1. INTRODUCTION

A bibliography of publications in Ottoman science studies to date would not be a thick volume. There is always the skeptic with the question: Was there really an Ottoman science? Doubts of this sort may be the grounds for the lack of interest in this topic. I believe however that these doubts are unfounded. They stem from a wrong-headed conception of science and history of science, the presuppositions of which must be superseded. To this end, I promote a philosophical vision of science which I believe must guide any historical research into the earlier forms of knowledge. This vision comes from historical epistemology. Shifting the focus of attention from individual discoveries or discoverers modern sciences take pride in to forms of validity of knowledge, historical epistemology is a call to historicize the epistemological concepts and practices, with the sensibilities of an anthropologist who is able to savor “strange” cultures.

With this perspective in mind, I present in this paper an assessment of some recent historical studies of Ottoman science and technology. I claim that many (but not all) of those studies suffer from a lack of historical perspective: They take for granted concepts such as “experience”, “experiment”, “nature”, “rational justification”, “evidence”, “objectivity”, and even the very notion of “science”, as if these were available to historical agents with their modern connotations, no matter where and when. As such, these studies conflict with the basic tenet of historical epistemology. It need not be the case that all of our epistemological concepts were of recent origin; however, one cannot simply assume that any such concept was an invariant of history and geography. Historical epistemology obliges us to understand how different cultures produced or reproduced their specific epistemological categories.

Science studies in the periphery, however, are not only part of an anthropology of peripheral cultures. The very term periphery requires an attention to its complement, the center. Scientific cultures in the periphery were not entirely insulated formations. In ways that need to be made more precise, patterns of center-periphery interaction permeated the styles of learning and research at the fringes of Europe. Challenging overly global visions of a universalist scientific culture, spatialization of reason threatens facile generalizations about the fusion or fissure of traditions, which may mistake amalgams for compounds. However, spatialization of reason is not tanta-
mount to confinement of reason to local settings. That is to say, scientific cultures are not necessarily isolated formations, separated from each other in conformity with a topology that marks off human settlements on a map. As several anthropologists have pointed out recently, one has to take into account regional and global forms of connectedness, and be wary of segmenting the world into discrete self-contained cultures and peoples.

What are the boundaries of the object of Ottoman science studies? In order to sketch out a preliminary delimitation, I focus in my review specifically on accounts of Ottoman scientific interactions with European centers. What these accounts indicate is that transmission of science was not simply a gradual diffusion of learning but rather active acquisitions and reconstructions thereof, which can be characterized in terms of forms or strategies of reception. Proposing two such schemes, what I call the instrumentalist and positivist strategies of reception, I highlight in this paper the epistemological underpinnings of these forms of selectivity. My discussion is canvassed against an overview of the Ottoman efforts at modernization, which undergirded both forms of reception strategies. In this connection, I focus particularly on the philosophy of science of an important ideologue of the Turkish Republic, Ziya Gökalp, in the writings of whom science played a crucial role to integrate the ideals of Turkism, Islamism and modernism. I end by considering an issue that pertains to both Turkish and Ottoman identities, as well as to doing history of science under any such identity, namely, nationalism.

2. HISTORICAL EPISTEMOLOGY

Many historians of Ottoman science dwell in an eternal present in matters of epistemology. For instance, the historian Ekmelettin İhsanoğlu brings to our attention the work of a native Anatolian mystic, Ibrahim Hakki of Erzurum, who wrote in a 1757 manuscript Marifetname approvingly of the heliocentric theory of the solar system. The treatise is curious for its combination at one stroke of astronomical views of European origin with legends of eastern provenance. In place of exploiting something like the genre of dialogue, whereby different viewpoints or audiences can be addressed simultaneously in one continuous narrative, İbrahim Hakki seems to have stacked two distinct narrative styles one after the other. İhsanoğlu evaluates this transition from astronomy to fiction as a “regression”, and describes it repeatedly as an “unscientific” and inappropriate move (İhsanoğlu, 1992). İbrahim Hakki appears as an anomaly in İhsanoğlu’s selection of “scientific” works from this period. I believe, in contrast, the very textual style of İbrahim Hakki is a topic for dissertations. Literary properties of a text are usually linked to its epistemological claims. İbrahim Hakki’s literary style can be studied, for instance, with a goal to understand the absence or limited presence of the genre of dialogue in the Ottoman philosophical or scientific writings. As is well known, authors such as Galileo Galilei or Marin Mersenne had exploited that genre in order to evaluate side-by-side different worldviews of the seventeenth century. In contrast, İbrahim Hakki alternated between the astronomical and the legendary, framing the novel with the traditional, thereby enhancing or preempting the claims of the one or the other.