Summary We examine the diachronics of a new passive construction in Icelandic [1] and use Yang’s model of language learning and change [2] to explain its rapid rise.

Linguistic Background Icelandic has a canonical passive (CanP) construction (1a) but has witnessed the emergence of a functionally equivalent new passive (NewP) in the recent past 50 years [1]. As shown in (1b), “the boy” bears accusative/object case and remains structurally in the object position with syntactic properties associated with objects [1]. Analogous constructions of NewP can be found in Ukrainian.

(1)  a. Strákurinn was laminn. Canonical Passive = CanP
    boy.the_subject beaten_passive

  b. það was lamið strákinn (New Passive = NewP)
    there_expletive beaten_passive boy.the_object

Modeling Change This diachronic change can be viewed as the competition between CanP and NewP [2, 4]. The rise of NewP is facilitated by the preponderance of data ambiguous between the CanP and NewP, notably non-canonically case-marked subjects of the passive–DAT, GEN, syncretic DAT/ACC, also syncretic NOM/ACC. The model of language change in [2] allows us to predict the directionality of change of competing grammatical variants. The key is to estimate the proportion — dubbed advantage in [2] — of contexts under which the syntactic realization of NewP is incompatible with the CanP grammar and vice versa. We estimate these values from the IcePaHC corpus [5], focusing on the data which are an advantage to only one of the two grammars. We annotated 4538 passives for word order and subject definiteness. The advantage of NewP is determined by the frequency of definite-Theme-initial where the Theme is neutral in interpretation (thus would appear in object position if generated by the NewP grammar). The advantage of CanP is determined by the frequency of XP auxiliary indefinite-Theme (the Theme must be low in NewP). These values are respectively 0.5 and 0.05.

Note that the model [2] is not one of actuation, but accounts for the (predictable) consequences of actuation. The actuation itself is a consequence of the changed syntax of definite subjects in 20th century Icelandic. The mathematical properties of the model suggest that if the advantage of NewP is greater than that of CanP (0.5>0.05), its rise to complete acceptance is inevitable. Furthermore, the advantage values allow us to predict the expected number of generations for NewP to rise to a certain level of usage. According to the most recent survey [6], 60% of 14-15 years fully accept NewP. This proves to be approximately 2 generations, which is consistent with the emergence of NewP in the 1950s. We predict that the change will be complete in four generations such that approximately in the years 2025-2050, acquisition of CanP will decline sharply.