

# THEORY OF CONFORMIST SOCIAL LEARNING

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## Synonyms

Conformist Transmission; Conformist Bias

## Definition

Within theories of animal behavior and cultural evolution, *social learning* or *social transmission* is the act when an individual acquires a cultural element such as an idea, a behavior or a tool, by observing (or otherwise learning from) another individual (rather than by their own invention of the element, which in the same terminology is called *individual learning*). The individual that is observed is often called the cultural parent. If social learners choose cultural parents at random, the frequencies of cultural variants among social learners will not change in any systematic way. Theories of *conformist social learning* investigate the possibility that the choice of cultural parent may be biased toward the most common cultural variant, in which case cultural evolution will become directed toward cultural homogeneity among social learners. For any specific case, a bias for socially learning the most common variant may arise in several ways – e.g., if the common variant is more attractive in itself, or if it is favored by the current norms, i.e. through mechanisms that could just as well bias the choice toward some other variant than the currently most common one. Theories of conformist social learning make a much stronger claim: that biological evolution has favored an innate psychological bias to prefer cultural parents that exhibit common behaviors. This proposed innate bias is called a *conformist bias*.

## Theoretical Background

Imitation of the most common behavior or conformity has long been the focus for social psychologists e.g. Floyd Allport's (1934) j-curve hypothesis of conforming behavior. However, more recently, there has been an interdisciplinary surge of interest in conformity and the conformist bias with papers in economics, philosophy, evolutionary computation, anthropology, and biology journals. There has been an accompanying decrease of interest in conformity within the social psychology literature where conformity is often subsumed under the title of social influence. It should be noted that the term social learning in the psychological

literature generally refers to Bandura's (1977) theory which suggests that observational learning plays a primary role in child development.

Following previous suggestions about the role of various forms of frequency-dependent transmission in cultural evolution, the specific theory of conformist social learning was proposed by Boyd & Richerson (1985) as part of their general paradigm that co-evolution of genes and culture can be studied through mathematical models inspired by population genetics. This theory has since been developed further, with Joe Henrich as main contributor. It is helpful to view the theory of conformist social learning as consisting of two main parts: first, the reasons why conformist social learning might have evolved, and second, its consequences.

The main idea of the evolutionary story is simple to describe. Assuming that individuals' biological fitness depend on which behaviors they learn (e.g., which food to eat), evolutionary processes would favor adaptations that guide individuals' learning toward those behaviors that confer the highest fitness. A bias for conformist social learning would be such an adaptation if, over evolutionary history, the fact that a behavior is common has been a sufficiently reliable cue of high fitness. It is difficult to know whether this has been the case in human evolution. In the absence of data, a couple of processes have been suggested that could create such a correlation between commonness and fitness. First, assuming that children have learnt their behaviors mainly from their parents, natural selection would have favored those behaviors that confer high fitness (Boyd & Richerson, 1985). Second, assuming that individuals tend to evaluate behaviors and generally prefer those that confer high fitness, then those behaviors will become common (Henrich & Boyd, 1998). Observe that both assumptions necessarily limit the role of conformist social learning, as it cannot be such conformism that makes a cultural element common in the first place. For instance, in the first case learning is assumed to be mainly from biological parents, whereas conformist social learning applies to situations where you learn from others, which by the same assumption are rare. It has also been shown to be difficult to reconcile these models with the cumulative nature of human culture (Eriksson, Enquist & Ghirlanda, 2007).

The second part of the theory deals with the within-group cultural homogeneity that conformist social learning would tend to lead to over time, and its possible implications for cooperation and group selection (e.g., Henrich, 2004).

## Important Scientific Research and Open Questions

Although the theory of conformist social learning was developed by cultural evolutionists, the notion of a bias for learning from a member of the majority clearly falls within the realm of social psychology, where conformity has been studied since the famous 1950s experiments of Solomon Asch. Experiments in this tradition found that a subject is much more likely to agree with an erroneous judgment if it is expressed by a unanimous group rather than just a majority. This and other findings from experiments on the social influence of groups were incorporated in the social impact theory of Latané (1981). On the topic of the size of the group, this theory states that the marginal social impact is decreasing, meaning that minority groups have stronger impact relative to their size. From the point of view of the social learner, this would in effect mean a bias *against* learning from a member of the majority. Thus, evidence from social psychology does not support a general bias for conformist social learning. Without a general bias, the second part of the theory that deals with the implications of conformist social learning is applicable only in contexts in which social learning tends to be conformist for context-specific reasons. Which these contexts may be is a completely open empirical question. However, suggestions include so called "coordination games" where everyone gains from choosing the same behavior as others, situations where an individual has reasons to believe that others have better information (e.g., when the individual is a newcomer), and when a group has established norms about certain behavior such that deviations are discouraged (Eriksson, Enquist & Ghirlanda, 2007; Eriksson & Coultas, 2009). These suggestions relate to earlier work on social influence by Deutsch and Gerard (1955) where influence can be either normative (individuals change their behavior to avoid social exclusion) or informational (individuals believe that others are more knowledgeable).

## Cross-References

- Social Learning
- Learning (and Evolution) of Social Norms
- Imitation: Definitions, Evidence and Mechanisms
- Evolution of Learning
- Cumulative Learning
- Constraints of Learning (Evolutionary or Biological Constraints)
- Conditions of Learning

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