Andrea Arredondo* (andrea.aat@gmail.com), Mexico City, Mexico. Why Natural Numbers Are Called Natural: The Impact of Social Context in Nineteenth-Century Mathematics. Preliminary report.

Natural numbers have been the main subject of a great variety of studies. However, the reason why they were called natural numbers has received little attention. In order to understand how natural numbers became natural, it is necessary to look back at the nineteenth-century German states. It is within this background that the term natural number appears for the first time in the works of Carl Friedrich Gauss, Hermann von Helmholtz, Leopold Kronecker, Gottlob Frege, and Richard Dedekind. But why did they refer to natural numbers in that way? My aim is to show that the naturality of natural numbers is not merely a result of mathematical insights, but that it is possible to see it as the product of a mixture of political, academic, and cultural forces. Transformations in education and a renewed humanism in the German states of the nineteenth-century shaped the way in which knowledge was pursued. Accordingly, certain visions of how and what was studied were privileged. German mathematicians did not escape from the influence of those visions. Ultimately, they were directed towards a specific conception of logic which not only served as a foundation for natural numbers, but made of them a natural consequence of the human mind. (Received September 21, 2012)