

# Probing the Foundations of Cultural Evolution

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The field of cultural evolution studies cultural diversity and cultural change from an evolutionary perspective. In recent years, this approach has yielded remarkable and thought-provoking insights that are often in stark contrast to the findings of the more classical cultural sciences. Yet, the scope and limitation of the cultural evolution framework are not well established. In the workshop, we aimed at scrutinizing the conceptual and theoretical foundations of the field by assessing its core assumptions and the validity of its methods. What are the basic premises that bind researchers in cultural evolution? What are the gaps and inconsistencies in 'cultural evolution thinking' and how can these be removed? The workshop was organized around three foundational themes:

- Modelling the dynamics of cultural change. What are the main modelling approaches to capture the dynamics of cultural change? Are these approaches mutually compatible? Which approaches are most suitable for generating testable predictions?
- Unravelling the mechanisms of cultural transmission. How can we unravel the biological, psychological, and sociological mechanisms underlying cultural transmission? To what extent can experimentally deduced knowledge be up-scaled to the population level?
- Deciphering the patterns of cultural variation. Which comparative methods are used to infer evolutionary processes or events, and what is the validity of their assumptions?

The first half of the workshop consisted of eight plenary keynote lectures (with extensive discussion), which were arranged in contrasting pairs. The first pair of lectures confronted the cultural evolution approach with the approaches of the classical cultural sciences. The other three pairs introduced the three 'pillar themes' indicated above. The second half of the workshop was devoted to structured discussions in three 'pillar groups,' over which the participants were distributed according to their interest and expertise. Each group had an assigned moderator, who had the task to formulate clear goals for each discussion session and to keep the discussion on track. Moreover, each group had a rapporteur, who had the task to distil the main conclusions from each discussion session and to present these in the daily plenary meetings. The discussions resulted in a first draft version of summarizing group reports that were presented on the final day of the workshop. Together with a number of 'foundational' review articles (6-8 per pillar theme), these group reports will eventually be published in a special issue of a scientific journal.

Cultural evolution is a diverse field uniting researchers from a wide range of disciplines. Even in case of common goals, the diverse backgrounds are sometimes in the way of effective communication. The workshop generated many discussions between researchers that do not often talk to each other. Since there was plenty of time for discussion, initial misunderstanding could be resolved, resulting in a fruitful exchange of ideas. This will become obvious from the special issue resulting from the workshop, since many review articles will be written by teams of authors, who typically would not publish together.

Virtually all participants were enthusiastic about the workshop and in particular about the time available for discussion. Four ingredients were important for the success of the workshop. First, a questionnaire sent around before the start of the workshop made it clear to everybody that there is a large diversity of opinions on central issues in the field of cultural evolution. Second, each group received a list of questions to be answered by the group; this list was later updated when it turned out that some questions did not inspire discussion. Third, the moderators and rapporteurs all did an excellent job in keeping the discussions on track; this was facilitated by the fact that in the end the draft of a publishable group report was expected from them. Fourth, the Lorentz Center and its efficient and helpful staff created the ideal atmosphere for a workshop like ours.

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