

## Commentary beyond selection

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It has been argued that the study of natural selection and quantitative genetics should have a central role in evolutionary thinking and undergraduate teaching in Chile. Extensive operational use of the concept of natural selection may seem consistent with this argument. However, advances of evolutionary knowledge in independent fields such as phylogenetic analysis, developmental evolution, and paleontology cannot be ignored. I argue here that the role of natural selection in contemporary evolutionary biology can be compared to that of Newtonian mechanics in contemporary physics: it can describe a given domain of observations, but it is insufficient to handle the different sources of evolutionary knowledge. Overemphasis on natural selection as the immediate mechanism of evolution may lead to disregard phylogenetic-historical evidence, and to ignore the important evolutionary role of non-adaptive change and epigenetic phenotypic plasticity. Natural selection deals with populations and I