities on property values in neighboring areas (Messer et al., 2006). In other words, the focus is on property value losses, rather than the pollution and the environmental damage.

#### **Environmental destruction**

Despite the scale of environmental damage military forces, the outcomes are routinely portrayed as unintended or collateral damage. It is, therefore, important to point out that military forces have always caused environmental damage as part of their overt or covert war strategies. A case in point is the environmental catastrophe brought onto the land and people of Vietnam with napalm, an incendiary weapon, and Agent Orange, a chemical specifically used to eliminate existing ecosystems. Napalm and Agent Orange provide two very important examples because their use and impact are well-known.

During the long-lasting war on Vietnam, trees were literally an enemy (Griffiths, 2005) and the land was a testing site for various weapons. Napalm bombs became a symbol of the war on Vietnam even though the U.S. first used them during World War II to devastate major cities in Japan and horrify the population (Değirmencioğlu, 2020a). Napalm became the weapon of choice during the Korean War primarily because its impact horrified and demoralized the troops of the North Korean and allied forces (Değirmencioğlu, 2010). Along with the cities, towns, and villages across North Korea, surrounding areas were systematically targeted by napalm bombs and were burned to the ground.

Agent Orange never achieved the worldwide fame that napalm had primarily because its impact was not instantaneous. Unlike napalm, it was not designed as a weapon from the start. Agent Orange was originally introduced as herbicide in the U.S. and

was later adopted by the U.S. military to destroy forests and to deny the enemy cover. Over the course of a decade, U.S. military aircraft sprayed millions of gallons of Agent Orange and other chemical herbicides on the countryside in South Vietnam. Under the name "Operation Ranch Hand", an extended herbicidal warfare was carried out to defoliate the indigenous plants and forests in a huge area. A secondary goal was to starve the guerilla forces by destroying the lands that might be used to cultivate food crops. The systematic and total destruction of the ecosystem was later called an "ecocide" (Zierler, 2011: 2):

The massively destructive effects of herbicidal warfare became known as "ecocide," so called by several academic scientists who protested herbicidal warfare beginning in 1964 and who ultimately won the right to inspect its effects in Vietnam six years later. What they found was not simply the elimination of "weeds" but the destruction of whole environments upon which humans depended—and the looming prospect that the chemicals themselves might harm humans and animals.

The long-lasting impact of Agent Orange on the indigenous population in Vietnam has been horrific (Griffiths, 2005; Wilcox, 2011a) but not acknowledged, particularly in the U.S. (Zierler, 2011).

In Ho Chi Minh City, I interviewed the doctor who delivered the first headless baby in a Saigon hospital in 1967, and who spent the next forty years researching the effects of dioxin on pregnant women. ... [In] a locked chamber of horrors down the hall from the children's ward in Tu Du Hospital ... monsters float in ... glass jars. "Skeptics," said the doctor who accompanied us there, "are more than welcome to visit this room, after which I will be happy to answer their questions." (Wilcox, 2011a: 9)

Soldiers from the U.S. and allied forces (South Vietnam, South Korea Australia and New Zealand) were also exposed to Agent Orange. Serious studies on the influence of Agent Orange on military personnel were not undertaken until 1984 (Zierler, 2011). Their suffering was not documented for decades (Wilcox, 2011b).

The chemical warfare campaign was supported by psychological operations: Local officials were informed of the "vital necessity" for herbicide operations. Leaflets characterizing herbicide as a vital tool against guerrilla activities were distributed. The leaflets also "assured residents of the safety of the chemicals and promised compensation for any crop damage they might sustain as a result of spraying," (Zierler, 2011: 72). In other words, the chemical warfare campaign was preceded by the "psychological preparation" of local residents (Zierler, 2011: 72). These "psychological operations", which had been "designed to assure peasants that

herbicides were harmful neither to them nor to their animals," were later deemed successful (Zierler, 2011: 80).

The destruction and suffering caused by napalm have been completely ignored in psychology, even though it was favoured by generals for its psychological impact (Değirmencioğlu, 2010). Today, 60 years after the beginning of Operation Ranch Hand, the psychological literature has virtually nothing to offer regarding the destruction of the environment by Agent Orange, the long-term health consequences and the suffering caused by Agent Orange. To put it bluntly, psychological knowledge was employed as part of the herbicidal warfare but psychologists have not been interested in the long-lasting and horrifying impact of this warfare.

#### Nuclear pollution and nuclear war

The greatest threat to the survival of human presence and all forms of life on earth is the possibility of total nuclear war. Decades after the end of Cold War, this threat continues to exist as part of an ever-expanding military mechanism that contributes to global warming. Very little seems to have been learned over the course of the 76 years since the two nuclear attacks in 1945 (Değirmencioğlu, 2020a). What appears to be particularly striking is that psychologists have shown very little interest in the aftermath of these nuclear attacks. A recent review, published in a non-psychology journal, shows that the U.S. military was far more interested in the aftermath of the nuclear attacks (Edwards et al., 2019). The unimaginable suffering of the people who survived the nuclear attacks and the experience of living in an environment contaminated by radiation have been too irrelevant a theme for psychologists.

Nuclear weapons also constitute a major threat in the absence of a war because nuclear testing continues. Since the first test in New Mexico in 1945, nuclear weapons have been tested worldwide repeatedly, and in multiple environments: Above ground, under ground, under water, and even in outer space (Hynes, 2014). This means that the nuclear attacks on Hiroshima and Nagasaki have been repeated in much magnified version, in the absence of a declared war, discharging massive radioactivity into the environment.

Nuclear weapons pose a third great threat even when they are not used because nuclear sites and nuclear waste continuously contaminate the environment. Hynes (2014) argues that the waste due to nuclear weapons goes beyond all other hazardous waste in scale, toxicity, dispersion across the world, and cost. Moreover, nuclear waste defies solutions for permanent environmental cleanup and safety. Finally, nuclear weapons are often beyond scrutiny because they are treated as state secrets. Hynes (2014) draws attention to the difficulty in identifying radioactive waste from nuclear weapons and the fact that U.S. military is not accountable for environmental protection in hundreds of bases worldwide.

This warning should be taken very seriously. The influence of the modern military-industrial complex is so powerful that the environmental destruction it continues to cause is largely above scrutiny and regulation (Branagan, 2013).

Just as with nuclear attacks, psychologists have shown very little or no interest in the aftermath of nuclear tests, in people whose lands have been colonized for nuclear testing, and the impact nuclear contamination has on the environment and on the lives of people who are faced with a lethal but invisible threat.

#### Military activities and climate change

Following the end of Cold War, hopes for a more peaceful world were frustrated with a new kind of militarism full of scary unpredictable enemy scenarios and antiterrorism strategies. The 21<sup>st</sup> Century opened with a series of never-ending wars, often described as a state of "permanent war" (Değirmencioğlu, 2020a). These wars took place at a time when climate change was receiving attention worldwide. Still, the impact of war and other military activities on climate change has rarely been considered in psychology.

The invasion of Iraq shows the impact of a 21st Century war on climate change. At the outset of the invasion in March 2003, the U.S. Army estimated it would need more than 40 million gallons of fuel for the first three weeks – an amount exceeding the total quantity used by all Allied forces during World War I (Hynes, 2014). Between 2003-2007, the invasion generated at least 141 million metric tons of carbon dioxide equivalent. Each year of the war, this amount of carbon dioxide exceeded the total amount 139 countries released annually. Re-building bridges, roads, schools, homes, businesses, and hospitals destroyed during the invasion, and construction of new security walls and barriers further contributed to climate change because these required millions of tons of cement, one of the largest industrial sources of greenhouse gas emissions (Hynes, 2014).

There has been growing awareness regarding the carbon footprint, or the "bootprint" (Branagan, 2013) of the military forces around the world. Admiral Chris Barrie, former Chief of the Australian Defense Force and the Australian representative on the Global Military Advisory Council on Climate Change, was forthcoming about the impact:

Around the globe military forces ... use vast natural land holdings, possess large and dispersed infrastructure assets and consume significant amounts of energy of all natures, but particularly fossil fuels, as well as being major national employers. The world's military forces have a huge carbon footprint! (Barrie, 2017: viii)

What Barrie did not mention was the fact that the U.S. Armed Forces is the largest single climate polluter and contributor to global warming (Hynes, 2014): The carbon footprint is due to the consumption of as much as one million barrels of oil per day, which might translate into about 5 percent of current global warming emissions. Hynes (2014) urges to reader to think about the footprint in terms of population: A tiny percent of the world population is generating 5 percent of emissions.

Studies focusing on carbon dioxide emissions and ecological footprints (Clark et al., 2010; Jorgenson, 2005; Jorgenson et al., 2010) confirm the contribution of armed forces to climate change. A big military presence or a high level of expenditures per soldier is directly linked the scale and intensity of carbon dioxide emissions (Jorgenson et al., 2010). High military expenditures per soldier lead to high energy consumption (Clark et al., 2010). The researchers emphasize the need to consider the ecological consequences of military forces, regardless of whether they are engaged in conflicts or not.

Evidence from the Costs of War Project (Crawford, 2019) has confirmed the high environmental cost specifically for the wars waged by the U.S. in the 21<sup>st</sup> Century:

[F]rom 2001 ... through 2017 is that the US military has emitted 1,212 million metric tons of greenhouse gases... In 2017, for example, the Pentagon's greenhouse gas emissions were greater than the greenhouse gas emissions of entire industrialized countries as Sweden or Denmark.[The] emissions for all military operations from 2001 to 2017 are estimated to be about 766 million metric tons of CO2e. And of these military operations, it is estimated that total war-related emissions including for the "overseas contingency operations" in the major war zones of Afghanistan, Pakistan, Iraq and Syria, 5 are more than 400 Million Metric Tons of CO2e.

The report concludes that current debates regarding reducing and mitigating climate change must consider the contribution of the U.S. Department of Defense to greenhouse gas emissions. This is a sound recommendation given the fact that the U.S. Armed Forces is the world's largest institutional user of petroleum and therefore the single largest producer of greenhouse gases. This recommendation and other evidence regarding the impact of war and other military activities on climate change is yet to be considered in psychology.

The evidence regarding military pollution, environmental destruction as a war strategy, and nuclear weapons' environmental impact is not difficult to find or comprehend. The evidence regarding the contribution of the U.S. Armed Forces to climate change is also quite easy to find and comprehend: Military emissions are greater than the total

emissions produced by industrialized countries. Military emissions from 2001 through 2017 are equivalent to the annual emissions of 257 million passenger cars, more than double the amount currently in traffic in the U.S. Of the total emissions between 2001 and 2017, more than 400 million metric tons of greenhouse gases are directly due to war-related fuel consumption. This is equivalent to the destruction of 9 million trees, which absorb carbon dioxide and offset the production of greenhouse gases.

In other words, a single source, namely the U.S. military, is far more destructive for the climate compared to emissions from cars or the destruction of forests. Emissions from cars or from civilian air traffic are exactly the kind of issues psychologists focus on when they speak of behavior or attitude change in relation to climate change. In the same vein, emphasis is often placed on the carbon footprint of civilian aircraft even though the U.S. Air Force jets are the leading military fuel consumers.

#### Militarism in psychology

Almost two decades ago, the **Handbook of Environmental Psychology** (Bechtel & Churchman, 2002) was published. The 736-page handbook did not contain any mention of the environmental impact of military activities. The psychological literature on the environment and particularly on climate change has expanded since then but little has changed regarding military activities. It is time to examine the reasons why psychologists have been negligent regarding military pollution, environmental destruction as a war strategy and the environmental impact of nuclear weapons. It is also definitely time to ask the same question regarding the contribution of the U.S. military to climate change.

One reason might have to do with where psychology is being produced. For decades, psychology has been strongest in the Global North, both in terms of institutionalization and impact (Değirmencioğlu, 2021). Mainstream psychology reflects the ideologies, priorities, values and biases that are dominant in the Global North and particularly in the U.S. It is safe to argue that mainstream psychology has been strongly influenced first by the militaristic rhetoric during Cold War and by the unpredictable security risks parrative after the end of Cold War.

The militaristic narrative has always placed the threats away from the U.S. and NATO members. The narrative and the implicit bias are easy to find because they are repeated again and again: In a world where threats are multiplying and terrorism is on the rise, national security is always at risk and a strong military force is needed. Therefore, military spending must continuously increase. This point is repeated in professional and lay publications, until it sounds commonsensical:

Global defence spending rose by 4.0% in real terms compared to 2018 data ... This was the largest increase observed in ten years. In 2019, defence spending by both China and the US rose by 6.6% over 2018. ... the US increase alone – at US\$53.4bn – almost equalled the UK's entire 2019 defence budget of US\$54.8bn.

The narrative of unpredictable security risks was bolstered by the attacks on 11 September 2001 (Huddy & Feldman, 2011). A long list of scientists, including psychologists, vocally supported the Bush Administration's response, which was promoted as the "War on Terror" and resulted in the invasion of Iraq in March 2003. Since 2001, the U.S. has been continuously waging war of various scales across the world: Counter-terrorism operations, undertaken by the US military forces or by other means, multiplied in more than 80 countries (Crawford, 2019).

A second and crucial reason why mainstream psychology in the US has been silent regarding the consequences of military activities and of militarism in general is the long-lasting professional alliance with the military. Psychologists started serving the military more than a century ago and the discipline benefited from this alliance in many ways. After World War II, the alliance grew so close that the relationship became a foundational one for APA (Değirmencioğlu, 2021). One of the most visible results of this collaboration is the number of psychologists employed by the Veterans Administration: The Veterans Administration is the largest employer of psychologists in the U.S. The APA continuously presents itself as the advocate for the well-being of veterans (Değirmencioğlu, 2010; 2021).

## National security psychology

In the wake of the "War on Terror", there was a concerted and intense effort to re-brand military psychology as "national security psychology". The effort crystallized in a book titled "Psychology in the Service of National Security" (Mangelsdorff, 2006), edited by a military psychologist and published by APA. The militaristic bias in the book is shockingly obvious and the emphasis on the role of psychology is very bold:

The security of the U.S. has been threatened by numerous crises, natural disasters, and enemy forces since the nation's beginning. (...) Psychologists play a vital role in homeland defense and military readiness. (2006: 7-8)

The U.S. is in a global war on terrorism (...) psychologists and the American Psychological Association have been an integral part of the homeland defense

<sup>&</sup>lt;sup>4</sup> Editor's Introduction. (2020). The Military Balance, 120:1, 5-6, DOI: 10.1080/04597222.2020.1707959.

efforts for all of the 20<sup>th</sup> century. Now everyone needs to be involved to address current security challenges.(2006: 5)

National security has changed from threats of war and invasion by other nationstates to a much broader definition that also includes community responses to natural disasters, technological failures, domestic disturbances, and domestic and international terrorism. Security needs of the U.S. shaped the evolution of its society, the roles and functions of its armed forces, the organization of national security, and the development of psychology. (...) Psychologists play a vital role military readiness. The story of psychologists in the armed forces addressing national security challenges is the story of the evolution of the science and practice of psychology itself. (2006: 9)

These quotes combine militarism with the hysteria fueled primarily by the U.S. government of the time to promote further involvement of psychologists in an expanding oppressive national security apparatus: The homeland is under attack. Psychologists have always been part of the national security apparatus and military psychologists are uniquely well-equipped to serve national security, now under a new label "national security psychologists" and in new settings the "War on Terror" might require.

The book jacket presented the militaristic argument emphasising progress: Military psychologists have made diverse contributions to national security and the discipline of psychology itself. The Armed Forces is a progressive institution, which "frequently led American culture in personnel and policy changes that the general population had difficulty accepting". Military psychologists pioneered and tested clinical approaches before widespread use for the general public. The military has been "on the cutting edge in many areas of basic and applied science."

The arguments for "national security psychology" were repeated in the following years: Brandon (2011) argued that psychologists had been an integral part of "national security agencies" since World War I and they should continue to produce psychological science for these agencies after September 11. Kleinman (2012) referred to a "world on fire" to justify the involvement of psychologists in "national security operations," and concluded that the role behavioral scientist play was vital and ethical.

Also in the same era, Mark A. Stall (Staal & Stephenson, 2006) and other military psychologists promoted "operational psychology", defined as "a specialty within the field of psychology that applies behavioral science principles to enable key decision makers to more effectively understand, develop, target, and/or influence an individual, group or organization to accomplish tactical, operational, or strategic objectives within the domain of national security or national defense" (Staal & Stephenson, 2013). An

operational psychologist acts a "behavioral science consultant" to inform or advise an operational decision maker to understand, develop, target, and/or influence an objective. In the context of "national security" or "national defense", the objective may involve an enemy target, a terrorist cell or organization, or an opposing political regime.

The militarism of the era provided a breeding ground for "national security psychologist" and "operational psychologists": Staal and Stephenson (2013) reported that operational psychology had emerged from relative obscurity and developed into an exciting professional subdiscipline. Similarly, the editors of the "Handbook of Military Psychology" reported that wars had been good for military psychologists:

Over 15 years of conflict in Afghanistan, Iraq, and other war-torn areas has led to a heightened recognition of the importance of psychological factors in the health, welfare, and performance of military personnel. Consequently, there has been a rapid increase in the number of psychologists employed by military and defense agencies around the world. (Bowles & Bartone, 2017: p.v)

The promotion of "national security psychology", "operational psychology" and other new terms, such as "deployment psychology" (Değirmencioğlu, 2010), were not independent initiatives or inventions. These initiatives and inventions took place with full knowledge of the U.S. Department of Defense and the Armed Forces, the home for military psychology. Mangelsdorff and other proponents of "national security psychology" were connected to the military. Mark A. Stall, a promoter of "operational psychology", worked at the U.S. Special Operations Command. These developments all took place in a dark era, at the time when the APA administration colluded with the US government (Değirmencioğlu, 2021).

In the light of the long-standing alliance between APA and the military, it is completely unrealistic to expect APA to be very objective regarding the military and military activities, and their environmental impact. In its efforts to influence politicians regarding climate change, APA systematically avoids any mention of the contribution of the U.S. military to climate change.<sup>5</sup>

#### Wake-up call

Militarism in the 20<sup>th</sup> century paved the way to two nuclear massacres and a nuclear arms race that made total annihilation of life on earth a real possibility (Değirmencioğlu, 2020a). The extent of destruction and suffering militarism has brought onto the earth

Advising Congress on the Mental Health Issues Associated with Climate Change. APA Advocacy Washington Update for the week of February 3-7, 2020. <a href="https://www.apaservices.org/advocacy/news">https://www.apaservices.org/advocacy/news</a>

over the course of a century is unknown. Decades after the end of the Cold War, the belief in armed forces as a condition for security lingers on across the world. Military spending is constantly increasing and the U.S. consistently ranks first. This is not surprising because the U.S. Armed Forces have more than two million people, 11 nuclear aircraft carriers, always the most advanced military aircraft, and a presence in outer-space (Crawford, 2019). This military entity is the world's largest institutional user of petroleum and therefore the single largest producer of greenhouse gases.

Psychologists have been extremely negligent with respect to the environmental pollution and destruction militarism has led to. Militarism has made chemical, nuclear or herbicidal warfare possible. Genocides and ecocides are also products of militarism. Psychologists who served the Nazi regime in Germany or those who served the Apartheid regime in South Africa did not have a problem with militarism. During the Cold War, most psychologists were silent regarding nuclear proliferation. Today many psychologists across the world are silent regarding military forces and military spending. This is particularly true for psychologists in the U.S., where psychology has served the military for more than a century. The arguments in this paper are intended as a wake-up call: Psychologists urgently need to wake up to the approaching collapse of the global ecosystem and to the obvious contribution militarism makes to climate change and environmental destruction.

If present arguments have not provided sufficient justification for the urgency, a final warning is in order. Militarism is extremely versatile because a powerful establishment supports and feeds on it. This establishment includes a large number of researchers, many of whom are employed in conservative think-tanks. Climate change has already been subjected to "securitization" and has been turned into a justification for more "security" responses.

Framed as a matter of "environmental security", climate change became a tool for the U.S. military establishment to build bridges with military allies in strategic areas, and collaborate with non-governmental organizations and academics (Hartmann, 2013). In June 2011, CNA and Oxfam America released an influential joint report<sup>6</sup> on how climate change necessitated greater US military involvement in humanitarian and disaster response. The main argument was that military operations would be necessary to protect and support aid providers in distant lands, mainly in the Global South, during political instability due to climate change. Furthermore, the report

<sup>&</sup>quot;An Ounce of Prevention: Preparing for the Impact of a Changing Climate on US Humanitarian and Disaster Response" (A study by CNA and Oxfam America). CNA is a nonprofit research and analysis organization located in Virginia, with close ties to the United States military.

called for joint planning exercises between civilian agencies and the military. Thus, the powerful establishment that promotes militarism can turn the very force that fuels climate change into a savior.

#### **Urgent shift needed**

It is clear that psychological research needs to urgently shift its focus from psychological consequences to the causes of climate change. This necessitates a deliberate move away from militarism. Psychologists cannot continue ignoring or worse serving militarism when it is clear that militarism produces two global threats: A total nuclear war and climate change. Psychology cannot remain silent to quick or slow versions of extinction.

The move away from militarism is timely: The ongoing COVID-19 pandemic has demonstrated that nuclear weapons, massive armies, prisons or border walls do not make humans more secure.

The COVID-19 pandemic has forced psychologists to recognize that the world is faced with catastrophic conditions, such as pandemics, climate change and loss of biodiversity. It has also shown that in a world full of inequalities, solidarity plays an essential role. ... Psychologists can only go forward by grasping causal links between economic development, disappearing biodiversity, climate change and pandemics. Psychologists must prioritize public health over private interests and stop the forces that cripple health services. Psychologists must choose peace over militarism: Militarism wastes funds that should go to public health and puts the world in danger. Psychologists must prioritize addressing racism and discrimination across the world and in their own work settings, organizations and structures." (Değirmencioğlu, 2020b)

The end of the long-standing invasion of Afghanistan provides a second opportunity: The invasion has shown that military operations are futile in achieving officially stated goals (such as security) and are very costly to the invaders. More importantly, the invasion meant injustice and destruction for the people and the land of Afghanistan. The bold and cheerful claims regarding the services provided by military psychologists in Afghanistan and Iraq (Bowles & Bartone, 2017: p.v) should be judged in light of the destruction and injustice inherent to invasions.

The move away from militarism toward a focus on preventing injustice will not originate from APA's corporate apparatus or mainstream psychology. There is no sign that APA has abandoned its long-standing alliance with the military establishment even after

the Hoffman Report. The Association continues to present itself as the advocate for the well-being of veterans.<sup>7</sup>

Pope (2011) highlighted arguments published over decades in mainstream journals for the acceptability for psychologists to participate in initiatives that can cause harm so long as the intent is to do "the most good for the most people" or "to promote or safeguard the best interests of a larger group, or even society at large." Five years after the Hoffman Report, mainstream psychologists are still debating "ethical dilemmas" (Thornewill et al., 2020), rather than how to move away from militarism, in order to prevent the mass suffering and injustices it produces.

#### **Foregrounding justice**

Prominent supporters of militarism in psychology continue to equate serving the military with serving the nation. Martin Seligman (2018), for instance, urged APA "not to waver in its long-standing commitment to serve the nation," and argued that there were attempts to "discourage young psychologists from working with the Department of Defense." Serving the nation is central to the narrative of military psychology and its derivatives (national security psychology, operational psychology and so on).

The militaristic narrative has to be challenged. The fact is that serving the military has nothing to do with public good or welfare: Psychologists can play a more meaningful role in any society if they focus on peace, justice and human rights, rather than on militarism and national security. In the context of the environment, psychologists must choose to defend the planet, which is home to all and inclusive, rather than the nation, which is anthropocentric and exclusionary in multiple ways. In the context of climate change, psychologists can chart a better course of action if they focus on environmental justice rather than environmental security.

Psychology around the world is heavily influenced by mainstream work produced in the U.S. A recent special issue of the European Psychologist, titled "Psychology and the Environmental Crisis" and published in 2021, duplicates the shortcomings in the psychological literature identified in this paper. In particular, there is no mention of militarism or its impact on the environment and on climate change. This is despite the great environmental damage two world wars and the Cold War caused in Europe. For psychologists in the Global South, imitating mainstream U.S. psychology and not

In a recent email news digest, titled "Six Things Psychologists Are Talking About," circulated by APA, the first item was "Trauma – Supporting Afghanistan War Veterans": "The rise of the Taliban in Afghanistan may intensify stress for war veterans still struggling with mental health issues related to their service. Shannon Curry, PsyO, a California-based clinical psychologist specializing in war-related trauma and PTSD, shares advice for talking with veterans in a TODAY article, including reaching out in a way that conveys empathy and avoiding the urge to redirect the conversation." (August 24, 2021)

tackling militarism would be a bigger mistake: Militarism of imperial forces always targeted Global South and continues to do so today. Even climate change, an outcome of militarism, is being used to justify militarism and its never-ending "interventions".

#### **Foregrounding prevention**

Finally, moving away from militarism is a matter of primary prevention – a key principle in public health and community psychology. The psychological literature on climate change has so far focused on individual decisions or the level of the individual. This has resulted in an emphasis on the psychological consequences of climate change. The principle of primary prevention requires a focus on root causes and mass impact as George Albee (1985) put it: "No mass disorder afflicting humankind has ever been brought under control or eliminated by attempts at treating the afflicted individual nor by training large numbers of therapists." History teaches us that militarism has always created suffering for the masses within as well as across borders.

Rejecting militarism serves public health at a global scale because it opens up possibilities for peace and justice, and directly addresses two real threats, namely nuclear annihilation and climate collapse. Today climate change imposes a crossroads on psychologists. Psychologists can continue to neglect or worse serve militarism, or they can focus on peace and demand social and environmental justice. If psychologists should ever join a defense force, they should join the millions who actively demand environmental justice and a sustainable planet.

#### References

Albee, G (1985) The argument for primary prevention. **Journal of Primary Prevention**, **5(4)**, 213-219.

Barrie, C (2017) Foreword. In Thomas, M D (2017) **The securitization of climate change: Australian and United States' military responses**. Cham: Springer.

Beattie, G & McGuire, L (2018) **The psychology of climate change**. London: Routledge.

Bechtel, R B & Churchman, A (2002) (Eds.) **Handbook of environmental psychology**. Danvers: Wiley.

Bowles, S & Bartone, P T (2017) **Handbook of military psychology: Clinical and organizational practice.** Cham: Springer.

Branagan, M (2013) **Global warming, militarism and nonviolence: The art of active resistance**. Basingstoke: Palgrave Macmillan.

Brandon, S E (2011) Impacts of psychological science on national security agencies post-9/11. **American Psychologist**, **66(6)**, 495–506.

Byers, S, Snowe, O, Carr, B, Holdren, J P et al. (2005) **Meeting the climate challenge: Recommendations of the International Climate Change Task Force**. Institute for Public Policy Research, Center for American Progress, and Australia Institute, January. Available at https://www.hks.harvard.edu/publications/meeting-climate-challenge-recommendations-international-climate-change-task-force.

Clark, B, Jorgenson, A K & Kentor, J (2010) Militarization and energy consumption: A test of treadmill of destruction theory in comparative perspective. **International Journal of Sociology, 40(2),** 23-43.

Clayton, S, Devine-Wright, P, Stern, P C, Whitmarsh, L, Carrico, A, Steg, L, Swim, J & Bonnes, M (2015) Psychological research and global climate change. **Nature Climate Change**, **5(7)**, 640-646.

Clayton, S & Karazsia, B T (2020) Development and validation of a measure of climate change anxiety. **Journal of Environmental Psychology, 69,** 101434.

Clayton, S & Manning, C (Eds) (2018) **Psychology and climate change: Human perceptions, impacts, and responses**. London: Academic Press.

Crawford, N C (2019) **Pentagon fuel use, climate change, and the costs of war**. Watson Institute, Brown University.

Değirmencioğlu, S M (2021) Psychology as business and domination: Challenging the colonial and the "import-export" model. In Beshara R K (ed) **Critical psychology praxis: Psychosocial non-alignment to modernity/coloniality**. London: Routledge.

Değirmencioğlu, S M (2020a) From ending war to permanent war. **Peace Review**, **32(3)**, 278-284.

Değirmencioğlu, S M (2020b) A time to speak up. Part of a report titled "How 2020 changed us: Psychology leaders offer their take on how this has been a year of turmoil and transition". **Monitor on Psychology, 51(8),** available at https://www.apa.org/monitor/2020/11/feature-2020-change.

Değirmencioğlu, S M (2010) The psychology of napalm: Whose side are psychologists on? **Journal of Critical Psychology, Counselling and Psychotherapy, 10(4),** 196-205.

Doherty, T J & Clayton, S (2011) The psychological impacts of global climate change. **American Psychologist, 66(4),** 265-276.

Edwards, M W, Schweitzer, R D, Shakespeare-Finch, J, Byrne, A & Gordon-King, K (2019) Living with nuclear energy: A systematic review of the psychological consequences of nuclear power. **Energy Research & Social Science**, **47**, 1-15.

Griffiths, P J (2005) Agent Orange in Viet Nam. Critical Asian Studies, 37(1), 141-160.

Hartmann, B (2013) Climate chains: Neo-Malthusianism, militarism and migration. In Methmann, C, Rothe, D & Stephan, B (eds) **Interpretive approaches to global climate governance**. London: Routledge.

Hayes, K, Blashki, G, Wiseman, J, Burke, S & Reifels, L (2018) Climate change and mental health: Risks, impacts and priority actions. **International Journal of Mental Health Systems, 12(1),** 1-12.

Hayes, K & Poland, B (2018) Addressing mental health in a changing climate: Incorporating mental health indicators into climate change and health vulnerability and adaptation assessments. **International Journal of Environmental Research and Public Health**, **15(9)**, 1806.

Huddy, L & Feldman, S (2011) Americans respond politically to 9/11: Understanding the impact of the terrorist attacks and their aftermath. **American Psychologist**, **66(6)**, 455-467.

Hynes, HP (2011) The invisible casualty of war. **Peace Review**, **23(3)**, 387-395.

Jorgenson, A K (2005) Unpacking international power and the ecological footprints of nations: A quantitative cross-national study. **Sociological Perspectives**, **48(3)**, 383-402.

Jorgenson, A K, Clark, B, & Kentor, J (2010) Militarization and the environment: a panel study of carbon dioxide emissions and the ecological footprints of nations, 1970–2000. **Global Environmental Politics**, **10(1)**, 7-29.

Kleinman, S M (2012) World on fire: The vital—and ethical—role of behavioral scientists in national security operations. **Peace and Conflict: Journal of Peace Psychology, 18(4),** 405–407.

Lee, J R (2009) **Climate change and armed conflict: Hot and cold wars.** London: Routledge.

Mangelsdorff, A D (2006) (Ed). **Psychology in the service of national security**. Washington, DC: American Psychological Association.

Mert, A (2013) Discursive interplay and co-constitution: Carbonification of environmental discourses, In Methmann, C, Rothe, D and Stephan, B (Eds.) (2013) **Interpretive approaches to global climate governance**. London: Routledge.

Messer, K D, Schulze, W D, Hackett, K F, Cameron, T A, & McClelland, G H (2006) Can stigma explain large property value losses? The psychology and economics of Superfund. **Environmental and Resource Economics**, **33(3)**, 299-324.

Nordås, R & Gleditsch, N P (2007) Climate change and conflict. **Political Geography, 26(6),** 627-638.

Pope, K S (2011) Psychologists and detainee interrogations: Key decisions, opportunities lost, and lessons learned. **Annual Review of Clinical Psychology, 7,** 459-481.

Seligman, M (2018) The Hoffman report, the Central Intelligence Agency, and the defense of the nation: A personal view. **Health Psychology Open, 5(2),** 1-9.

Smith, P N, Theodorakis, C W, Anderson, T A and Kendall, R J (2001) Preliminary assessment of perchlorate in ecological receptors at the Longhorn Army Ammunition Plant (LHAAP), Karnack, Texas. **Ecotoxicology, 10,** 305–313.

Staal, M A & Stephenson, J A (2013) Operational psychology post-9/11: A decade of evolution. **Military Psychology**, **25(2)**, 93–104.

Staal, M A, & Stephenson, J A (2006) Operational psychology: An emerging subdiscipline in psychology. **Military Psychology**, 18, 269-282.

Swim, J K, Stern, P C, Doherty, T J, Clayton, S, Reser, J P, Weber, E U, Gifford, R & Howard, G S (2011) Psychology's contributions to understanding and addressing global climate change. **American Psychologist**, **66(4)**, 241–250.

Theisen, O M, Gleditsch, N P & Buhaug, H (2013) Is climate change a driver of armed conflict?. **Climatic Change**, **117(3)**, 613-625.

Thornewill, A, DeMatteo, D & Heilbrun, K (2020) In the immediate wake of Hoffman's independent review: Psychologist and general public perceptions. **American Psychologist**, **75(5)**, 694-707.

Van der Linden, S, Leiserowitz, A, Rosenthal, S & Maibach, E (2017) Inoculating the public against misinformation about climate change. **Global Challenges, 1(2),** 1600008.

Van der Linden, S, Maibach, E & Leiserowitz, A (2015) Improving public engagement with climate change: Five "best practice" insights from psychological science. **Perspectives on Psychological Science, 10(6),** 758-763.

Wilcox, F A (2011a) **Scorched earth: Legacies of chemical warfare in Vietnam**. New York: Seven Stories Press.

Wilcox, F A (2011b. Waiting for an army to die: The tragedy of Agent Orange. New York: Seven Stories Press, 2011 (2nd Edition).

Wissenschaftlicher Beirat der Bundesregierung Globale Umweltveränderungen (2008) **Climate change as a security risk**. London: Earthscan.

Zierler, D (2011) **The invention of ecocide: Agent Orange, Vietnam, and the scientists who changed the way we think about the environment**. Athens: University of Georgia Press.