What derivational structure can do for syntacticians and for psycholinguists

My aim in this talk is to demonstrate a way of strengthening the connection between two kinds of work: work which aims to characterize patterns of well-formedness through the use of often subtle derivational mechanisms ("syntax"), and work which investigates the timecourse of sentence comprehension through behavioural experiments ("sentence processing"). I will show how a single idea about the grammar of long-distance dependencies, and the way they relate to standard local "merge" dependencies, can do useful work for us in both of these domains. On the one hand, the adjusted understanding of the relationship between merge and move makes available an analysis of adjunction structures that neatly explains a number of well-known syntactic generalizations concerning the argument/adjunct distinction. On the other, it provides us with a concrete characterization of the grammar's abstract structure that allows us to calculate probabilistic measures such as surprisal, and thus derive sentence comprehension difficulty predictions. As well as showing how this one particular idea can be used in both domains, the more general aim is to illustrate the way in which the two kinds of work can be linked, i.e. the sense in which a derivational grammar is a theory that bears both on well-formedness and on the timecourse of sentence comprehension.