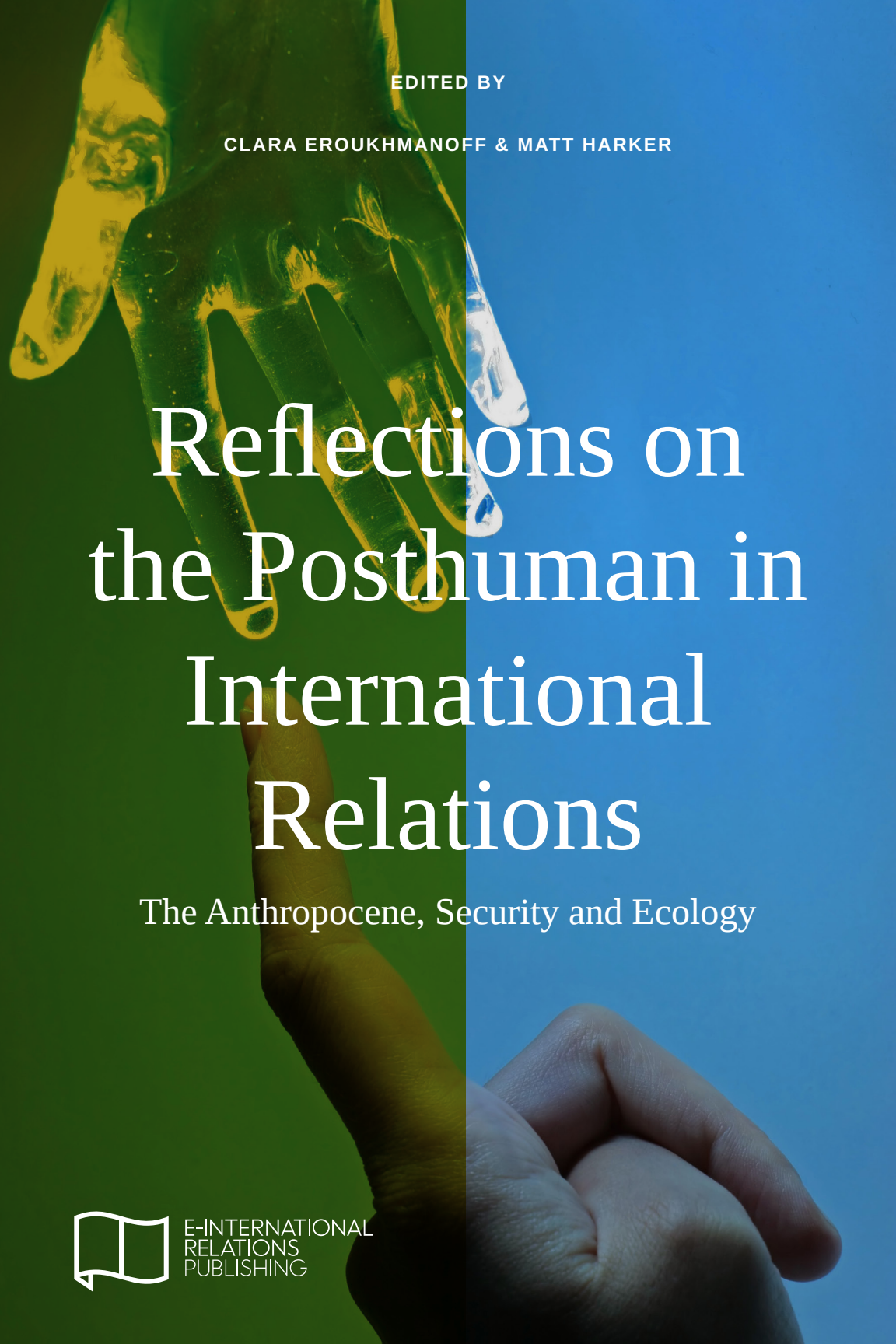

EDITED BY

CLARA EROUKHMANOFF & MATT HARKER

Reflections on the Posthuman in International Relations

The Anthropocene, Security and Ecology

E-INTERNATIONAL RELATIONS PUBLISHING

Reflections on the Posthuman in International Relations

The Anthropocene, Security and Ecology

EDITED BY

CLARA EROUKHMANOFF & MATT HARKER

E-INTERNATIONAL
RELATIONS
PUBLISHING

E-International Relations
www.E-IR.info
Bristol, England
2017

ISBN 978-1-910814-31-4 (paperback)
ISBN 978-1-910814-32-1 (e-book)

Production: Michael Tang
Cover Image: (tbd)

A catalogue record for this book is available from the British Library

E-IR Edited Collections

E-IR's Edited Collections are open access scholarly books presented in a format that preferences brevity and accessibility while retaining academic conventions. Each book is available in digital and print versions and is published under a Creative Commons CC BY-NC 4.0 license. As E-International Relations is committed to open access in the fullest sense, free electronic versions of all of our books, including this one, are available on the E-International Relations website.

Find out more at: http://www.e-ir.info/publications

About the E-International Relations website

E-International Relations (www.E-IR.info) is the world's leading open access website for students and scholars of international politics, reaching over 3 million unique readers. E-IR's daily publications feature expert articles, blogs, reviews and interviews – as well as student learning resources. The website is run by a registered non-profit organisation based in Bristol, England and staffed with an all-volunteer team of students and scholars.

Abstract

This book exposes a much needed discussion on the interconnectedness between objects, organisms, machines and elemental forces. It seeks to disturb dogmatic ontologies that privilege human life and successfully questions the separation between the natural and human worlds. By doing so, the collection confronts, challenges, and energises discussion beyond International Relations' traditional territorial lines. By revealing the fragility of mainstream narratives of the 'human,' each author in this collection contributes to an unsettling vision of a posthuman world. Questions of what *the future* beyond the Anthropocene looks like pervasively infiltrate the collection and move away from a system that all too often relies on binary relationships. In contrast to this binary view of the world, *Reflections on the (post)human* (re)entagles the innate complexities found within the world and brings forward a plurality of views on posthumanism.

Editors

Clara Eroukhmanoff is a Lecturer in International Relations at London South Bank University. She has published in *Critical Studies on Terrorism*, *Critical Studies on Security* and *International Studies Review* and is currently working on her first monograph entitled 'The Securitisation of Islam after 9/11: Indirect Speech Acts and Affect in the United States' with Manchester University Press.

Matt Harker is a PhD Candidate at the Centre for the Study of Theory and Criticism at Western University in London, Canada. His work connects questions of biometric borders, landscapes, with questions of the social media, digital body, and conceptually understands these questions through the notion of exile. His work is grounded in meta-theoretical questions on the status of the contemporary body and theorises its condition as exilic.

Acknowledgements

We would first like to thank our contributors who have worked to produce a fascinating collaborative project and who put so much effort into making it an enjoyable experience for the editors. This project started when Clara attended a roundtable on 'posthuman security' at the European International Studies Association annual conference in 2015. She was stunned by the challenges that a posthuman agenda brought to the table. A first mini-series with the roundtable panellists (Audra Mitchell, Matt McDonald, Elke Schwarz and Carolin Kaltofen) was published online by E-International Relations. Enthusiasm about this mini-series, from our readers, our editor-in-Chief Stephen McGlinchey, and from the authors themselves, encouraged us to invite more people to the conversation. The authors who joined the mini-series (Olaf Corry, Cameron Harrington, Stefanie Fishel, Rafi Youatt, Delf Rothe and Darian Meacham) were not only willing to work with an already existing theme but also suggested original ideas that were central to this collection. A special thank you to the authors of the Introduction (Audra Mitchell and Matt McDonald) who had important input in organising this collection. We are very grateful to E-International Relations and in particular to Stephen McGlinchey, who has given us, the editors, so much support throughout the commissioning and editing process and who made sure to answer our constant questions promptly. Stephen was also right to point out that an edited collection always takes longer than it seems! Lastly, a thank you is owed to the E-International Relations team who always manages to spot the mistakes that we editors fail to notice.

Contributors

Olaf Corry is Associate Professor of International Relations at the University of Copenhagen. His books include *Constructing a Global Polity* (2013) and *Traditions and Trends in Global Environmental Politics: International Relations and the Earth* (2017) (with Hayley Stevenson). He has published articles on climate change, risk and security, environmental politics and social movements and International Relations theory in journals including Review of International Studies, Millennium, International Political Sociology and Global Environmental Change.

Stefanie Fishel is an Assistant Professor of Gender and Race at the University of Alabama. She is author of the book *The Microbial State: Global Thriving and the Body Politic.*

Cameron Harrington is an Assistant Professor in the School of Government and International Affairs, Durham University (beginning September 2017) and is a nonresident Research Associate in the Global Risk Governance Programme at the University of Cape Town. He is the co-author (with Clifford Shearing) of the book *Security in the Anthropocene: Reflections on Safety and Care*

Carolin Kaltofen is a post-doctoral research fellow at the Department of Science, Technology, Engineering and Public Policy (University College London), where she is heading a research project on 'Science Diplomacy', which maps the diverse interactions between the sciences and global governance. She has been teaching at the Department of International Politics at the University of Aberystwyth, where she obtained her doctorate degree in International Politics. Carolin's research is located at the intersection between metaphysics, materialisms, and the study of science and technology. She is particularly interested in how new technologies change the conditions of the political and being in the world.

Matt McDonald is a Reader in International Relations in the School of Political Science and International Studies at the University of Queensland. His research is in the area of critical theoretical approaches to security, and their application to environmental change and Australian foreign and security policy. He is the author of *Security, the Environment and Emancipation* (Routledge 2012) and co-author (with Anthony Burke and Katrina Lee-Koo) of *Ethics and Global Security* (Routledge 2014).

Darian Meacham is assistant professor of philosophy at Maastricht University, Maastricht, Netherlands, and Deputy Director for Responsible

Research and Innovation at BrisSynBio (a UK Research Council Funded Synthetic Biology Research Centre). He has published several articles and book chapters on human enhancement, and is currently interested in the social and political impact of automation technologies.

Audra Mitchell is the CIGI Chair in Global Governance and Ethics and Associate Professor at the Balsillie School of International Affairs, Wilfrid Laurier University, Canada. She has published widely in the areas of posthumanist IR, global ethics, large-scale harm, cosmology and violence. Her current research explores the ethics of global extinction.

Delf Rothe is a researcher and lecturer at the Institute for Peace Research and Security Policy in Hamburg, Germany. He received his PhD from the department of International Relations at the University of Hamburg in October 2014. Rothe has published widely on issues such as climate change and security discourse, visual security, resilience or environmental migration. He is the author of *Securitising Global Warming: A Climate of Complexity* (Routledge 2016),

Elke Schwarz is Lecturer in Politics and International Relations at the University of Leicester, UK. She holds a PhD from the London School of Economics in the ethics of international political violence. Her current research focuses on the ethical and political implications of lethal autonomous technologies and contemporary discourses on the posthuman.

Rafi Youatt is Assistant Professor of Politics at the New School for Social Research and Eugene Lang College. He is the author of *Counting Species: Biodiversity and Global Environmental Politics*, and has been published in journals including Millennium, Political Research Quarterly, Environmental Values, and International Political Sociology. He is currently completing a book on interspecies relations and international relations.

Contents

10

Metternich, The Gut-Brain Axis, and the Turing Cops: The Subjects of Posthuman IR

DARIAN MEACHAM

Is a Posthuman World a World without Human-subjectivity?

Approaching the relation between posthumanism and international relations (IR) from some disciplinary distance, there seem, at first pass, fewer more awkward intellectual travelling companions. The very idea of a nation is to a large extent tied up historically and epistemologically with the idea of the human being, and more precisely the human subject of the human sciences. More specifically, nations are social institutions that are constituted by conscious, active, and supposedly autonomous human subjects who identify with the nation in a reciprocal process of institutional reinforcement creating in the process both the nation and national-subjects. Whether one adheres to a primordialist positon that modern nation-states are founded upon proto-national communities or a modernist one that the socio-economic conditions of the industrial age created a need for a new political form, the nation-state, and a new political subject, the national citizen, it is the case that modern nations are institutions that require speaking, remembering, interacting subjects, in other words, subjects that navigate the world like us. That's not to say that other forms of political life are not possible for human-subjects, they obviously are, but rather that there seems to be a special relation and perhaps one of dependency between nations and certain types of subjects. And in gratitude for their existence the nation-state provides these newly instituted subjects a pole around which to situate an identity and orient relations with other (human) subjects, as well promising a degree of material security and stability to accompany the spiritual.

The nationalities of non-human subjects are, pet passports notwithstanding, irrelevant to the perseverance of the nation. If in a radical form the project of post-humanism proposes radically altering the human-subject, this will likely mean altering the viability or even possibility of the nation-state as a political form. This may of course be a desirable outcome, but then our questions about posthuman security will no longer involve nations and their subjects as the central actors of this drama and so a posthuman post-IR will have to undertake rethinking both sides of this dyad. Harrington (this volume) notes that 'To speak of security absent the human subject has been considered irrational or worse, uninteresting.' I might provocatively go one step further, speech, absent the human subject, does not seem to me to be something that we can speak about (cf. David Roden 2015 on speculative post-humanism and the 'disconnection thesis').

Moreover, concrete and historical international relations have to some extent developed in the modern period alongside the sciences of and variations on the theme of the subject. Metternich's Concert of Europe was designed to suppress or at least control the growing power of national subjectivity: the idea being that truly great, autonomous, sovereign men would meet one another in order to settle disputes and retain not only their balance of territorial power, but also their power over and against the mass of newly formed national subjects whose national desires and ambitions, though in some cases stoked by these same great men for various purposes, threatened to grow out of control, overturning established orders.[22] Metternich's geo-political dream of an orderly European theatre of interstate relations came unravelled, at least in part, precisely due to the growing power of the mass political mobilization and mass parties which began to exert influence on domestic and international relations. This new form of suddenly politically relevant and active human being, the mass subject, was technologically mediated in its appearance through the proliferation of communication technologies and growing literacy among the labouring classes, which made representation by mass parties, with their correlative mechanisms of internal and external governance, possible.

The rise in influence of mass parties in (European) international relations is correlated to the emergence of a new form of political subjectivity and power, the mass-subject of disciplinary power that Michel Foucault investigates in such works as *The Birth of the Clinic* (1963) and *Discipline and Punish: the birth of the prison* (1975). The development of the human, social, and life

[22] The so-called congress system of European international relations did also have a basis in law. The final act of the Vienna Congress stipulated that the border arrangements established by the congress could not be altered without agreement from the eight signatories (Soutou 2000).

sciences in whose frame the human subject gained its sense as an at least potentially rational and autonomous agent facilitated the growth of the techniques would be used to undermine this rational autonomy in the creation of the plastic, normalizable and administered subject of mass-society. This is not the place of course to recount this full story and the point of this grossly incomplete sketch of the development of the relation between the institution of the human subject and the institution of the nation-state is merely to point out a correlation between the development of the modern subject and the modes and actors of international relations. As Harrington (this volume) notes, 'exploration of alternative political identities beyond the state – such as nations, races, classes, movements, religions, cultures, or gender' (Walker 1993, cited by Harrington) are not foreign to IR and I do not wish to present an overtly state-centric idea of contemporary IR. But I think that the point holds, as the universe of IR expands to include institutions other than states, such as those mentioned above, the centrality of the human subject remains.

What Foucault, among others, shows is that the human-subject is not a fixed-essence with determinate capacities and structures of engaging with the world and others in it. Rather, sciences and technologies of the subject have developed in correlation with the sciences, techniques, and institutions of political life. Further developments, such as the discovery (if that is the right term) of the Anthropocene, discussed at considerable length throughout this volume, necessitate again a rethinking of this relation between the institutions of human-subjectivity and the *polis*.

The question then is what shift in our thinking about political institutions and specifically international relations and security will be enacted if we try to take seriously the idea of the post-human as a possible next chapter in this story of the modern (European?) human subject. A presupposition and a possible paradox should be noted here. First, I presuppose that the notion of the post-human has not only to do with the human as a biological entity, an individual of a group defined by one or another species concept,[23] but also, and perhaps primarily, with a specific type of subjectivity, namely the conscious, rational, and autonomous agent described by modern philosophy, and perhaps most exemplary, the addressee of the opening of Immanuel Kant's essay 'What Is Enlightenment' who has only to free himself of his 'self-imposed immaturity' (Kant 1784). Schwarz (this volume) makes a similar point, arguing that security, ethics and politics are fundamentally human constructs. I wish to push this point a bit further, emphasising aspects of specifically human subjectivity. Thus, the significance of the 'posthuman' in the idea of posthuman international relations and security pertains not only to a

[23] See here for a short list of species concepts. http://science.kennesaw.edu/~rmatson/Biol%203380/3380species.html

questioning, critique, or de-centering of humans qua individuals or population of a particular species, but also to the status of a certain form of subjectivity or relation between the individuals of this particular biological species, other members of that species, and the surrounding milieu, including of course the individuals and populations of the rapidly dwindling multitude of other species that make up perhaps the most significant part of our human (species) milieu. The possible paradox stems from the presupposition.

The point that I hoped to make in the paragraphs above is that the political form of the nation is closely tied, perhaps inextricably, to a certain understanding of the human subject. It is not just that there are no nations and no politics without subjects, but also no speech without subjects. If the posthuman entails the end or transformation of the specific type of subjectivity proper to the political form of the nation, it makes sense to ask how viable the very notion of posthuman politics or inter-*national* relations may be, and what security premium we might be willing to pay to maintain the form of subjectivity proper and necessary to the nation. Thus I am in obvious agreement with Mitchell (this volume) when she argues that it is 'not possible to entirely escape the constructs, norms and shared experiences that help to define one's life as human' and also Rothe (this volume) in having a suspicion about any normative claim to overcome the subject/object divide. However, I do not think that we can have anything meaningful to say about what it is like to experience, know or act beyond the constraints of subjective life, let alone conceive of a politics beyond the subject/object divide.

Politics is classically and I think ultimately about the life of the *polis*, a life in common shared by human, subjective individuals. If we abandon, either epistemologically or ontologically the preconditions of this form of life, i.e. subjectivity, I think that we are stepping into a political unknown. I am less than convinced that, given the challenges introduced largely by the havoc modern human subjects (and perhaps one should add here, European) and their political forms have visited upon this planet, those we now associate with the term Anthropocene, we should be too quick to jettison either in our thinking or our doing, the precondition and indeed constraints of modern political life before asking what institutions can follow. I should be clear that I consider the human subject one of the foundational institutions of modern political life; it is an institution that while foundational of other political institutions, is also continuously acted upon and transformed by them. The point then, as Fishel (this volume) argues, is not to abandon but to recast the institution of the subject such that it is capable of fostering more 'just and peaceful relationships' with other subjects and with other entities in its milieu. Youatt (this volume) makes a similar claim in arguing that thinking how the notion of the posthuman could enter into IR discourse entails staying 'with the production of different kinds of humans as a question of political analysis.'

Thus it is certain that insofar as a posthuman world would mean a post-subjective world, it will be a world without us as we know us or could think about knowing us. As this volume demonstrates, this is by far not the only meaning of the posthuman, but it is I think an important one to grapple with. From an ecological perspective that tries to place the value of human-subjective life within a broader value context, wherein other forms of life (non-human animals, plants, bacteria, etc.) may have value claims made on their behalf which equal or even outweigh human claims, a world without human subjects is indeed likely to be a more secure or flourishing world. The South African philosopher David Benatar (2006) has recently made an argument against the continued proliferation of the human species. His argument revolves around the inevitability of human suffering; but our own species' self-concern aside, it seems a safe bet that the nonhuman subjects of this planet would be grateful for such a decision, and those parts of the biome not capable of such subject-object relations as gratitude better off.

The defence of the human subject that I have tabled here certainly does not mean that we cannot be critical of the notion of the subject. It is indubitably not the case that we must retain a vision of IR or global-security like the one imagined by Hans Morgenthau (see Corry, this volume), wherein a science of immutable human nature was necessary to understand and order global politics. The development of evolutionary biology has already rendered such an idea of human nature untenable. As Hull (1986, p.11) argues, 'any attempt to base anything, including ethics or politics, on human nature is basing it on historical happenstance.'

Thinking Ecologically about Ourselves or Centrifugal-anthropocentrism

An approach to posthuman IR and security that I would call ecological thinking or centrifugal-anthropocentrism, starts from the notion of posthumanism as a decentring critique of the primacy of certain forms or conceptions of human-subjectivity and argues for an ecological repositioning of the human. The term ecological here can be understood in two ways. On the one hand is the clear emphasis on ecologies as the focus of IR and security discourses. Ecologies can of course be seen as problems to be managed toward various human ends, this is the position of climate-change-updated traditional forms of IR and security discourse. The more radical way of thinking the relation between ecologies and security, as suggested by McDonald (this volume) is to orient security discourse 'towards the resilience of ecosystems themselves, with this in turn enabling the protection of the most vulnerable across time, space and species.' There seems to me to be a risk here that this orientation may reveal to us that the presence of our species has, generally speaking, a negative impact on the ecosystems that

now become our primary security concern. But an ecological systems approach to security, even while retaining a weak anthropocentric presupposition, i.e. acknowledging the 'embeddedness of humans in complex worlds co-constituted by diverse beings' (Mitchell 2014 and this volume) – still seems a positive step forward toward greater planetary and indeed human security even if it retains an admittedly more relational and inter-dependent notion of human life as its central concern.

The idea of ecology is also relevant in another manner already suggested by weak anthropocentrism. The human subject can itself be considered from an ecological perspective, not just as functioning within ecologies, but as constituted within them. Gut flora is a clear example of this; human microbiota are essential to many basic vital human functions, and disturbances within the gut microbiome can be extremely detrimental to human health. The same holds for other species. It is not just digestive function that can be characterised ecologically, the 'gut microbiota is associated with metabolic disorders such as obesity, diabetes mellitus and neuropsychiatric disorders such as schizophrenia, autistic disorders, anxiety disorders and major depressive disorders' (Evrensel and Ceylan 2015, p.239). In other words, fundamental dimensions of what are considered normal and abnormal human subjective functions are linked not to a central pole of consciousness or the like but ecological systems constituted in part of other organisms in which human subjectivity is constituted and without which it is not possible. What such studies call into question is precisely the otherness of other organisms and the unity or sameness of ourselves; an ecological approach to subjectivity demonstrates that the subject does not belong to a unitary species or a unitary body, if that body is somehow purified of its constitutive relations with its surrounding milieu. The so-called 'gut-brain axis' points, in a very concrete fashion, to a way of thinking about posthumanism from a radical and perhaps Deleuzian perspective. As Kaltofen (this volume) puts it this 'radical end' of the posthuman spectrum contends that 'bodies are not bound by skin, but rather by flows of affect and intensity; where thought is not human in origin, but non-local and presubjective.' I am not sure if the gut-brain axis illustrates all of this, but it does certainly offer a case for saying that thought can be partially inhuman in its constitution; or perhaps better that the human-subject as normally described in its cognitive, rational and affective capacities is ecological in its formation, and that the ecology of the human subject contains a multitude of different species.

Insofar as we are still concerned with the condition and perhaps the flourishing of the human subject, that is, insofar as we remain at least 'weakly anthropocentric', our anthropocentrism has to become centrifugal (and in the case of gut flora centripetal). This means not only broadening the universe of IR to not just include but place at its centre, ecological well-being. At the

same time, while I maintain that the notion of IR does not make sense outside of the frame of subjectivity, ecological thinking forces us to consider the constitution of the subject qua ecology as relational, integrated, impure. One outcome from this might be to say that the human subject is one of the ecologies that we should aim to secure so that it maintains certain capacities that we consider necessary for flourishing; and capacities that allow it to minimise the risk it poses to other ecologies *and to its own*. An ecology of the human-subject is constituted in part by some cell populations that we call our own, gut microbes, technologies like writing, political institutions like human rights, etc. I think that what is important here is understanding how to maintain an equilibrium in which capacities that we value emerge and persist.

So what is called for is an approach that views the concerns of IR or security discourse within nested ecologies which contain, gut-microbiota, organs, human and nonhuman subjects, etc. as well as institutions such as the nation-state or international governance bodies? Security, in this context means maintaining certain ecologies, including the ecology of the human-subject and taking seriously the idea of inter-dependence and co-constitution that sits at the heart of ecological thinking. Jon Turney (2016) has recently discussed the use of militarised immunity language in medical discourse. We can flip this and critique the use of militarised immune metaphors in security discourse. Attempts to isolate nested ecologies from their milieu as though they were self-sufficient substances and not networks of interchange, and this includes attempts to isolate the subject either epistemically or environmentally, only make them more fragile. Turney argues that it is time to abandon outdated notions of how the immune systems works which conceive of it as a barrier against threats to bodily integrity. Instead as the gut-microbiota example illustrates, '[t]he immune system keeps host and microbiome in equilibrium. There is continual action and reaction, like the give and take of a regular conversation. The results help to nurture some bacteria, while reducing opportunities for others (Turney 2016). This revised immune thinking should take its place not only in relation to how we conceive the body, but also how we think about the broader posthuman ecology of IR and security discourse. We need to maintain equilibriums in ecologies that we value. One such ecology may be the human subject itself.

Call the Turing Cops?

In William Gibson's famous cyberpunk novel Neuromancer (1984), the Turing Police are an international law enforcement agency who monitor and enforce laws pertaining to the behavior of artificial intelligences. It is curious that in a volume devoted to posthuman IR and security the subject of big data and associated phenomena (cf. Boyd and Crawford 2011) seem not to be at the

forefront. There is no call to start training Turing Cops in this volume. Nonetheless, it is certainly the case that many if not all of the contributions here acknowledge that human-machine hybridity – or the technological mediation of the human being – is a central concern for post-human thinking. The anthropologist Leroi-Gourhan (1973) characterises the emergence of the human precisely by the 'exteriorization' of capacities through technology. I do not think that arguments in favour of epistemological, ontological or normative human-machine hybridity depart from the domain of human subjectivity conceived ecologically. To the contrary, one can argue, as Leroi-Gourhan does, that subjectivity only emerges in this technological hybridity or exteriorisation.

Yet, it seems a pressing question for posthuman IR and security to ask what challenges or threats are posed by the advent of big data technologies and how the insertion of these technologies into natural-institutional ecologies like the ones mentioned briefly above is likely to alter their configurations and the capacities that they produce. Danaher (2016) refers to the threat of 'algocracy': algorithms are increasingly being assigned control over political decision making-processes. Danaher concludes that we are increasingly divesting governance processes of possibilities for human participation; a very clear sense of what posthuman security and IR might mean. We could push this question even further and ask if the increased frequency by which digital, algorithmically driven, cognitive artefacts[24] are integrated into already ecological (think gut microbiota) cognitive and decision-making processes poses a threat to the stability of the equilibrium that we refer to (often normatively) as human subjectivity? Does the introduction of the technologies grouped under the umbrella into the ecology of human subjectivity place certain capacities at risk? Do new capacities emerge, what is the trade off? This seems like a case for the Turing Police. It seems likely that this is not a purely speculative question. There are numerous experiments testing if sensory substitution devices (SSDs) can become part of extended cognitive systems (e.g. Hurley and Noë 2003; Bach-y-Rita and Kercel 2003; Dotov, Nie, and Chemero 2010). The experiments have shown that in fact sensory-substitution devices can become part of extended cognitive systems and additionally these artefacts partially constitute the extended cognitive system. This reinforces Leroi-Gourhan's much earlier point. The point, coarsely, is that cognitive artefacts do not always remain stand-apart supports for human cognitive systems, but rather become aspects of cognitive ecologies, thus transforming them. If, as Leroi-Gourhan argues, this is not new, but the very definition of the human, then our main concern is not necessarily whether these new forms of hybridity mark a break between the human and the

[24] Cognitive artifacts are devices designed to maintain, display, or operate upon information in order to serve a representational function and that affect human cognitive performance (Norman 1991).

posthuman; indeed by this account we have always been posthuman. The question is if and how ecologies which sustain things that we value about human subjectivity are altered and in what ways.

Perhaps in asking about the relation between the discourses about posthumanism, the human subject, IR, security and the existential challenges created by climate change and the Anthropocene – the constellation of concepts that this volume bravely takes on – there is a choice to be had: work towards securing the ecological/centrifugal subject as a rational and also potentially caring actor capable of at least tying to address the existential security challenges posed by the Anthropocene or admit that the planetary system (Gaia) would be better off without human beings or human subjects. In other words, if we accept the centrifugal notion of the subject that I propose, and also the centrality of human subjectivity to any discussion of politics that we can fathom; then we should try to maintain within this ecological picture the subjective capacities that we care about and which we will undoubtedly need to address the ecological challenges facing the planet. These seem to me to be the two epistemologically coherent options. The notion of the posthuman considered in biological or even functional terms is of course interesting and important, but it is not what is paramount here, since it is – I contend – the human subject and not just the human that matters to politics (IR and security included) properly speaking. The idea of post-subjective IR or security is not something that I think we as subjects can say anything about.

References

Bach-y-Rita Paul and Stephen W. Kercel. 2003. Sensory substitution and the human-machine interface. *Trends in Cognitive Sciences* 7(12): 541-546.

Benatar, David. 2006. *Better Never to Have Been: the Harm of Coming into Existence*. Oxford: Claredon Press.

Boyd, Danah and Kate Crawford. 2011. Six Provocations for Big Data, A Decade in Internet Time: Symposium on the Dynamics of the Internet and Society, September 2011. Available at SSRN: http://dx.doi.org/10.2139/ssrn.1926431. Accessed 17 May 2017.

Danaher, John. 2016. “The Threat of Algocracy: Reality, Resistance and Accommodation”*Philosophy and Technology* 29(3): 245-268.

Dobromir G. Dotov, Lin Nie and Anthony Chemero. 2010. A Demonstration of the Transition from Ready-to-Hand to Unready-to-Hand. *PLoS ONE 5(3)*, e9433.

Evrensel, Alper and Mehmet E. Ceylan. 2015. "The Gut-Brain Axis: The Missing Link in Depression" *Clinical Psychopharmacology and Neuroscience*, 13(3): 239–244.

Gibson, William. 1984. *Neuromancer*. New York: Acebooks.

Hull, David. 1980. "On Human Nature" *Environmental Ethics* 2 (1): 81-88

Hurley, Susan and Alva Noë. 2003. "Neural plasticity and consciousness" *Biology and Philosophy,* 18: 131-168.

Kant, Immanuel. 1784. *Beantwortung der Frage: Was ist Aufklärung? Berlinische Monatsschrift* Friedrich Gedike and Johann Erich Biester (eds.) December 1784 edition. Available online at: https://www.marxists.org/reference/subject/ethics/kant/enlightenment.htm. Accessed 17 May 2017.

Leroi-Gourhan, A. 1973. *Evolution et Techniques II - Milieu et Techniques,* 2d edition, Paris: Albin Michel

Mitchell, Audra. 2014. Only Human: A worldly approach to security. *Security Dialogue*, 45(1), 5-21

Norman, Donald. 1991. Cognitive Artifacts. In: J.M. Carrol (ed.) *Designing Interaction: Psychology at the Human Computer Interface*. Cambridge: Cambridge University Press.

Roden, David. 2015. *Posthuman Life: Philosophy at the Edge of the Human*. Abingdon: Routledge.

Soutou, Georges-Henri. 2000. Was There a European Order in the Twentieth Century? From the Concert of Europe to the End of the Cold War. *Contemporary European History*. Theme Issue: Reflections on the Twentieth Century. 9 (3), 330.

Turney, Jon. 2016. *Beyond cell wars*. *Aeon* 28th March 2016. Available online at: https://aeon.co/essays/why-we-should-guard-against-military-notions-of-immunity. Accessed 14 May 2017.

Walker, R. B. J. 1993. *Inside/Outside: International Relations as Political Theory.* Cambridge: Cambridge University Press.

E-IR Edited Collections

Series Editors: Stephen McGlinchey, Marianna Karakoulaki and Agnieszka Pikulicka-Wilczewska

---

This book exposes a much needed discussion on the interconnectedness between objects, organisms, machines and elemental forces. It seeks to disturb dogmatic ontologies that privilege human life and successfully questions the separation between the natural and human worlds. By doing so, the collection confronts, challenges, and energises discussion beyond International Relations' traditional territorial lines. By revealing the fragility of mainstream narratives of the 'human,' each author in this collection contributes to an unsettling vision of a posthuman world. Questions of what the future beyond the Anthropocene looks like pervasively infiltrate the collection and move away from a system that all too often relies on binary relationships. In contrast to this binary view of the world, the book (re)entagles the innate complexities found within the world and brings forward a plurality of views on posthumanism.

Edited by

Clara Eroukhmanoff and Matt Harker

Contributors

Olaf Corry, Stefanie Fishel, Cameron Harrington, Carolin Kaltofen, Matt McDonald, Darian Meacham, Audra Mitchell, Delf Rothe, Elke Schwarz and Rafi Youatt.

www.E-IR.info

ISBN 978-1-910814-31-4

E-INTERNATIONAL RELATIONS PUBLISHING