

Anne Merkuur, *Changes in Modern Frisian verbal inflection* (dissertation University of Amsterdam). Amsterdam (2021), LOT 603, 306 pp. ISBN 978-94-6093-388-2. DOI: <https://dx.medra.org/10.48273/LOT0603>.

This book is the published version of Anne Merkuur's doctoral dissertation developed at the Fryske Akademy and University of Amsterdam, and supervised by A. P. Versloot, J. Don (both University of Amsterdam) and E. Hoekstra (Fryske Akademy). It contains eight chapters (an introduction, theoretical framework, five case studies and final discussion), supplemented by appendices with survey questionnaires, additional analyses of data from MAND, and summaries in English, Dutch and Frisian. In the following, I first summarise the main empirical questions and findings before then discussing the methods and theoretical framework.¹

The overall aim of the study is to empirically describe, theoretically model and explain the ongoing changes in the conjugation system of West Frisian in order to gain insight into the mechanisms of morphological change, in particular, relating to why certain changes occur and others do not (Ch. 1 Introduction, p. 1). Merkuur considers Frisian, due to its low degree of standardisation and close contact to Dutch, as a fruitful testing ground for theoretical notions of morphological variation and change. In contrast to Dutch and most other West Germanic varieties, West Frisian has retained two weak conjugation classes. This study focuses on phenomena occurring within the largest of them, weak class II, which incorporates 81% of types listed in the lexical databases of the Fryske Akademy (p. 57). The class features discussed include the lack of a dental suffix in the preterite and past participle and syncretism in the category tense in the 2nd person singular.

Chapter 2 then introduces the notion of morphological change adopted in the study, which essentially focuses on generalisations based on ambiguous input in acquisition, and the theoretical framework, which combines two formal approaches, Distributed Morphology and the Tolerance Principle.

The subsequent chapters provide in-depth case studies. Chapters 3 and 4 address the relationship between weak class I (with infinitives in *-a*, and preterites and past participles with a dental suffix) and weak class II (with infinitives in *-ja*, and preterites and past participles without a dental suffix) within the overall conjugation system. Merkuur investigates which classes and subclasses can be considered rule-based from a Distributed Morphology perspective (Ch. 3). On this basis, she tests which of these rules are then identified as productive generalisations when the Tolerance Principle, a measure of inflectional productivity first proposed by Yang, is applied to them (Ch. 4). Contributing to a long-standing discussion in the field, Merkuur then focuses on the question of whether one of the

1. I am grateful to Julie Davies from Academic Editing Support, University of Münster, for very helpful suggestions improving the readability of this text. Remaining shortcomings are mine.

two weak classes is the default or whether both classes are productive. Merkuur's analysis demonstrates that all West Frisian agreement morphology is class neutral. For the conditioning of stem formatives and tense morphology, she proposes a feature "class" on the lexical level. Furthermore, her analysis of comprehensive dictionary data suggests that class membership is almost completely random. Both classes appear to be productive when sub-rules are assumed for irregular groups within weak class I and there is no conclusive evidence that either class is the default. Nor is there evidence that the rules for weak class I and II have a nested or disjunctive structure.

In Chapter 5, Merkuur investigates the frequency and conditioning factors of class shifts from weak class II to weak class I with a special focus on possible Dutch influences (which have been intensely discussed in previous research). She tests for Dutch influences by comparing different degrees of lexical similarity including dissimilar counterparts, similar cognates and loan words. This influence may also apply on the level of conjugation pattern, as the only weak conjugation class in Dutch formally overlaps with weak class I in Frisian. Merkuur's analysis of putative class shifts is based on an online questionnaire study (a snowball sample with 321 participants) consisting of sentence completion tasks with gaps for preterite forms and pure verb stems as stimuli. In addition to social variables (such as region, age and self-assessed proficiency in writing), the similarity of the stimuli to their Dutch equivalents and the various forms within the preterite paradigm were tested as structural variables. Merkuur shows that, overall, changes occurred in only 6.6 % of the test items and these changes were highly sensitive to paradigm cells. They mainly occurred in the 2nd person singular past (and to a lesser extent in the 1st person singular past). Therefore, Merkuur concludes that the phenomenon is actually a change within weak class II rather than an ongoing change towards weak class I. Moreover, she found that young age and low proficiency in writing have a smaller positive effect on the use of class I tense markers and discusses these effects as evidence of ongoing change in apparent time. Merkuur also identifies factors favouring resistance to change, namely high token frequency and dissimilarity to Dutch counterparts. Overall, Merkuur's case study does corroborate the similarity effect proposed by previous studies, however, it finds that the effect of the paradigm cell is greater still. Consequently, Merkuur investigates what occurs in the 2nd singular past in a more detailed way in the subsequent chapter.

In Chapter 6, the empirical finding that – and the question why – the 2nd person singular past is much more likely to change to weak class I than other paradigm cells is embedded in a more comprehensive diachronic scenario of a chain shift that affects strong and irregular verbs as well as weak class II verbs. Building on the work of J. Hoekstra, Merkuur argues that the catalyst of this chain is a phonological change in weak class I that, around 1900, led to the development of a transparent tense marking dental suffix in the 2nd singular preterite (e.g. *bakste* > *baktest*). The supposed starting point of morphological change within irregular/strong and weak class II verbs were forms with stem final dental plosives that are

homophonous in the present and the preterite and are, thus, open to reanalysis as lacking a dental suffix. After this reanalysis, the new suffix analogically spread to other strong/irregular verbs of similar stem shapes (around 1950). The starting point in weak class II verbs was, again, the homophony of 2nd singular preterite and present inviting reanalysis of the preterite as lacking a dental suffix.

Merkuur corroborates this scenario by conducting productivity calculations based on the Tolerance Principle for both groups. The outcome suggests that weak class II verbs are even more prone to develop the new productive generalisation than strong/irregular verbs and might have started to change earlier than previously assumed. Merkuur attributes the timing of the actuation (around 1950) to the additional factor of increasing contact with Dutch. She frames this as an indirect influence on the grounds that it is the Frisian system that allows the alternative analyses, one of which, the new rule “add *te/de* for past tense” is supported by Dutch verbal inflection, which displays these markers consistently and has no pattern of tense syncretism in the 2nd person singular. Moreover, Merkuur shows that weak verbs of lower frequency are affected while token frequent verbs with stem alternations, such as the group around *meitsje*, resist this change.

In Chapter 7, Merkuur empirically analyses and theoretically discusses the phenomenon of suffix telescoping in two types of past participles with an intransparent stem-suffix border. In weak type I (*praat* > *praten*), a stem final dental plosive is fused with the dental suffix while in irregular type II (*sjoen* > *sjoend*), ambiguity as to whether the nasal is part of the stem or the suffix prompted the addition of a dental suffix. There seems to be no connection between the two types in Modern Frisian. However, it would be interesting to see an account of how these variants emerged leading up to the sixteenth century within the same southwestern area (understandably, this is beyond the scope of the present study).

Again, Merkuur’s analysis is based on an online questionnaire (271 valid responses) with sentence completion tasks including the social variables region (actual and birth), age and Frisian instruction. The data corroborates that type I (*praten*) spread from the southwest and this variant reached a high average of 61% of test items while showing no effects of token frequency, age or proficiency. In contrast, type II (*sjoend*) receded within the southwest and resistance to change correlated with high token frequency, which can be considered evidence of lexical retrieval. Thus, Merkuur concludes that a productive generalisation arose only for the *praat*-group. Again, she conducted productivity calculations based on the Tolerance Principle, the results of which are in line with the empirical findings from the questionnaire. Irregular type II forms (*sjoend*) only reach productivity when they are maximally present in the input (as in the southwestern region). For type I (*praten*) forms the model predicts spread beyond the region of origin. Thus,

the more traditional and the newer methodological approach corroborate each other based on the two different datasets: the questionnaire and the lexical databases.²

The online questionnaire studies include relevant social variables such as self-assessment of speaking and writing proficiency, age, region, mobility, instruction in Frisian and level of education. Both are well-designed, state-of-the-art sentence completion tasks. The quantitative productivity analyses were conducted based on extensive dictionary data from the *Wurdboek van de Fryske Taal*, *Taalweb Frysk* and *Taaldatabank* (Fryske Academy). To simulate a large enough Frisian corpus for frequency rating, the information on token frequencies needed for the productivity calculations was drawn from the Corpus Gesproken Nederlands (CGN). All quantitative analyses incorporate adequate descriptive and evaluative statistics.

The theoretical framework chosen and tested in the book (discussed in detail in Ch. 2) relies axiomatically on first language acquisition as the locus of language/morphological change and connects two formal approaches: Distributed Morphology, which is a morpheme-based realisational model of morphology in the generative tradition, and the Tolerance Principle proposed by Yang, which models processing and acquisition of morphological generalisations and proposes a categorial and quantitatively testable notion of inflectional productivity.

Being based on how many exceptions a rule can tolerate without losing its ability to apply to new cases, Merkuur's calculation depends on the type frequency relations of pattern members against exceptions. The formula for the tolerable number of exceptions for a rule is the total of N (cases) divided by the natural log of N, where the quotient $N/\log N$ must be higher than the number of existing exceptions. From a processing perspective, the measure determines the point at which it becomes faster to retrieve forms from storage than to process them by rule (p. 24 f.). This measure also implies that rules with a smaller scope can tolerate more exceptions than rules with a wider scope. Moreover, the smaller the input, the easier it is for learners to recognise an existing productive rule (pp. 25f) or to abduce a new rule from ambiguous input. Although the Tolerance Principle is a measure of processing, centred on type frequency, it also integrates token frequency. This is achieved by restricting N to types with at least one token per one million words and by ranking exceptions in processing according to their token frequency. This part of the model is linked to language acquisition through the component of an inductive learner and by restricting the input N stepwise to higher token frequency levels, which may simulate child-directed speech to a certain degree. Two other specific points are relevant for Merkuur's theoretical discussion. Firstly, the Tolerance Principle allows for productive subrules at no processing cost as long as they are nested within more general rules, following the elsewhere-

2. In Chapters 4 and 7, Merkuur also integrates dialect atlas data and, in Ch. 7, provides examples from historical texts as evidence of the longstanding existence of the *praten*- and *sjoend*-type participle variants in the southwest.

principle, and, secondly, the model does not distinguish between rules involving stem alternation and rules involving affixation.

Merkuur's presentation of the model is clear and accessible to readers, even if they are not familiar with the framework. This is a definite strength of the book that also holds true for the Distributed Morphology account of the Frisian verb system in Ch. 3. However, as the main explanative weight of the study lies on the Tolerance Principle, I would have been (even) more convinced if detailed information had been provided as to why exactly $N/\log N$ is an adequate measure for distinguishing categorically productive from unproductive rules and if empirical evidence had been provided that the model simulates processing in a psychologically realistic way.

In the monograph, morphological change is defined as applying an alternative analysis of ambiguous input based on productive rules (p. 29). More specifically, the notion that reanalysis is triggered by ambiguities at the stem-suffix border is a common denominator of several case studies. However, A re-occurring problem for both of the theoretical approaches tested in this work (as Merkuur insightfully discusses) is their inability to cope with processes of reanalysis that are sensitive to modified/derived stems such as past participles with a fusion of stem final dental and suffix or stem alternation plus suffixation, i.e., to cope with generalisations which would be described as product-oriented interparadigmatic regularities in word-based approaches. Distributed Morphology and the Tolerance Principle both struggle with interrelations of this nature. The inductive learning model connected with the Tolerance Principle would conflate the generalisations concerning stem and affix into one and the same rule, while Distributed Morphology would hierarchise them and neglect stem alternation altogether. Generally, I would have liked to see a more detailed discussion in Chapter 2 or 8 of why Merkuur chose this specific theoretical framework. It would be useful to know whether other approaches offer less adequate explanations of the data at hand or have just not been tested, although the discussion in Chapter 8 does suggest the second option.

Notwithstanding these questions, I would emphasise that I regard Merkuur's thesis to be a felicitous example of fruitfully connecting theoretical and empirical approaches. Indeed, the high degree of critical reflection is a definite strength throughout the book, especially in the closing discussion. Although Merkuur chooses a specific framework to put to the test, she discusses the theory's internal issues openly from a general perspective (e.g. p. 255) and hints at alternative approaches. Some of the developments might suggest that a more paradigmatic (word-based) perspective could be fruitful. For example, the development of class neutral inflection in one paradigm cell, the 2nd singular preterite (p. 261) raises the question of whether a lexical feature "class" of Distributive Morphology is a psychologically realistic representation within this change. The cross-linguistic Frisian-Dutch relations of syncretism patterns, and the product-oriented generalisations between past participle stems lend themselves to analyses within word-based relational approaches. Word-based approaches may differ from morpheme-

based models in what they consider to be rule-following items (lexemes, processes, word forms or paradigmatic relations between word forms). Yet, perhaps these views need not be mutually exclusive.

As an additional but crucial explanative factor for the actuation of changes and similarity effects, Merkuur includes the bilingual situation of Frisian and Dutch in an informal way. In Chapter 8, she proposes that future research includes this factor more systematically in modelling change and that it differentiates between first and second language acquisition while doing so. She also suggests that interference may relate not only to lexical stems, but also to inflectional suffixes and patterns, and that Dutch influence has an indirect effect when Frisian input allows alternative generalisations. Thus, Dutch may reinforce a new generalisation suggested by inconclusive Frisian input. As the influence of bilingualism can only be integrated into modelling when its effects are known, Merkuur proposes that existing and future studies on interference phenomena between Frisian and Dutch, on various linguistic levels, should be compared and integrated from a comprehensive perspective.

All chapters of the work are well-written, to the point and free of terminological sabre-rattling. Some formulations and figures are repeated across chapters, e.g. the footnote explaining the pronunciation of class specific inflection suffixes, p. 2, 37, 145, 187). However, this practice effectively facilitates reading individual chapters selectively and independently. While reading, I would have found it useful to have an index of subjects, abbreviations, tables and figures.³

Overall, the book is an empirically solid, original and meticulous study that provides new insights into the ongoing changes in West Frisian conjugation. It is theoretically well-anchored and tests established formal morpheme-based models on a challenging data set. The analyses and theoretical discussions are presented in such a clear, transparent, open and thought-provoking way that it is easy to take up the theoretical ideas presented in the book and apply them to other kinds of data or to test other theoretical approaches on the data at hand. Merkuur definitely achieves her aim of providing a better understanding of how and why Frisian verbal inflection changes and, especially, how new generalisations emerge.

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3. I also noticed some immaterial errors in the text. The descriptions of greyscale figures used coloured terms (p. 71, p. 154) and there is an incorrect caption below figure 7.13 (p. 221).