One of the more intriguing phenomena in Dutch syntax, both standard and dialectal, is the so-called Infinitivus Pro Participio (IPP)-effect, by which a past participle in the clause-final verb cluster is “replaced” by an infinitive when it takes an infinitive as its complement:

\[(1) \quad \text{dat hij de hele dag heeft kunnen / *gekund werken} \]
\[-that he the whole day has can / *could work-
\]
\[-‘that he has been able to work all day’\]

In the many studies of the IPP-effect in the literature on present-day West-Germanic languages, there is considerable consensus on the following core properties of the IPP-effect:

- The IPP-effect occurs in some varieties of West-Germanic that have left-branching verb clusters; it occurs in all varieties that have right-branching verb clusters.
- The IPP-effect only occurs in those varieties of West-Germanic in which the past participle has a ge- prefix (e.g. Frisian and Stellingwerfs have neither).
- Where there is variation with respect to the type of verb introducing the verb cluster in which the IPP-effect occurs, there is an implicational hierarchy: causatives < modals < perception verbs < benefactives < duratives < inchoatives < control verbs. In other words, the IPP-effect, when it occurs at all, occurs first with causatives (see most recently Schmid (2005). We will here consider the first two types of verb in this hierarchy only.

According to historical Dutch grammars, the IPP-effect was already well-established in Middle Dutch, but it is not attested in the oldest varieties of the West-Germanic languages – there is no trace of it in the Old High German, Old Saxon, Old English texts. In Old English, for instance, the perfect participle features in verb clusters of a maximum length of three verb forms (e.g. Koopman 1990), suggesting that something like the IPP-effect was necessary to facilitate the long verb clusters that are characteristic of the modern continental West-Germanic languages. This is confirmed by our findings in the 15th century dialects of Dutch as presented below.

The material presented here makes use of and builds further on the account in van Dijk (2003). The introduction of the IPP-effect is traced to 13th century texts from Brugge (Flanders). The first uses of the IPP-effect occur in the complement of causative *doen* ‘do’; its spread to the complement of modal verbs is of later date. This is suggestively in line with the implicational hierarchy above: the IPP-effect, when it occurs, minimally occurs with causatives. The question is why.

To answer this question, and following up on the observation that the IPP-effect is restricted to varieties of West-Germanic that have a past participle prefixed by ge-, we will look at the larger historical context in which the past participle with ge- developed. In Gothic, ge- features as ga- and is a particularly productive derivational prefix, rendering an infinitival verb stem perfective and telic: hausjan ‘hear’ versus gahausjan ‘learn’; beidan ‘wait for something’ versus gabedian ‘put up with’; brikan’ break’ versus gabrikan ‘break to pieces’. This is not infrequently accompanied by a valency effect, e.g. jiukan ‘fight’ versus transitive gajiukan ‘to conquer’; aiwiskon ‘behave shamefully’ versus transitive gaiwiskon ‘to insult’.
We will motivate an analysis in which \textit{ga-}/\textit{ge-} acts as the \textsc{cause} element in a lexical decomposition à la Baker (2003). In other words, \textit{ge-}/\textit{ga-} is a light verb productively deriving perfective verbs.

The next step is to look at the development in the history of Dutch against the backdrop of the larger West-Germanic development. We will present evidence that in the Old Low Franconian dialects there is still clear evidence that the analysis for Gothic \textit{ga-} can largely be maintained. But \textit{ge-} has also developed as a past participle marker, which is of course a spin-off of the aspectual effect it had long had. This paves the way toward an answer to the question why the IPP-effect first occurs in the complement of causatives: at the time of the actuation of the IPP-effect, \textit{ge-}, beside marking the past participle, still has independent status as a \textsc{cause} light verb and is incompatible with a causative verb. The IPP-effect thus comes into being as a strategy of circumventing the doubling of the CAUSE light verb.

Once the IPP-effect is available in the grammar, it spreads to the complementation domain of modal verbs. We assume with Zwart (2004) that this is possible because modals require an atelic complement. Since a spin-off of the IPP-effect is to render the complement atelic, the spread to the complementation domain of modals is a possible and natural effect, albeit not a necessary one.

When the IPP-effect is available in the complement of modal verbs, restrictions on the length of verb clusters disappear: we will present evidence from Dutch dialects in the 15th to 17th centuries which shows that the length of (right-branching) verb clusters with IPP-effect increases by the decade. This shows that the IPP-effect was a development that was prior to any further grammaticalization of modal forms.

Finally, we will consider the kind of change that our scenario for the origin and rise of the IPP-effect entails. It shows, we think, a highly structured, yet fairly haphazard chain of cause and effect. The IPP-effect, at the time of its incipience, is a highly local way of resolving a valency clash in the complement of causatives. Its spread to the complement of modal verbs was not necessary, but the complementation domain of modals was semantically compatible with the IPP-effect. Once the IPP-effect was available in the complementation domain of modals, the length of verb clusters increased, but merely because it could. This scenario is thus a good example of the un-contingent nature of change.

References
Dijk, Kees van (2003), \textit{The Rise of the IPP effect}. Ms.