

**PANEL 9**

**Maßstäbe in der Klimaregulierung, der Umweltindizierung und der Psychologie  
(freie Sektionsvorträge)**

/ Moderiert von Noyan Dinçkal (Siegen) und Janina Kehr (Universität Wien)

/ Samstag, 18.9.2021, 14.30–15.30 Uhr

/ Themenstrang „Skalen + Umwelt“ (Einwahllink)

/ Julian Schellong (TU Darmstadt)

**Scales and Standards in Emissions Trading and the Commodification of CO<sub>2</sub>, 1980s to 2000s**

/ Samstag, 18.9.2021, 14.30–15.30 Uhr

My paper investigates scales and standards in climate politics between the 1980s to 2000s. It is a historical study of techniques for quantifying substances, the environment, and economic activities. The Kyoto protocol from 1997 marked a change in environmental governance by implementing market-based mechanisms of regulation. Instead of setting strict limits on pollution, its central goal was to create financial incentives for reducing fossil fuel consumption through so-called “cap-and-trade markets”. In cap-and-trade-markets, corporations and governments are granted allowances to emit a limited amount of greenhouse gases. Whoever exceeds their individual budget of emissions needs to negotiate a price and buy allowances from other emitters. Cap-and-trade markets virtually rendered the atmosphere a scarce resource and greenhouse gases a tradable commodity. But in order to trade emissions rights, emitters needed techniques to count, price, and book greenhouse gas emissions. In the 1980s and 90s, scientists, government officials, and industry representatives drafted a set of standards and measures to put the abstract idea of cap-and-trade markets into practice. Examples are:

- Global Warming Potential (GWP): Measures the greenhouse gas effect, i.e. the degree of heat radiation a substance causes in the atmosphere
- ton carbon dioxide equivalent (tCO<sub>2</sub>-e): Volume unit that allows to compare the GWP of different greenhouse gases
- Assigned Amount Unit (AAU): Unit for emission allowances; one AAU grants permission to emit one tCO<sub>2</sub>-e

My paper studies the development and negotiations of these techniques for quantification in the commodification of CO<sub>2</sub>. These negotiations spanned geophysical observations, economic theory, and industry interests. This strained field is to be investigated through sources from the Intergovernmental Panel on Climate Change, national environmental ministries, think tanks like “Resources for the Future” (Washington, D.C.), and industry groups like “World Business Council for Sustainable Development” (Geneva). These scales and standards allowed to coordinate the vastly different rationalities and motifs in business strategy, accounting, international diplomacy, and climate science. They can be understood as “boundary objects” (Star and Griesemer). The notion of boundary objects allows to analyze how the commodification of CO<sub>2</sub> transformed the relationship between humans and the environment.

Julian Schellong is currently working on a PhD thesis in history at Technische Universität Darmstadt on climate governance in the twentieth century. He studied History and Philosophy of Knowledge at ETH Zürich and graduated with a thesis on automation and digitization in the Swiss weather observation network.

/ Pierangelo Blandino (Law, Technology and Design Thinking Research Group/University of Lapland)

**Standards, Norms, and Contracts. A Possible Balance**

/ Samstag, 18.9.2021, 14.30–15.30 Uhr

In the essay, I would like to analyse the role of the contract in the definition of limit values measures as for environmental pollution. More precisely, it would be interesting to take into consideration the multi-faceted features whereof Directors and Officers in surance liability (hereinafter D&O) by comparison with the notions of the norm, and standards. The paper's thrust would regard the individuation of a new approach in order to accommodate the norms' amorphous trait, thus making them difficult to define (Bush, 2013). By contrast, the standards turn out to be "a prerequisite for interpreting the practices" (Hershovitz, 2007), because they tend to be independent from the same practices. Therefore, the contractual approach, and especially that of D&O (as per environmental pollution) can, also at an epistemic level, fill these gaps. In this sense, a quick overview on the flexibility of standard producing different outcomes in similar cases (Twigg-Flesner, 2003), and the subsequent choice for organisations to apply their own standards, and procedures (Williams et al., 2011), can be the starting point for these reflections. Assuming that transacting risks are more manageable thanks to standards because they are uniform, it is possible to individuate a point of contact among these three approaches. In this regard, the notion of the contract as a source of the law (Blandino, 2020), can be more performative than the one of norms, because it constitutes the outcome of party's negotiations, subsequently transcending abstractness of norms.

Pierangelo Blandino is a doctoral candidate at ULap/Law. In his research he integrates the past legal experiences, and philosophical frames of mind, into the realm of the Fourth Revolution challenges. Particular focus is posed on contractual law developments and automated data gathering practises, with their subsequent implications on privacy, and expression of the will. More precisely, he aims at finding a common denominator among these subjects in order to individuate new modes for interpreting these changes. Legal design is a central approach in his thesis. His previous studies at Turin Law School, and Turin State Archive are particularly helpful for approaching this research via a cross-disciplinary method towards legal, and societal issues.

/ Laurens Schlicht (Saarbrücken)

**Suggestibility. William Stern's Experiments on Children's Testimonies in Bolestawiec/Bunzlau in 1902 and the Development of Scales of Suggestibility**

/ Samstag, 18.9.2021, 14.30–15.30 Uhr

Since the establishment of psychology as an academic discipline, schools and especially elementary schools (Volksschule) became a privileged place for conducting psychological experiments with children. From 1900 onwards, both psychologists and teachers used the classroom as an experimental site for developing different scales, some for intellectual aspects like intelligence, others for moral entities like conscientiousness or sincerity. For teachers and psychologists alike, conducting scientific experiments in schoolclasses was the result of a precarious alliance of teacher's associations, psychological institutes, and others. Psychologists gained access to a group of test subjects that would otherwise be very difficult to assemble. Teachers gained symbolic power but were at the same time also threatened by the new pedagogical persona of the psychologist.

In the history of science, we have not yet sufficiently understood the extent to which the construction of psychological knowledge depended on informal and formal pedagogical techniques that had long been practiced. In my paper I want to examine one specific case. I would like to demonstrate how the study of children's suggestibility has changed since Alfred Binet's research in France, and Clara and William Stern's surveys of elementary schools in Bolesławiec in 1902. The Sterns were among the most cited authorities in early developmental psychology. William Stern's research in elementary schools can offer insight in the negotiation of teacher's knowledges and new psychological approaches to the mind of children. Here, Bolesławiec is an interesting place because the city was known as the "city of schools" and a center of teacher training and new approaches.

I would like to show how the Sterns took up already existing teacher's knowledge, transformed and operationalized it for psychological research, and finally developed quantified scales to make suggestibility measurable. This practical knowledge was reflected in the institution of so-called "Anschauungsunterricht" (visual instruction) at elementary school, which was supposed to teach students to conceptually organize their perceptions and to be able to name them in language. For this purpose, illustration boards and illustration books were used, which since the beginning of the 19th century provided the prerequisite for offering students a representation of the world around them within the framework of school instruction. William Stern used these books for his research in elementary schools and Clara Stern for her diary studies with her own children. I would like to show how Stern formalized this professionalized but predominantly informal knowledge and how he pre-structured the images for the production of scales by defining a countable set of potential perceptual elements.

In the field of practice and research of elementary education and early developmental psychology, as I will show on the basis of Stern's research and on the basis of reactions of teachers' associations, this transformation of pre-existing practical knowledge served to consolidate professional spheres for psychologists and as an argument for the institutionalization of psychologically informed courses of study (e. g. psychology, pedagogy, teacher training).

Laurens Schlicht ist seit dem Wintersemester 2019 wissenschaftlicher Mitarbeiter in professoraler Vertretung an der Professur für Romanische Kulturwissenschaft und Interkulturelle Kommunikation an der Universität des Saarlandes. Seine wissenschaftliche Schwerpunkte liegen in der Wissens- und Wissenschaftsgeschichte der Humanwissenschaften (sciences humaines) mit einem Schwerpunkt auf Frankreich und Deutschland (18.-20. Jhd.), der historischen Epistemologie, politischen Dimensionen von Wissenskulturen, der Aufklärungsforschung und den Humanwissenschaften in Weimarer Republik und NS mit Schwerpunkt auf Psychologie.