1023-01-610 **Maria Sol de Mora*** (demora@leibnizsociedad.org), calle del Berlins, 50, 1, 08022 Barcelona, Barcelona, Spain. *Problems of Infinitesimals: Descartes, Leibniz, and Peirce.*

The connection between very small quantities (or infinitesimals) and the infinite has always been more troubled than the idea of the infinitely large (or transfinite). Almost all civilizations have been able to think about the infinite, even if they eventually rejected it in the end on account of the difficulties that it occasions, including the many paradoxes associated with the concept, as was the case of classic Greece: only some Pythagoreans dared to support an infinite universe without bounds. Among mathematicians, the infinitely small, which was so useful for the infinitesimal calculus in the seventeenth century, was rejected afterwards with the assertion that there is only one infinite, the "great" one. But this idea was reconsidered by Robinson and others in the twentieth Century. In philosophy and science, authors like Descartes, Leibniz, and Peirce have approached this difficult issue with various results, which will be the focus of this analysis. (Received September 19, 2006)