What Does Birdsong Suggest about the Content of the Human Language Faculty?

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A basic question in linguistic theory is that of how wide a range of grammatical systems the human Language Faculty should accommodate, and whether limits on that range are due to the innate structure of the faculty or to external, language-independent constraints. Proposed answers range from potentially unconstrained variation (Evans & Levinson) to a single innate perfect system (Minimalists). Empirically grounded resolution of such basic matters is limited, however, by the fact that whatever the Language Faculty may be like, it is apparently largely uniform over the only species that has it, Homo sapiens. As a result, we cannot consider the consequences of variable functional constraints or variable evolutionary histories for the range of languages to be accommodated.

Some possibly relevant comparative evidence is available, however, from a system that is strikingly parallel to human language in some respects (though quite different in other, basic ones): song in oscine birds. Each of the more than 3,000 species of oscines has a distinctive "grammar of song," allowing for the acquisition and use of some patterns and not others. Each species has distinctive anatomical features that may impose fictional constraints on song, and each has its own evolutionary history. Both of these factors can be shown to interact in determining a species' song system, suggesting that this system is constrained (tightly in some species, more loosely in others) by innate factors that are the product of contingent evolutionary development shaped at least in part by functional pressures.

Applying a similar model to human language suggests a system along the lines of that proposed by Pinker and Bloom (1990), Jackendoff (2002), and Anderson (2013), on which language is a complex adaptive system allowing for a range of possibilities constrained by innate factors deriving from our evolutionary history; and where some of that history, at least, has been shaped by external functional pressures.