

SCIENCE IN HUMAN CULTURE presents:

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The Phantom of Blending Inheritance: Statistics and the Origins of Genetics

Friday, May 2, 2008

12:00 - 1:30 pm

Hagstrum Room

University Hall 201

The theory of heredity at the beginning of the twentieth century was bound up with much larger issues of science, economy, and scientific politics, including evolution, agricultural breeding, and eugenics. The controversy between statistical and genetic approaches has often been interpreted in terms of deep philosophical differences, but the contending parties shared a basic reliance on chance and on particulate inheritance. Philosophical and conceptual differences had some role in these debates, but the controversy can be understood only in relation to incompatibilities of research programs, including the technologies and social aims with which they were linked. The similarities between biometry and Mendelism were obliterated in the histories written by the victors, notably Fisher and Dobzhansky, who identified the theory of “blending inheritance” as the fatal flaw of the biometric view of heredity. In fact, the phenotypic blending that the statisticians insisted on was recognized by virtually all scientists no later than the early 1910s. Paradoxically, the mechanism of hereditary blending was of little interest to biometrics, and—in contradiction to the still-typical historical account—was advocated as a theory only by the most radical proponents of hereditary determination of traits by a single factor or gene.

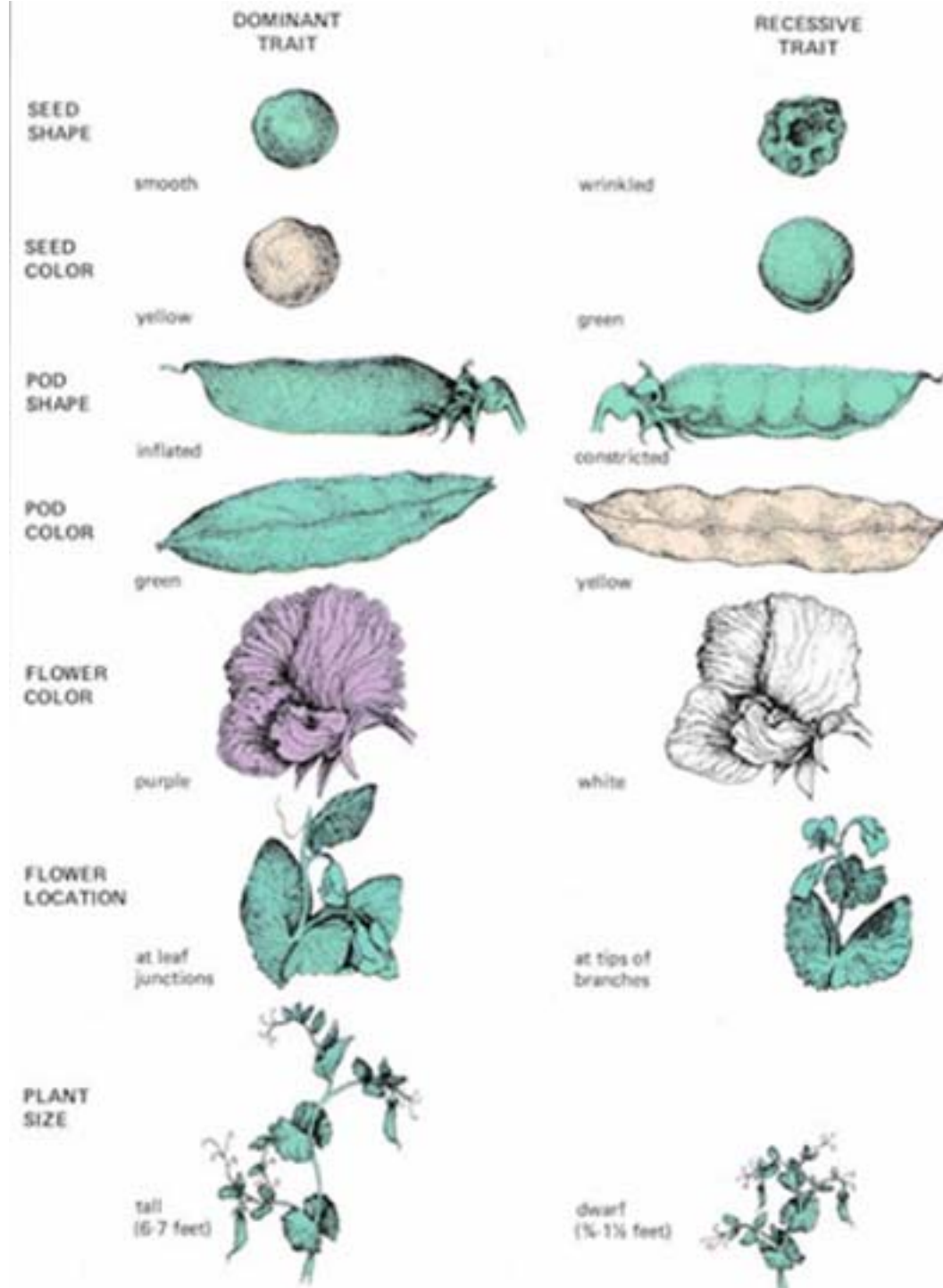


Figure 9-4, p.156 Traits of pea plants studied by Mendel