## The "Two Cultures" avant la lettre: How the Sciences and the Humanities grew apart

Veranstalter: Abteilung für Wissenschaftsgeschichte, Ludwig-Maximilians-Universität München; Münchner Forschungszentrum Fundamente der Moderne, Ludwig-Maximilians-Universität München

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Human beings tend to perceive certain societal conditions as having an older tradition than they often actually do have. For today's scholars and scientists, one of these conditions is the assumption that a wide gulf divides the humanities and the natural sciences. The term "Two Cultures", coined by C.P. Snow in his 1959 Rede Lecture in Cambridge, is still so popular today that it is often not questioned at all. Snow criticized a "gulf of mutual incomprehension" between the humanities and the sciences. However, if one historicizes this condition, it shows that the divide between the humanities and the sciences is in fact younger than one might expect. It was not until the 19th century that scholars developed a sense of belonging either to the humanities or the sciences. But even then, the division was not as clear as we tend to assume today. The workshop, organized by Fabian Krämer (Department for the History of Science at Ludwig-Maximilians-University Munich) in the Munich Research Center Foundations of Modernity (coordinated by Heiko Schmidt), was dedicated to the history of the "Two Cultures". How did they come about? And to what extent were and are they really two? The workshop brought to light new and constructive ways of thinking about these questions.

The workshop had three panels. The first panel looked at a time before the manifestation of the "Two Cultures". In his opening paper, FABIAN KRÄMER (Munich) talked about the diverse ways of reading and observing in early modern natural history. Based on his prizewinning dissertation, Krämer questioned the narrative of a straight forward shift from book learning to empiricism in early modern Europe. With rich source material from early modern works on the monstrous, Krämer convincingly showed that one can rather speak of different empiricisms and scholarly ways of reading instead of a shift from book learning to empiricism. In early modern European natural history, reading and observation were closely related to one another instead of being epistemologically separated. As we usually associate observation with the sciences and reading with the humanities, Krämer's results are a good basis for thinking productively about the history of the "Two Cultures" divide.

Trying to bring together the philosophy of science and the history of the humanities, FLORIS SOLLEVELD (Nijmegen) asked whether there was anything like Kuhnian "normal science" in the early modern humanities. As Solleveld argued, early modern scholarship was not so much organized by discipline, but by genre. Focusing on different scholarly genres in the 18th century he posed the question if there were commonly accepted ways of "doing knowledge" or "puzzle-solving". The answer, however, remained ambiguous. If one looks, for example, at 18th century debates about the origin of language, it is not so much the establishment of a "normal science" among the scholars who took part in the debates. Rather than a commonly accepted way of "puzzle-solving", the scholars found a new way of reasoning in their field of study.

The workshop's keynote lecture was held by ANTHONY GRAFTON (Princeton). Following the title of his talk, Grafton tackled a big question: "Science and Philology. When the Ways Parted". In an elegant lecture Grafton talked about two different early modern scholars: the English physician John Caius and the Swiss naturalist Conrad Gessner. Next to their scientific interests, both men also pursued philology. Through an analysis of their works as well as their correspondence, Grafton showed how Caius and Gessner collaborated with each other, yet were diverging in habitus and practice. In 16th century Europe, Grafton argued, there were distinctive cultures of philology and natural science.

However, these cultures were at times inhabited by the same persons as one can see with Caius and Gessner. Grafton concluded that looking at the "Two Cultures" also as constituted by the choices made by individuals would make a better model to think about the divide of these areas of research.

The second panel dealt with the modern bifurcation of academic disciplines and its limits. The sociologist JULIAN HAMANN (Bonn) convincingly applied the sociological concept of boundary work to historical sources. He focused not on when, but on how the modern "Geisteswissenschaften" emerged as a distinct academic culture in 19th century Germany. Boundary work approaches look at the relation between entities and their boundaries. The creation of symbolic boundaries is seen as a precondition of the formation of social entities. Looking at programmatic documents by humanists as well as by natural scientists Hamann argued that the production of symbolic boundaries led to the formation of the "Geisteswissenschaften" as a social entity. By using the sociological boundary work approach he systematically showed the importance of temporality, situatedness, and the relational character during the demarcating emergence of the "Geisteswissenschaften".

In his paper, RENS BOD (Amsterdam) asked the big question if there have been two cultures after all. While the humanities and the sciences were institutionalized as distinct academic cultures in the 19th and 20th centuries, Bod focused on interactions outside the level of institutionalization. In particular, he concentrated on interactions between linguistics and information sciences, between philology and biology and more generally between history and the natural sciences. The examples he presented in this general outline were wide ranging: from the interactions between the study of grammar and computer programming languages to the parallels of historical source criticism and critically reading sources in medicine or forensic science. Looking at these kinds of interactions Bod argued that the humanities and the sciences never really became epistemologically separated. Before and after the institutionalization of the "Two Cultures", virtues such as 'formalization' and 'precision' were and are present in both academic cultures and even migrated back and forth.

The third and last panel then dealt with the time of C.P. Snow's lecture about the "Two Cultures" and its aftermath. GUY OR-TOLANO (New York) argued for a deeper understanding of Snow's 1959 Rede Lecture through a contextualist intellectual history. As Ortolano stated, the division of academia into "Two Cultures" is not the predominant aspect of Snow's speech itself. Ortolano summarized this conclusion in the claim that we, today, care more about the "Two Cultures" than C.P. Snow himself did. What was Snow then concerned with? The 1959 Rede Lecture, with its paragraphs about industrialization and the export of science and technology to the Third World, is best understood as a social vision of optimistic liberalism. After 1960, however, that position shifted more and more away from being associated with liberalism and came to be seen as a staunch conservative viewpoint.

MICHAEL HAGNER (Zurich) in his paper set out to bring together the history of science and book history. Focusing on the German pocket book series "rowohlts deutsche enzyklopädie" (rde) and its editor, Ernesto Grassi, Hagner discussed the place of science and the humanities within the West German society after 1945. Hagner showed how well these little books sold in postwar Germany. Thematically ranging from zoology to history, rde can not be assigned to either one of the two cultures. Grassi was interested in showing the state of the art in different areas of research. With its enormous success rde helped forming a widespread reputation for both the humanities and the sciences. Grassi intended to overcome increasing trends of specialization of academic knowledge by bringing together these different branches. Hagner argued that this has to be seen in relation to questions of nationalism and Germany's place in the realm of Wissenschaft.

With her thought provoking commentary LORRAINE DASTON (Berlin) opened up the final discussion. Daston welcomed the fact that current dogmas of the history of science, such as the focus on locality, were challenged and undermined by the papers presented at the workshop. The papers showed that the history of the bifurcation of academic knowledge, especially when focusing on practices or values, can transcend the local contingencies of the history of science. Thus, Daston summarized that in discussing the "Two Cultures" we have to ask ourselves what particular kind of knowledge we are talking about. There is a difference when talking about shared practices of different areas of research or when talking about the distinct disciplines themselves. The context is also important: are we talking about all of Europe? Or about certain schools and universities? What time are we talking about? What counts as the right context to talk about the "...Two Cultures"?

With Daston emphasizing the importance of these questions one can summarize that the papers presented at the workshop, just as the well-structured commentaries (by PAOLA MOLINO, DANA VON SUFFRIN and CHRISTIAN JOAS, all three from Munich), dedicated themselves, in one way or another, to these questions. A workshop about the history of the "Two Cultures" naturally has to be eclectic to a certain degree. A focus on just one epoch as well as on one or two disciplines will most likely not undermine the narrative that has people thinking about the division of the humanities and the sciences as natural and pre-existing. This makes the topic a very complex one.

However, with the papers presented at this explanatory workshop, thematically ranging from early modern natural history to postwar publishing strategies, the workshop has provided a fertile ground for thinking deeper about the "Two Cultures", without unduly reducing the topic's complexity. Following Anthony Grafton's thoughts on new or better ways of thinking about the "Two Cultures", one can conclude that the workshop's main intellectual gain was that the participants presented fresh and creative ways of investigating the topic – whether it be focusing on practices instead of disciplines, applying a certain sociological approach or closely exploring the context of Snow's lecture. Thinking about the "Two Cultures" has been a complex issue since C.P. Snow's speech of 1959 and it will most likely stay just as complex. But the complexity of history is one of the reasons why questioning old narratives is such an important task. In discussing and questioning the narrative of the "Two Cultures" the workshop has thought-provokingly contributed to this task.

## **Conference overview:**

Fabian Krämer (LMU Munich): Welcome and Introduction

Panel 1: Before the "Two Cultures"

Fabian Krämer (LMU Munich): Ways of Reading and Observing in Early Modern Natural History

Floris Solleveld (Radboud-University Niimegen):

A Science of Letters? Forms of "Normal Science" in the 18th-century Humanities

Paola Molino (LMU Munich): Commentary and Discussion

Keynote Lecture (in cooperation with the Munich History Lecture)

Anthony Grafton (Princeton University): Science and Philology: When the Way Parted

Panel 2: The Modern Bifurcation of Academic Disciplines and its Limits

Julian Hamann (Forum Internationale Wissenschaft, University of Bonn):

The Two Cultures and Symbolic Boundaries: How Did the Modern *"Geisteswissenschaften"* Emerge in the 19th Century?

Rens Bod (University of Amsterdam): The Flow of Knowledge Before and After the Great Divide

Dana von Suffrin (LMU Munich): Commentary and Discussion

Panel 3: C.P. Snow and After

Guy Ortolano (New York University): C.P. Snow, *The Two Cultures*, and Contextualist Intellectual History

Michael Hagner (ETH Zurich): The Two Cultures of *Rowohlts Deutsche Enzyklopädie* 

Christian Joas (LMU Munich): Commentary and Discussion

## Final Discussion:

Lorraine Daston (Max Planck Institute for the History of Science, Berlin): Commentary and Final Discussion

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