Why do people speak different languages? Religious explanations aside, the usual account is that languages diverge when an initial speech community disperses, such that the language of the new speech communities begins to drift independently instead of together (Sapir, 1921). Without denying the existence of such non-functional random drift, it is becoming clear that many linguistic differences from phonology to grammar, to vocabulary show a fit to the environment—that is, show evidence of design. For example, some aspects of phonology can be predicted from climate (Everett, Blasi, & Roberts, 2015), some aspects of grammar can be predicted from the size of the language's population (Lupyan & Dale, 2010), and differences in the number of color words relate to the use of dyes in a culture (Conklin, 1973). Such non-random variation calls for the need to consider whether and by what mechanisms languages adapt to the environments in which they are learned and used. I will discuss some of the reasons why researchers have been reticent to accept the idea that linguistic diversity is caused by adaptation, and describe some of the challenges that this adaptationist perspective faces. I will end by outlining some of the exciting new research questions that arise when we apply the adaptationist perspective to questions of linguistic diversity.