

Resilience, Acceptability and the Postcolonial Moment – Towards a Culture-Sensitive Approach to Security Research in Maritime Contexts

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Abstract—This paper explores the role of the culture-specific dynamics that underlie present-day processes of knowledge and technology transfer from the Global North to the Global South. Drawing on resilience as a concept that is apt to bridge the disciplinary divide between the social as well as the natural and engineering sciences, and framing it as an acceptability-oriented issue, the authors aim to expand the debate on responsible technology transfer into the realm of maritime security research. By bringing different conceptualisations of resilience into conversation with critical postcolonial theory, the paper further contributes to the scholarly discussion on interdisciplinarity in postcolonial Science and Technology Studies.

Index Terms—resilience, acceptability, postcolonial theory, science and technology studies

I. INTRODUCTION: RESILIENCE – A TRAVELING CONCEPT

Resilience is a traveling idea par excellence: one that transgresses disciplinary boundaries from the ‘hard’ to the ‘soft’ sciences [1]. Denominating a technical infrastructure’s or a social entity’s capacity to endure or adapt to disruptions that are seen as risks to their functioning, safety or integrity, the term resilience invites for – and commutes between – a social scientific as well as a (civil) engineering-related understanding.¹

- 1) Indigenous communities in various parts of the world have repeatedly demonstrated their ability to reframe, regulate and reclaim their collective practices in the face of existential threats – threats often brought to them

¹In fact, the idea of resilience travels further. In addition to social resilience and resilience of technologies, there is a distinctly ecological understanding of the term, a psychological one, etc. For an overview of these including neighboring concepts (synonyms such as ‘adaptive capacity’ as well as that resilience has come to replace, e.g. ‘sustainability’) and its use (and usability) in ethnographical and culture anthropological contexts, see [2].

(or imposed on them) through natural or man-made interventions and occurrences.²

- 2) Technical infrastructures are likewise exposed to various risks and hazards, and Research and Development answers to challenges of this kind. Engineering, a problem-oriented practice in the understanding of ‘to engineer resilience’ has conventionally been subdivided into four properties. It is supposed to enhance or improve robustness, resourcefulness, redundancy and rapidity (of response) [3].

The two understandings of the word resilience – the social scientific and the one from the engineering disciplines – thus share common presumptions and warrant an applicability to both communities (a society, a culture) and technicalities.

So far, so undisputed. The following considerations wish to pick up the ball and drive it to that field in which social (communal, cultural) and technical resilience may meet at eye level even though the common ground shared by both approaches is limited. The aim is to identify zones (and modes) of contact in which techniques and technical infrastructures might benefit from each other symbiotically, notwithstanding the divide in the disciplinary understandings of resilience in order to prevent harm from being done by external actors. By doing that, we will focus on examples from previously colonized communities in the Global South.

A. Scenario: Polynesian Seafarers and the Use of GPS

A possible example for the integration of a piece of technology in traditional practices could be the following: Polynesian seafarers draw on satellite-based on-board navigation tools in

²An example of this, in anthropological research, is Roy A. Rappaport’s study on a Papuan community, *Pigs for the Ancestors: Ritual in the Ecology of a New Guinea People* (New Haven 1967) [4]. Rappaport was the first soft scientist to apply the notion of resilience for social entities, borrowing it from the engineering sciences. For an overview of the term’s career in the scientific communities, see [5].

order to get from one island to the next in times of cloudy, bad weather: when their traditional skills of sea-voyaging with the help of trade winds, the knowledge of currents and familiarity with the positions of stars – the entire intricate orientation system they have developed (and pass on orally from seafarer to seafarer [6]) – fails because of the precluded view of the sky.

The seafarer recognizes, in other words, the limits of their personal, socio-traditionally received skills that warrant their resilience against the hazards of the sea. It is very likely that they might not have ventured the voyage in the first place, expert in weather-forecasting that they are. Or they might have ventured it nevertheless, and were taken by surprise out on the sea, where their capacity to adapt to the unforeseen conditions (overcast, no view of the firmament) that suddenly threaten their existence – their resilience – may prove to be not effective enough.

Situations of this kind are conventionally seen as game-changing drivers: they might influence the seafarer when they finally find a way out of their calamity. The seafarer may be persuaded themselves, and if they are persuasive enough, they go on to convince their fellow seafarers to give the mentioned GPS navigation tools a try. They would subsequently give up their resistance and unease, their probably existent culturally imposed discomfort with a tool that they are from tradition not acquainted with because it was developed by engineers and programmers from the Global North (who may be descendants of imperial colonizers of their archipelago). The seafarer(s) might, however too, refuse the tool and decline its use for precisely the same reason: that it has been offered to them by individuals who figure, arguably, as members of a distrustful culture.

B. Contribution

Through a juxtaposition of both community-based collective practices and engineered technological solutions, this paper touches upon different tools, used in different parts of the world to enhance resilience while observing over-arching ontological similarities as well as culture-specific differences.³ Acts of adaptation inherent to the concept of resilience thereby span across spheres of everyday practices and preparations in light of looming existential threats. As past research has stressed a particular vulnerability of indigenous peoples and countries of the Global South with regard to the effects of climate change in form of i.e. rising sea levels, facilitated and better adapted (maritime) technology transfer becomes an even more pressing issue. Within this argumentative framework, particular attention is drawn to the question how technologies imported to address these and other challenges can be better aligned with local values, belief systems and threat models, especially in view of the colonial past that has shaped most relations between the Global North and South.

In this context and building on Helen Verran's concept of infra-ontology, the paper shifts the focus from a transactional

³Here, the term *ontology* refers to the philosophical study of being and the nature of reality.

to a more relational aspect of resilience and places it at the core of its argument. Reflecting on the eventually routinised dynamics that shape the human and non-human assemblages which lie at the centre of societal responses to various forms of (existential) threats, the importance of acknowledging the different cultural frameworks and presumptions at play in this process is highlighted. Employing the notion of *the postcolonial moment*, the paper finally discusses the identified cultural, scientific and political dichotomies, examining possible future pathways to address some of the distinct challenges that shape technology transfer in general, and acceptability in particular, in a postcolonial setting.

The paper's contributions to the resilience debate in the context of maritime security research are the following:

- 1) The paper calls for a more contextualised study of local practices of resilience prior to the integration of Western technologies by and with local actors.
- 2) It further highlights that a heightened awareness for the culture-specific differences and difficulties that frame any technology transfer, but especially that from North to South, can
- 3) offer a more holistic approach to better understand and address the cultural shortcomings of current practices and thus facilitate a more symbiotic integration of certain technological solutions.

II. TECHNOLOGY ACCEPTABILITY IN A POSTCOLONIAL CONTEXT

In other words, the question of acceptability shifts to the fore. It does so as an index of possible 'travel obstacles' of the idea of resilience.

When thinking it over duly, the challenge of aligning the potentials of existing resilience technologies of, here, North Global maritime infrastructures with culturally traded and passed-on South Global 'techniques' boils down to more than an issue of aiming at an ordinary acceptability, i.e., the way we accept a Teflon pan cover as a more efficient tool to prepare fried eggs, compared to steel pans. In the present scenario, the Teflon pan is no longer a useful, yet competed technology of frying raw food: competed by long-since established and equally efficient cooking techniques and hardware. Less than that: it will raise suspicions about the mindsets and motivations of those offering the Teflon invention in the first place. Neocoloniality raises its head, and any South Global suspicion going in that direction will, first, be rooted in unalienable experience. Second, South Global actors will have their own, distinct ideas of existence, or *ontologies*. The scientific Global North must willy-nilly tune in to types of appropriation of the world as being executed – successfully, at that, and ever since – in those corners of the Globe which it had once and falsely (violently) claimed for itself in an attempt to expand and imperialize.

The issue seems to be at an impasse at this point. What may come to aid are anthropological universalities: *anthropologische Konstanten*, a notion that has not ceded to be a useful term to explicate scientifically presumed or evolutionarily

proven similarities between humans regardless of their cultural differences. Humans are aware of the irrefutability of (their individual) death no matter where, literally, on earth they live; they share affects such as shame or emotions like grief, joy; they cultivate their environs etc. Or to name an example that allows us to tread on postcolonial and yet constructive ground: communities, cultures and indigenous entities in the North and the South have been exercising the burning of soil as a prerequisite to turn land into a useful resource for their living (and they have cultivated sea areas for fishing: not by means of fire, sure, but by cruising and preparing it regularly with canoe boats and weirs).

The agricultural technique of burning the soil has been a case in point for Helen Verran, a STS (Science and Technologies Studies) researcher who sought to identify the differences and similarities – she names them sameness – in the approaches of humans (*anthropoi*) to cultivate their marine or land environment for their own benefit. Explicitly avoiding the pitfalls of defining a meta-ontology that overrides the different modes-of-being under the heading of a universally acknowledged grasp of the world, but insisting on the existence of locally filtered, human understandings of existence and site-specific ontologies as such, Verran has developed a concept of negotiating these ontologies beyond the great divide of former colonizers versus the formerly colonized:

“It is not an ontic domain which supervenes and contains the other two [here, the Indigenous and the received Western, scientific one]. On the contrary, it is an infra-ontology, an inside connection. It takes enough of what matters ontologically to Aborigines when they are dealing with firings, and enough of what matters to scientists when they are engaged in doing their prescribed burns.” [7, p.67]

Verran’s idea of an infra-ontology as an inside connection between the cultures’ modes of being in the world, their shaping it accordingly for their tradition-borne and, if needs be, resilient communitarian requirements echoes the just-mentioned anthropological universalities. There are overlapping presumptions, she seems say, as to the ideal way of preparing the soil for crops. But her notion of infra-ontology does not presume an underlying common ground of perceiving oneself as being in the world. Instead, she insists on irreducible differences between the ideas of ontology – and the established burning techniques – of the Aborigines and the Western scientists. At the same time, she identifies a moment of recognition of the impulses and reasons (and reasonings) of the respective other party to prepare and practice the firings in their particular way: with numerous consultations of community members including rituals, with seemingly secondary considerations of a timely achievement or overall effect, etc.

Understanding such moments of recognition, which “emerge in particular situated episodes of institutional practices” [8], as something to be negotiated on the basis of a postcolonial (i.e., not primarily colonialist, nor neocolonialist tinged, but open-minded) and curious rather than suspicious

mindset, the idea of infra-ontologies may be helpful, too, for a contacting of culture-specific and technology-specific types of resilience(s).

III. NEGOTIATING THE POSTCOLONIAL MOMENT

Clearly enough, resilience is not an ‘institutional practice’ like the burning of soil or like navigating across the sea. An essential and sometimes in fact somewhat measurable, hence improvable or adaptable quality rather than a cultural technique or a program for outbalancing threats to the system, resilience inheres a difference of its own to the practices which STS are capable of identifying and differentiating. The difference is a categorical one, resulting from the transformation of the idea once it has traveled from engineering technology, relating it to hardware, to cultures and ethnic groups (thus humans, or wetware) in a postcolonial world. The issue of resilience may, however too, ‘emerge in particular situated episodes’ of encounters between trained scientists of North Global origin, successors of former colonizing agents and actors that they are, and locals from the formerly colonized Global South. Postcolonial moments (as Verran names these encounters) about resilience include the respective knowledge systems (epistemes) and predominant ontologies of technicalities and communities, and both are about how to robustly and rapidly, resourcefully and redundantly deal with hazards and risks.

In the case of marine contingencies, be these of anthropogenic origin such as climate change, El Niño etc. or not, and security-warranting maritime infrastructures, resilient responses may include the Polynesian seafarers as inhabitants of Bismarck Archipelago, a former German colonial outpost off the coast of New Guinea. Threatened by sea level rise now and exposed to violent imperial rule back around 1900, as historian Götz Aly has shown in his study of the acquisition of the Oceanic luf boat and its exhibition in German museums, the archipelago invites for urgent encounters of resiliencies and their postcolonial representatives [9].

IV. CONCLUSION

By way of a conclusion which explicitly avoids an all too early reduction of the cultural encounters to a mere ‘why not just let them discuss and find out about how acceptable the respective types of resilience are to the other’: Acceptability, in this case, hinges on more than persuasiveness of a foreign cultural technique (which stems from tradition and will thus be less of a standard for future risk and hazard management) or of an engineered technology (which under the sign of progress carries the promise to optimize). If the two parties confronted each other with a clean sheet, a more easy-going negotiation would seem possible, as numerous South-South cooperations have shown. North-South negotiating parties, however, tend to meet with a shared colonial past. It is irrevocably this past which formats the encounters, and it must be part of the arena where the postcolonial moment of two meeting cultures on the issue of resilience should take place. Anything else, and anything less would not live up to the standards of STS, nor

to those of Germany as a maritime infrastructure research Standort with an advanced postcolonial agenda.

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