In recent years there has been a rapidly growing awareness of the importance of sociophonetic variation for advancing models of speech production, perception and learning. Meanwhile within sociolinguistic research there has been an equally rapidly evolving recognition that full accounts of the social marking functions of speech communication require greater focus on the manner in which individuals deploy phonetic resources variably as a reflection of the fluid identities which they project across the diverse interactions which they participate in. The aim of this talk is to explore some of the methodological consequences of these developments. We explore the ways in which an approach to sociophonetic variation which rightly focuses on how it plays out in the performance of individual speakers can be reconciled with the development of models of speech production and perception which to date have typically been driven by what is found to be common across individual speakers/listeners and much less by those factors which differentiate them.