

*Effect that the second and third volumes include another paper I wrote on the Matthew Effect and its diffusion through the scholarly literature and public press.*

*It gives me enormous satisfaction and happiness to learn that you and your fellow sociologists find my husband's work stimulating and worthy of careful study. I know he would have been so pleased that his Russian colleagues remain interested in his work.*

*Sincerely*

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## **Building research agendas in the 1970s: Reflections on Robert K. Merton**

Robert K. Merton was very interested in the way his ideas affected the sociology of science as it was developing within Russia in the 1970s. He was also interested in how those of us outside Russia could build upon his concepts in our scholarship on Russian science and scientists. He discussed this with me on several occasions, and I learned a great deal from him. My own graduate training at Indiana University (1963–1968) was in political science with a concentration on political theory, comparative politics, Russian area studies, and a minor in history. I had a strong interest in science studies going back to my high school days in the 1950s. I wanted to incorporate this interest into my dissertation research and was fortunate to be in the first course taught at Indiana by Loren R. Graham, who had recently completed his doctorate at Columbia University. Graham was an inspirational teacher; his lectures encouraged me to combine research on science with research on Russian history, while still keeping political science as my primary discipline. The challenge was to find an appropriate analytical framework.

Since I was strongly influenced by the behavioralism movement that was redefining the field of comparative politics at the time, I wanted to study Russian scientists through the same concepts and frameworks that were used to study scientists in the United States and other countries. Scholarship in the sociology of science, under the leadership of Merton (Merton, 1968, 1973), provided a starting point for me to look at roles and social structure in Russian science, moving on from there to career patterns and Russian science

communities (Lubrano, 1977). I remember, during one of my conversations with him in New York, Merton introduced me to Bernard Barber, and the three of us discussed the authoritarian/democratic contexts of science, the prospects and limits of comparative analysis, and the need for a political sociology of science. This was in the mid-1970s when I was exploring the Russian field of *naukovedenie*. Merton and Barber were very interested in my analysis of that literature and encouraged me to make more of this work known in the United States, which I did (Lubrano, 1976).

The 1970s was an exciting time for science studies. As a founding member of the Society for Social Studies of Science (4S) in 1975, I looked forward to working with colleagues from a variety of disciplines who shared a passion for the study of science and scientists. Robert Merton, the first 4S President, was an effective leader in this endeavor, but the dominant role of sociologists, and more specifically, the research traditions of functional sociology were soon subjected to re-examination and contestation. Intellectual paradigms were shifting in ways that affected the intra-disciplinary dialogues as well as inter-disciplinary ones. Sociologists, historians, and political scientists (and to a lesser extent, philosophers, economists, and anthropologists) debated how to integrate what appeared to be irreconcilable differences in their intellectual agendas. I remember listening to the impassioned debates at Cornell University, site of the first 4S annual meeting in 1976, where scholars with deeply divergent views spoke past one another in a sea of conflicting assumptions, vocabularies, and objectives. I could not resist commenting humorously during one of the more volatile sessions that “the air is rife with cognitive dissonance.” I noted more seriously that constructive dialogue could begin only when these deep ontological differences were addressed systematically.

Over the next few years the social studies of science remained eclectic and multi-dimensional, but there was a gradual cross-disciplinary discourse that brought new perspectives into view. Richard Whitley (Whitley, 1974) had already noted, for example, that sociologists of science were moving away from their preoccupation with institutional norms and social structures and were reorienting the field toward an emphasis on the contextual development of scientific knowledge. In summarizing the proceedings of a 1972 conference of the International Sociological Association’s Research Committee on the Sociology of Science, Whitley and his colleagues declared that Robert Merton’s classical model of science was being replaced by Thomas Kuhn’s approach to the social history of scientific ideas (Kuhn, 1962). Kuhn’s emphasis on the interaction between science communities and cognitive structures helped to bridge the gap between two fields of study, namely the sociology of scientists’ behavior and the history of scientific knowledge. As is well known, this was a major shift in the definition and focus of the field, accompanied by changes in research techniques and modes of analysis.

This coincided with long-standing debates over externalist and cognitivist approaches to science studies. Since Merton was viewed primarily as an externalist, changes in the contextual variables used to explain scientific development potentially challenged his interpretations of salient social structures. Moreover, shifts in the content of what was being explained, from the professional behavior of scientists to their ideas and theories, further challenged Merton’s analytical framework. The study of science and scientists became quite fragmented, not only in the definition of research agendas, but also in the epistemological and ontological foundations of conflicting methodologies and techniques of analysis. While Kuhn’s work facilitated projects that could cut across disciplinary and epistemological barriers, there was no easy

consensus on how to proceed. All of these issues found their way into the panels and corridors of 4S meetings throughout the decade.

At the beginning of the 1970s, Joseph Ben-David (Ben-David, 1971) had observed that the earlier work of Merton, which was more comparative and historical at the macro-level, was being overshadowed in the United States by atheoretical and ahistorical analyses of research networks. This was due, in part, to the increasing popularity of sociometrics and other quantitative techniques in the social sciences. But a very different challenge came from overseas. In contrast to their American colleagues, British scholars such as S. Barry Barnes and David Bloor drew upon the philosophy of science and the sociology of knowledge to provoke questions about the meaning of Merton's universal model and Kuhn's relativism (Barnes, 1974; Bloor, 1976). I remember long conversations about Mertonian sociology and the strong programme with my friend David Edge at the annual 4S meetings. A book that influenced me a great deal during this period was Michael Mulkey's *Science and the Sociology of Knowledge* (1979). Its clear articulation of the social contingency of all knowledge, including scientific theories, and its analysis of Merton's positivist view of science in relation to the ideas of Karl Mannheim and Kuhn opened new research agendas for scholars in the field. Moreover, I found Mulkey's argument to be consistent with Graham's earlier work on Russian science (Graham, 1972), which had demonstrated the epistemological connections between one's world view and the content of knowledge creation.

It was in the context of these developments that I conducted field research in Russia, starting in 1974. On my first trip I met Semen Romanovich Mikulinskii and Samuil Aronovich Kugel, who subsequently hosted me at the Institute for the History of Science and Technology in Moscow and Leningrad. That was the beginning of a fruitful collaboration that lasted into the early 1990s. The ideas of Merton provided a common language in some respects, but I think the contextual differences in research traditions made for interesting contrasts. I learned to appreciate the perspectives of my Russian colleagues through these first-hand experiences. Meanwhile, political science in the U.S. was characterized in the 1970s by contestations over the validity of behavioralism as a research paradigm. This was reflected in my more normative and interpretive writings on US-USSR science policies, which continued into the 1980s (Lubrano, 1985). While the influence of Merton could still be seen in my attention to the social structure of science communities (Lubrano, 1993), that has since been eclipsed by my current focus on issues of governmentality (Lubrano, 2011).

Looking back to that period of academic discourse in the 1970s and to my own work on Russian science, I would have to say that Robert Merton gave me a theoretical starting point in the social sciences — a foundation from which to examine science as a social activity. My studies with Loren Graham and my work with colleagues in the 4S broadened that foundation. Ultimately, my colleagues in Russia made field research both empirically meaningful and thoroughly enjoyable.

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## **Социология науки — новые вызовы**

В статье рассматриваются возможности социологической поддержки исследований проблемы добросовестности в исследованиях (Integrity of Research). Сама эта проблема вызвана и является индикатором тех изменений в структуре НТП, которые связаны с формированием постиндустриального общества и инновационным развитием экономики. Эти процессы радикально изменили структуру отношений, как в научном сообществе, так и между наукой, политикой и бизнесом. Для выявления новой системы отношений наиболее эффективным путем является продуктивная критика социологии науки Р. Мертона как единственной эффективной концепции научного сообщества.

**Ключевые слова:** научное сообщество, самоорганизация, самоуправление, коммуникация, «шаг времени» в развитии НТП, инновационное развитие, социология науки Р. Мертона.