
Does plant genetic diversity shed light on plant individuality?

Sophie Gerber*¹

¹INRA-Univ Bordeaux (UMR Biogeco) – Institut national de la recherche agronomique (INRA) – 69
route d'Arcachon 33612 Cestas Cedex, France

Abstract

The notion of individual was originally built with animals, and more precisely with the eumetazoans characteristics. Considering non-eumetazoans results in problems with the definition of individuality. Among them, plants are particularly neglected regarding individuality considerations. One of the main criteria generally related to individuality is genetic homogeneity. However plants were always considered to be different from animals for this criterion and were supposed to be heterogeneous in nature because of, among other traits, their particular cells, modularity, long lifespan,... In this paper we will first review how different philosophical studies concerned with individuality pointed out plant particularities (and especially intra-individual diversity) in different ways. We will use current scientific knowledge on plant genetic diversity to question the way plants are considered in philosophical studies. Our aim is to use a scientific perspective to shed light on the philosophical question of plant individuality.

*Speaker