TAGUNGSBERICHTE

Crossing Boundaries: Medicine, Innovations and Society

Report on the International Conference "Social Sciences and Medical Innovations"

Tomsk, Russian Federation, May 15–17, 2014

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Crossing boundaries is a challenge of our time. Representatives from a diverse range of disciplines and fields came together at the conference "Social Sciences and Medical Innovations"[1] in order to discuss the dynamics of innovation in biomedicine and public health, as well as relations between such innovations and society. The conference was jointly organised by the Centre for Policy Analysis and Studies of Technologies (Tomsk State University, Russian Federation) and the Department of Health, Ethics and Society (Maastricht University, The Netherlands). In view of the fact that social sciences play a crucial role in understanding the processes and challenges of medical innovations, participants discussed the opportunities created by engagement between social and biomedical scientists, health professionals and policy makers. This highly interdisciplinary event brought together participants predominantly based in European and post-Soviet states, establishing novel connections between scholars involved in the field of medical innovations and engaged with different traditions of thought and disciplinary languages. Correspondingly, the questions raised in the course of the conference were diverse: How innovations in medicine and health are actually developed and how the relationships between innovations and everyday practices are mediated? What concepts and theoretical approaches are fruitful for understanding innovative initiatives in biomedicine and their meanings and consequences for the various actors involved? What concepts and approaches are useful for envisioning and reflecting on the future directions of innovations? How are medical innovation agendas shaped and what kind of governance processes are and should be involved? How do rapid scientific advances and new technologies address issues of public participation and accountability?

1 Innovation Governance

The conference was opened with an introductory keynote lecture by Klasien Horstman (Maastricht University). She provided a narrative of how the social has been gradually divorced from biomedical knowledge production and innovation in the course of the scientification of medicine and showed the costs of such separation. Moreover, she pointed to the difficulties in bridging the gap between laboratories and medical practice and in understanding the effectiveness of innovations in everyday life, the lack of attention to what it means to live with biomedical innovations, and the limited insights into issues of public legitimation of expertise. She called for more interaction and dialogue between social sciences and medical innovations in order to reflect on socio-technical trajectories and to continuously learn about their quality, consequences and anticipations.

Agnes Meershoek (Maastricht University) began the session "Innovation Governance" by reflecting on the limitations of the view that development and implementation of (medical) innovations are two separate phases of a knowledge-driven process. Noting that it is nearly impossible to control the implementation and use of new technologies, the pervasive influence of societal dynamics on knowledge production, and the decreasing public trust in science, she stressed the need to democratise innovation governance. Further, Valentina Poliakova (National Research University Higher School of Economics, Moscow) talked about the ambiguities and conflicts surrounding new biomedical technologies, e.g. the boundaries between human and non-human and the divergence between health and social risks, and examined the example of social legitimation of stem cell technologies in Russia. Pavel Vasilyev (Max Planck Institute for Human De-

velopment, Berlin) delved into the early history of Soviet health care and investigated the evolution of government policy towards private health services provision. Olga Zvonareva and Lloyd Akrong (Maastricht University) discussed the development of regulations for governing biomedical knowledge production and showed how globalised research ethics guidelines and bioethical discourses are being re-interpreted and operationalised in particular local settings, arguing for more responsive and empirically informed governance tools.

2 Co-production of Science and Society

In the second keynote lecture, Jessica Mesman (Maastricht University) talked about the "interventionist turn" in Science and Technology Studies (STS) and her own efforts to make a difference in clinical practices related to patient safety. Elaborating on the issue, she focused on the positive understandings of patient safety, on latent resources and strengths allowing for adequate levels of safety within complex real-life situations, which can be considered as exnovation. She stressed that qualitative, anthropological research is an important means of intervention and provided video reflexivity as an example of a method extensively applied in her own work.

The subsequent conference session "Co-production of Science and Society" explored the processes and multiple perspectives involved in the generation of new health-related knowledge. The issue of credibility was brought in by Bart Penders and Melanie Leenen (Maastricht University), who analysed how the credibility of alternative dietary advice, i.e. the food hourglass, was engineered by its author through combining a critique of the dominant scientific paradigm with selective enlisting of that paradigm. The topic of credibility was also taken up by Evgeny Kulikov (Academy of Evidence-Based Medicine, Russia), who discussed the struggles surrounding the introduction of the influential paradigm of evidence-based medicine in Russian settings. Denis Sivkov (Russian Presidential Academy of National Economy and Public Administration) reflected on divergent ontologies of the immune system. The idea of multiplicity of ontologies and its implications was further elaborated on by Victor Vakhshtayn (Moscow School of Social and Economic Sciences), exploring (re) conceptualisations of trauma. Further, Maria Polikashina (National Research University Higher School of Economics, Moscow) discussed medical and social notions of the human body, and Andrey Kuznetsov (National Research Tomsk State University; Volgograd State University), in his presentation, suggested that the clinic could be a strategic site to look for "the social".

3 Gender and Cultures in Medical Innovations

The session on "Innovations, Medicine and Gender" was opened by Anna Temkina (European University at St. Petersburg), who focused on the issues of access to newly reformed, highly technological care for pregnant women and women giving birth in Russia. She described various ways of accessing healthcare and developing trust between patients and medical professionals and, importantly, showed how the idea of "access" in practice was not at all straightforward; rather it is organised through continuous negotiations in the context of multiple uncertainties. Ekaterina Borozdina (European University at St. Petersburg) explored how the midwifery community in Russia was working to redefine birth assistance practices and institutionalise these innovations, taking account of the influences of Soviet experiences, current liberal reforms in the healthcare system, and the interventions of global actors. Using the example of anesthesia application, Olga Melnikova (National Research Tomsk State University) focused the audience's attention on how technologies in medical practices were used in multiple and creative ways, not limited to those specified by medical standards. Valentina Shipovskaya (University of Zurich) talked about gender differences in healthy aging and ways to measure them; Daria Schechvatova and Olga Kurushina (Volgograd State Medical University) focused on the role of gender and corresponding perceptions and expectations in doctor-patient relationships; and Polina Vlasenko (Centre for Society Research, Ukraine) critically analysed the discourses of the state, medi-

cal professionals, and patients regarding assisted reproductive technologies (ART) and discussed biopolitical and governmentality techniques for gender normalisation in Ukraine.

During the session "Cultures in Medicine", Nina Bagdasarova (American University of Central Asia, Kyrgyzstan) and Karen Petrosyan (University of Massachusetts) explained that the use of "soft" innovations like diagnostic manuals in medicine was embedded in societal perceptions and conditions, and gave an example of defining depression in post-soviet Kyrgyzstan. Anna Leontyeva (National Research University, Higher School of Economics, Moscow) described the strategies used by people from stigmatised groups, including injection drug users, to access medical and social services, stressing the importance of contextual socio-political circumstances in shaping these strategies. Svetlana Abrosimova (Ural Federal University) talked about how advances in medicine and biotechnology were interpreted by various religious groups and the implications this held for biomedical innovations.

4 Innovation Design and Implementation

Elena Simakova (University of Exeter) opened the concluding conference session "Innovation Design and Implementation" with a talk on responsible research and innovation, scrutinising the notion of responsibility itself and arguing in favour of opening up the relationships between technologies and responsibility for public deliberation. She drew attention to the need to further develop the field of the sociology of expectations in order to critically analyse promises and visions of (biomedical) innovations and avoid taking these for granted. Angelos Balatsas-Lekkas (Technical University of Denmark) discussed how medical professionals, engineers, psychologists, and others worked together in designing medical simulation sessions and negotiated their understandings of patient safety, focusing on transformative aspects embedded in the design of simulation scenarios and their implications for medical practices. Ivan Tchalakov (National Research Tomsk State University; University of Plovdiv) suggested experimenting with the limits of participants' imagination and reflected on health needs and productive solutions for the forthcoming human colonisation of space. Tetiana Stepurko (National University of Kyiv-Mohyla Academy) and other colleagues from the National University of Kyiv-Mohyla Academy and Maastricht University investigated practices of informal patient payments in Lithuania, Poland and Ukraine, their relation to specificities of the economic and sociocultural environments, and their implications for future healthcare reforms. The session was closed with a presentation by a team from Perm National Research Polytechnic University headed by Elena Seredkina, who reported on practices and challenges of designing and implementing a transdisciplinary project in the field of metabolism and diabetes.

5 Crossing Boundaries: Opportunities and Challenges for Collaboration and Dialogue

The issue of engagement of social scientists with biomedical scientists, entrepreneurs, policy makers, and other actors involved in health and medical innovations, and the value and risks associated with such engagement became one of the main axes of the conference. During the "Biomedical Innovations in Contemporary Russia and the World" round table, which brought together representatives from the Technology Platform "Medicine of the Future"[2], Tomsk Oblast Center for Cluster Development[3], industry and academia, it was reiterated that the involvement of social sciences was crucial for attuning innovations to the needs and concerns of diverse members of society in various contexts. In the final conference discussion, it was acknowledged that relevant and responsible medical innovations require input and direct involvement of many. Participants reflected on how to organise this multitude of voices, with all its asymmetries of power, diverse disciplinary cultures and governance traditions, and discussed possible roles for social scientists, including that of the analyst, advocate, assistant, critic, referee, and commentator. It was shown that there are multiple reasons for social scientists to actively and purposefully "intervene" in medical innovations and various ways to do so.

Notes

1) http://en.past-centre.ru/2014/05/conference-social-sciences-and-medical-innovations/
2) http://tp-medfuture.ru/en
3) http://www.innoclusters.ru/

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Wann ist genug genug? Wie Wissenschaftler, Regulatoren und Innovatoren mit Wissenslücken umgehen

Bericht über den Workshop „Wissenschaftliche Grundlagen zur Regulation von Nanomaterialien“

Dübendorf, Schweiz, 20.–21. Januar 2014

von Jutta Jahnel, ITAS

Mittlerweile sind Nanoprodukte in jedem Supermarkt zu finden. Sie werden z. B. in Sonnencremes, Reinigungsmitteln und Wundpflastern eingesetzt. Gleichzeitig besteht aber noch kein Konsens über die Bewertung der zahlreichen toxikologischen Studien, die mit immer aufwändigeren Methoden die Risiken von Nanopartikeln untersuchen. Analysemethoden zur Überwachung und Kontrolle von Kennzeichnungsvorschriften stehen zwar prinzipiell zur Verfügung, die Verfahren sind jedoch sehr aufwändig, die Instrumente sehr teuer und die Messmethoden nicht validiert. In dieser Situation stellt sich die Frage nach dem verantwortungsvollen Umgang mit derartigen Unsicherheiten, nach dem möglichen Risiko für Verbraucher, aber auch nach den Voraussetzungen für Innovationsfreundlichkeit und Vertrauen in die Nutzung derartiger Technologien.

Der Workshop brachte insgesamt 30 Stakeholder aus Wissenschaft, Industrie, Behörden und Beratung – größtenteils aus den Bereichen Umwelt, Chemikalienbewertung, Analytik und Wasserversorgung – für zwei spannende Tage an einen Tisch. Er wurde vom Oekotoxzentrum der Eawag in Dübendorf organisiert. Die Teilnehmer hörten informationsreiche Vorträge, um einen gemeinsamen Wissensstand über aktuelle rechtliche Regelungen aufzubauen. Danach wurden wissenschaftliche Grundlagen aus der Human-, Ökotoxikologie und der Analytik vertieft und offene Fragen thematisiert. Die aktive Mitarbeit der Teilnehmer erfolgte in kleineren Diskussionsgruppen und konzentrierte sich auf gemeinsame Strategien für einen verantwortlichen Umgang mit Nanomaterialien.

1 Regulatorische Standortbestimmung

Andrej Kobe von der Europäischen Kommission gab einen Überblick über die regulatorische Situation von Nanomaterialien in der EU. In den letzten Jahren wurden auf europäischer Ebene zahlreiche Anpassungen in Sektor spezifischen Verordnungen für verbrauchernahe Nanoprodukte wie Kosmetika oder Lebensmittel zu Definitionen und Kennzeichnungen vorgenommen. Aber auch an Nanomaterialien, die als Rohstoffe in Nanoprodukten eingesetzt werden, wurden zusätzliche Vorgaben an die Hersteller bezüglich der Registrierung und Informationsweitergabe festgelegt.

Christoph Studer (Bundesamt für Gesundheit, Schweiz) stellte die spezifischen nationalen Vorgaben in der Schweiz vor, wobei er insbesondere die widersprüchliche Situation im Umgang mit Nanomaterialien herausarbeitete: Nach Einschätzung der OECD sei die Anwendung bestehender Testmethoden zur Risikoabschätzung von Nanomaterialien prinzipiell geeignet. In speziellen Fällen wäre zwar eine Anpassung der Richtlinien vorzunehmen, neue Verfahren müssten jedoch nicht entwickelt werden. Trotzdem wies er auf eine Vielzahl offener Fragen hin. Studer präsentierte eine Liste mit insgesamt vierzehn konkreten regulatorischen Fragen, u. a. zur Messmethodik, physikalisch-chemischen Eigenschaften, Langzeiteffekten, Gruppenbildung, Wirkmechanismen, Exposition, bis hin zur Risikobewertung und zum Risikomanagement. Die Einschätzung der OECD wurde im Anschluss an diese Präsentation von den meisten Teilnehmern für ihren Kontext als vertrauensbildend und beruhigend bewertet. Insbesondere Hersteller und Innovatoren erwarten dadurch eine gewisse Planungssicherheit für zukünftige Innovationen.