An arm circumference that is too small, a waistline that is too wide, blood sugar levels that are too high - measurements are powerful tools for ending social negotiations and establishing undisputed matters of fact. This is mainly due to their grounding in pre-established standards that can serve as a clear basis of comparison, that are taken to be objective, verifiable and that can dispel doubt and guesswork. Yet, measurements do not necessarily end negotiations in straightforward ways. Recent scholarship has documented the paucity of numbers and how practices of quantification shape the social realities they purport to neutrally describe.

In the sway of the international triumph of an evidence-based paradigm in politics, the enlightenment idea that everything - bodies, basic needs, economic growth, temperatures, sea levels, etc. - can be made measurable, has been imbued with new life. Measurement has not only become a means to end cumbersome social negotiations: ‘taking measures’, in its more common sense as preparing and planning, has also become critical for political accountability. Thus, practices of gauging offer a heuristic entry point into the negotiation of social orders on various scales. Their location, at the junction of quantification, infrastucturing and everyday negotiation, allows raising new questions on the articulation of materiality, technology and valuation.

This workshop seeks to explore social lives of measures in a variety of historical and ethnographic contexts (health, climate science, the economy, etc.). We invite papers that focus on: the work of ‘taking measures’, of rendering dimensions of a messy world manageable and transposable; that draw out contradictions and settlements between the search for objective measures and their unreliability; explore lay methods of measurement or producing counter measures; or zoom into negotiation around micro-steps in measurement and commensuration (establishing standards, choosing proxies, etc.).

Vortragende Teil 1/ Speakers part 1:

Lisa Jenny Krieg (University of Bonn)

What is a gecko? The social life of taxonomic measurements

There are different approaches for herpetologists (zoologists of reptiles) to measure a gecko in order to find out to which species it belongs: counting scales, analyzing bone structures, or gene sequences. These different ways of "taking measures" move between inside and outside of the animal, and between scales. What sounds like a technical difference has implications: a small tissue sample can be enough for a genetic analysis, but a scale count can only be taken from a dead gecko. "Only in death do most animals pause long enough for our analytical minds to torture some truths out of them", Asma (2001: 27) says.

Based on field research with zoologists on a herpetological expedition in the Western Indian Ocean, I will take a closer look at different aspects of the social lives of taxonomic research on geckos. I will explore the nexus between the value of information, and the animal as crystallized, lively "information storage" on the one hand, and issues of care on the other hand: thus, individual geckos might have to die in order to perform the measurements necessary as a basis for nature conservation.
Charlotte Bruckermann (University of Oslo)
Measure for Measure? Negotiating carbon contradictions in China

From carbon markets to low carbon living, carbon (tan) measures pervade Chinese environmental politics. In this paper I ask: What negotiations does the measurement of carbon make possible? And what conflicts and contradictions become deferred, potentially into an infinite and incalculable future, as environmental degradation becomes subject to accounting? Carbon renders the messy, diffuse, and partial experience of atmospheric pollution and climate change quantifiable, manageable, and calculable. By accounting for carbon in everything from power plants to forestry reserves, and from plastic toys to bicycle rides, environmental degradation is rendered legible. Highly diverse processes, objects, and activities thereby become commensurate and exchangeable, often through market mechanisms and financial speculation. In this paper I turn to three field-sites where carbon is made, measured, and negotiated in China: the national carbon market for industrial polluters, a carbon footprint app for individual carbon accounting, and the rural carbon offset forestry project of a state-owned forestry farm. I will discuss what, how, and why these forms of carbon compare, and why not, as economic growth and environmental sustainability, capital accumulation and political legitimation, financial debt and green credit become negotiated through the measure of carbon.

Bryonny Goodwin-Hawkins (Aberystwyth University)
Making metrics, marking maps: NUTS2 as ethnographic object

In EU regional development policy, maps make metrics – and metrics make maps. Though in political discourse and public imaginations ‘the economy’ can seem as material and measurable as a heartbeat or temperature, metrics are contingent objects, negotiated into place. How does the EU take measures? How do the social lives of measures move through policies, rendered animate by their makers? In this paper, I turn my ethnographic attention to the Nomenclature des Unités Territoriales Statistiques (NUTS), the territorial classification system used to map the EU for quantifying purposes. Drawing from fieldwork in Brussels and Cymru Wales and from the anthropology of policy, I focus on NUTS2, a division smaller than a nation, but larger than a municipality. NUTS2 metrics matter because they are used to allocate EU funding to the ‘less developed’ regions that light up luridly on the statistical map; they are contingency made concrete. By treating NUTS2 as what Barbara Kirschenblatt-Gimblett calls an ethnographic object – though one made by Eurocrats, not ethnographers – I aim to attend to the processes of detachment and segmentation that make maps for metrics, metrics from maps.

Noah Walker-Crawford (University of Manchester)
Measuring danger in a changing climate

How do we measure environmental risk and attribute responsibility within the messy and complex process of global warming? In a precedent-setting climate justice claim, the Peruvian farmer Saúl Luciano Lliuya seeks to hold the German energy giant RWE financially accountable for its contribution to global warming and glacial lake hazard in the Andes. This paper examines how activists, scientists and government officials produce competing measurements about the lake’s rising water levels to assess potential flood hazard to downstream communities. These rival facts enter the courtroom as evidence to support legal responsibility narratives. Since international efforts to tackle global warming have seen little progress, legal claims for climate justice are moving to the forefront as a means to hold major polluters accountable. These cases often involve disputes about the reliability of facts that arise through measuring environmental processes across the
globe. In this ethnographic study of measurement practices at the lake in Peru and of legal argumentation in the courtroom, I show how climate litigation pushes the boundaries of acceptable evidence about measurable truths and polluters’ accountability for climate change impacts.

**Discussant: Joël Glasman** (University of Bayreuth)

Joël Glasman is Professor for African History at Bayreuth University. He is finishing a manuscript on "The Invention of Basic Needs. Quantification and Humanitarian Expertise". The book explores the notion of the "vital minimum" in humanitarian knowledge since 1945. Practices of measurements, he argues here, offer a heuristic entry point into the history of global governmentality. Results have also been published in WerkstattGeschichte, the Journal of Refugee Studies (2017), and Humanity (2018).

**Vortragende Teil 2/ Speakers part 2:***

**Sandra Bärnreuther** (University of Zürich)

**How the ‘social’ is rendered calculable: development impact bonds in India**

In 2018, the Educate Girls Development Impact Bond was declared a success. The world’s first development impact bond had been implemented in India between 2015 and 2018. It reportedly increased school enrollment and learning outcomes in government schools in Rajasthan while simultaneously delivering a financial return. As a rather novel mode of social service delivery, impact bonds combine impact investing and payment-by-result contracts. In policy circles, they are heralded as innovative funding mechanisms in light of decreasing state expenditure because of their focus on impact rather than input. Only when results meet agreed-upon criteria, proponents point out, do investors receive a return. This implies that impact bonds are subject to evaluation procedures.

In this presentation, I examine processes of evaluation used for the Educate Girls Development Impact Bond. Relying on an analysis of evaluative reports and observations at impact investing events, I describe the ways in which the impact of social service delivery is assessed. How are school enrollment and learning outcomes measured? What standards and accounting technologies are employed? What evidence created? And how is the ‘social’ rendered calculable and valuable in the process?

**Tyler Zoanni** (New York University)

**Counting on the people: the demographic dividend and the new social contract in Uganda**

The populations of many African countries are in the process of rapidly doubling. Drawing on economic ideas promoted by the World Bank and the UN, many of these countries are engaging this dramatic population growth as the basis of “demographic dividend” that will bootstrap them from low- to middle-income status. Using the case of Uganda, whose government claims it will become middle-income within two years, this paper examines some of the measuring practices by which African states are working to count present and future numbers of people in order to materialize the demographic dividend—that is, not only to count but to count on the people. At the same time, this paper shows that it is utterly implausible that Uganda will reach middle-income status by 2020, as its ruling party proclaimed last year. The paper argues that Uganda’s state efforts of counting (on) the people in order enact the demographic dividend are nothing less than a project of re-writing the social contract and redefining the terms of political legitimacy.
Mario Schmidt (Universität zu Köln)
Between nothing and a handful of fresh water sardines –
How Western Kenyans measure and are measured by monetary quantities
This paper revolves around a behavioral economic experiment on temporal discounting that aimed at measuring local levels of present bias, i.e. the tendency to overvalue utility – measured by monetary amounts – received in the present vis-à-vis utility received in the future. The experiment, conducted in collaboration with an economist in a Western Kenyan village, is scrutinized with a special focus on two translational (re)quantifications that took place during and after the experiment. Firstly, it focuses on how the experiment’s subjects implicitly translate monetary quantity amounts into local measuring units such as a handful of fresh water sardines. Secondly, it is interested in how the behavioral economist, equally implicitly, translates the monetary amounts chosen by the subjects into “purely” numerical amounts that are computable with one another by employing statistical methods and infrastructures such as Excel and R, finally arriving at local levels of present bias that can subsequently be compared with the level of present bias of other social groups that are, in a neo-evolutionistic manner, classified along parameters such as market integration, education and income level.

Asta Vonderau (Martin-Luther University Halle-Wittenberg)
Measuring the cloud
A few years ago, the building of a huge Facebook data centre in the Swedish city of Luleå prompted expectations among politicians as well as IT and business experts that this project of locating cloud infrastructure in Sweden would jumpstart a new industrial revolution and era of regional development. The size of Facebook’s server halls appeared to provide evidence for this expectation; it stored data of 800 millions social network users, consumed more energy than Sweden’s biggest steel mill, and stretched over a territory comparable to 12 football fields. However, the local impact of this new and elusive industry had still to be determined. How could an automated data centre possibly impact Sweden’s labour market? And could data as the new industry’s product indeed be compared to steel or other earlier industrial outputs? How could the presence of global IT companies become profitable for local communities? Based on an ethnographic study of Facebook’s data centre’s implementation in Sweden, my paper will follow the processes of measuring the cloud and its local impacts as they were negotiated among different stakeholders. The paper also reflects on my own attempts of „measuring” and grasping the cloud in anthropological terms.

Discussant: Ursula Rao (University of Leipzig)
Ursula Rao is Professor of Anthropology at the University of Leipzig in Germany. Her current research focuses on e-governance and biometric technology in India. She is co-editor (with M. Maguire and N. Zurawski) of Bodies as Evidence. Power, Knowledge, Security (Duke, 2018). Other publications are Tolerated Encroachment Resettlement policies and the negotiation of the licit/illicit divide in an Indian metropolis (Cultural Anthropology), Biometric Bodies, or how to make fingerprinting work in India (Body and Society).