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### **Algorithmic Program Synthesis of Morphophonological Rules**

Both children and linguists confront a similar problem of inference: given linguistic data, discover the grammatical principles that relate form to meaning. We study this computational problem within the domain of morphophonology, adopting the framework of Algorithmic Program Synthesis in which learning is formulated as synthesizing a program which compactly describes the input data. Exploiting recent techniques from the field of program induction, we discuss how this approach can be used to study the consequences of differing substantive assumptions about linguistic representation and learning.