

*The Dynamics of the Linguistic System.
Usage, Conventionalization, Entrenchment*

Hans-Jörg Schmid, LMU Munich
Oxford University Press, January 2020

Table of Contents

1. Introduction

Part I: Usage

2. Usage events and utterance types
3. Co-semiosis and other interpersonal activities
4. Association and cognitive processing
5. Forces affecting usage
6. Summary of Part I

Part II: Conventionalization

7. Understanding the process of conventionalization
8. Usualization
9. Diffusion
10. Summary of Part II

Part III: Entrenchment

11. Understanding the process of entrenchment
12. The routinization of syntagmatic associations
13. The routinization of symbolic associations
14. The routinization of pragmatic associations
15. Summary of Part III

Part IV: Synopsis: The EC-Model as a complex-adaptive model

16. Summary of the EC-Model
17. Persistence
18. Variation
19. Change
20. Conclusion

Chapter-by-Chapter Summary

1. Introduction

Chapter 1 provides an introduction to the book. It formulates the goal to understand how language usage, communities of speakers and the minds of individual speakers interact to shape the linguistic system and to control its persistence, variation, and change. The chapter provides a first sketch of the Entrenchment-and-Conventionalization Model (EC-Model) and explains its basic components and the ways in which they work and interact. The chapter situates the model in the linguistic landscape by formulating its predictions: language is usage-based, emergentist, based on function and interaction, based on domain-general cognition, cognitive, sociocognitive, social, dynamic, and complex-adaptive. The terms ‘conventionalization’, ‘usualization’, ‘diffusion’, ‘entrenchment’, ‘routinization’, and ‘schematization’ are defined.

Part I: Usage

2. Usage events and utterance types

Usage takes place in the form of usage events involving utterance. The chapter lays the foundation for the understanding of usage events and utterance types. Usage events consist of several components, all of which can become conventionalized and entrenched:

- utterances (including the required motor and sensory activities), licenced by more or less conventionalized utterance types
- communicative goals of participants,
- cognitive and interpersonal activities,
- and the linguistic, situational, and social context.

Utterance types are contingent links between communicative goals and linguistics forms. They are contingent on several dimensions:

- the onomasiological link between goals and forms,
- the semasiological link between forms and meanings,
- combinations on the syntagmatic dimension,
- cotexts and contexts,
- as well as communities.

Utterance types are defined as multiply contingent and probabilistic connections between goals and forms. Three classes of utterance types are distinguished with regard to their function, specificity, and size:

- *distinctors*, i.e. phonemes and graphemes,
- specific and variable *units*,
- and partly or fully variable *patterns*.

Although the notion of *utterance type* is similar to that of *construction*, it is preferred in order to emphasize the dynamic and contingent nature of form-meaning relations.

3. Co-semiosis and other interpersonal activities

This chapter discusses interpersonal activities which have the potential to feed into conventionalization and entrenchment. *Co-semiosis* is the most important interpersonal activity. It is defined as *the negotiation of the mutual belief of mutual understanding and shared intentionality*. Co-semiosis is based on the licensing potential of utterance types.

Another important interpersonal activity, *co-adaptation* is the tendency to repeat and adopt aspects of the speech or style of others in a usage event. It is also known as accommodation, alignment, persistence, etc. Arguably, co-adaptation has a strong potential for contributing to the conventionalization and entrenchment of all kinds of utterance types. *Co-construction* is yet another important interpersonal activity closely related to the negotiation of shared intentionality. Further interpersonal activities which are important for the conventionalization of utterance types and the entrenchment of patterns of associations are turn-taking and illocutionary and perlocutionary acts, mitigating, stance-taking, and acts of identity, i.e. self-presentation and positioning.

4. Association and cognitive processing

The chapter discusses the cognitive activities which are performed in usage events and entrenched, if repeated. The key cognitive activity is *association* in the associative network, with four types of associations (symbolic, paradigmatic, syntagmatic, paradigmatic) being activated in lexical and syntactic processing. Both processing and representation take place in the form of entrenched patterns of associations.

Language processing is explained in terms of the activation of associations. This activation is probabilistic and follows the principle of predictive coding. Lexical-semantic processing is understood in terms of dynamic and transient multidimensional activation patterns in the associative network targeting attractors in the network. A highly dynamic and flexible

associative model of syntactic processing is proposed. It is first developed with reference to two examples and then described in general form. The model is very important for the understanding of entrenchment to be discussed in Part III, because patterns of associations which are activated repeatedly during processing eventually become entrenched as attractors representing linguistic knowledge.

5. Forces affecting usage

This chapter provides a brief discussion of forces that affect usage.

- According to the feedback-loop idea dominant in the EC-Model, processes and activities can also act as forces: the more conventionalized and entrenched, the more likely to be used.
- Production circumstances (i.e. channel and medium) affect the choice of utterance types in context.
- Cognitive economy and communicative efficiency are competing forces, with the latter promoting the use of speakers' entrenched routines and the latter encouraging them to factor in hearers' needs.
- Extravagance, expressivity, foregrounding, and attention-seeking salience facilitate the production of creative utterances.
- Politeness and impoliteness are social forces influencing the choice of utterance and affecting their conventionalization and entrenchment.
- Solidarity and distance can influence the choice of utterances in context to signal in-group membership or emphasize group differences.
- Speakers assert power in their behaviour in concrete usage events.

6. Summary of Part I

This short chapter provides a summary of Part I of the book. It emphasizes the claim that all aspects associated with usage events have the potential to become conventionalized and entrenched. These include the forms and meanings of utterances, the interpersonal and cognitive activities involved in their production and comprehension, and the cotextual, contextual, and social characteristics of utterances. The chapter also highlights the special role played by pragmatic associations as mediators between interpersonal and cognitive activities and their conventionalization and entrenchment. Forces affecting usage are portrayed as fairly stable sociopragmatic and emotive principle whose concrete manifestations are however subject to change.

Part II: Conventionalization

7. Understanding the process of conventionalization

This chapter sets the scene for the two subsequent chapters on usualization and diffusion. Conventions are defined as *regularities of behaviour the members of a community conform to because they mutually expect each other to conform to them*. Conventionality is shown to be multidimensional and not fixed but contingent. Usualization and diffusion are the two sub-processes of conventionalization. Both are driven by the speech chain mechanism, but affect different dimensions of conventionality or conformity. Different kinds of utterance types, e.g. content words, functions words, deictic elements, grammatical patterns, or shibboleths, are marked by systematically different conformity profiles, depending on the dominance of the different dimensions of conformity.

Conventionalized utterance types function as implicit and explicit norms. Linguistic innovations can be understood as utterances that are only partly licensed by conventional utterance types. Innovation covers a range from complete novelty to hardly noticed non-salient utterances.

Various forces drive and modulate conventionalization: co-semiosis and co-adaptation, identity and social, prestige and stigma, mobility, multilingualism, and language contact.

8. Usualization

The chapter discusses the nature of the process of usualization and explains its contribution to the conventionalization of innovations, to linguistic variation, change, and persistence. Usualization is explained with reference to Berger and Luckmann's (1966) constructivist model of the sociology of knowledge. It is responsible for the conventionalization of innovative form-meaning pairings as well as innovative forms and meanings.

It is argued that linguistic variation on all dimensions, from form, structure, and meaning to situational, social, and individual variation can be handled by the unified approach suggested by the EC-Model. Usualization is a major factor in types of language change labelled by such terms as *grammaticalization*, *lexicalization*, *pragmaticalization*, *idiomatization*, and *context-induced change*. A case study of the development of the *going-to* future illustrates this potential. Not only variation and change, but also the persistence of structure are dynamic in the sense that it must be refreshed by continual usualization.

9. Diffusion

The chapter discusses the nature of the process of diffusion as a feedback-loop process and explains its contribution to the conventionalization of innovations, to linguistic variation, change, and persistence. The chapter is divided into sections portraying spatial diffusion, social diffusion, and stylistic diffusion as highly dynamic, potentially reversible, and therefore largely unpredictable. Aspects discussed include various models of spatial diffusion (e.g. the gravity model and the cascade model), the S-curve model of the social diffusion of innovations, as well as processes such as standardization, colloquialization, and vernacularization. It is highlighted that all three dimensions of diffusion must always be kept in sight. This is illustrated by discussing the variable *-ing* vs *-in* as a standard example of what Labov (2001) calls a ‘stable sociolinguistic variable’.

10. Summary of Part II

This short chapter provides a summary of Part II of the book. It highlights the multidimensional contingency of conventionalized utterance types and suggests that the conventionality of utterance types is a function of onomasiological, semasiological, and syntagmatic conformity within a community depending on cotext and context. In addition, the chapter recapitulates how the conventionalization processes of usualization and diffusion contribute to establishing, sustaining, and adapting conventionalized utterance types. The diverse forms of interaction between the two processes control and modulate to what extent different parts of the linguistic system remain quite uniform and stable or are subject to linguistic variation and change.

Part III: Entrenchment

11. Understanding the process of entrenchment

This chapter deals with the cognitive process of entrenchment, beginning with a discussion of its psychological underpinnings in learning, memory consolidation, and automatization. Next, forces that effect entrenchment are introduced, among others frequency of repetition, embodiment, salience, and iconicity. These factors facilitate or impede entrenchment by virtue of their potential to influence the psychological processes behind it.

The final section of this chapter argues against the received view that routinization and schematization are two different entrenchment processes producing different effects: token routinization and type schematization. It is claimed that the two processes are just two sides of one coin and differ only with regard to the variability of what becomes routinized. Routiniza-

tion is always the key mechanism, while schematization comes to the fore to the extent to which what becomes routinized varies.

12. The routinization of syntagmatic associations

This chapter looks at the routinization of syntagmatic associations and their cooperation with paradigmatic associations. It begins by formulating the *syntagmatic-strengthening principle*, which states that as syntagmatic associations between sequentially arranged elements are strengthened by repetition, the symbolic, paradigmatic, and pragmatic associations of the whole sequence are strengthened, while those of the component parts are weakened. This principle explains effects such as the phraseological tendency, collocation, lexical and lexico-grammatical chunking, idiomatization, and the emergence of complex grammatical constructions on the individual level.

The remainder of the chapter deals with the whole range from small and simple (words, compounds) to large and complex utterance types (complex schematic constructions) in order to demonstrate that the routinization of syntagmatic and paradigmatic associations provides the foundation for two major principles of structure, i.e. linearity and opposition. A case study on individual differences demonstrates the effects of syntagmatic strengthening.

13. The routinization of symbolic associations

This chapter moves on to the routinization of symbolic associations, which, again in cooperation with paradigmatic associations, subserve the cognitive representation of lexical form-meaning and meaning-form links. It is shown that long-standing insights from cognitive semantics and lexicology, including the prototype structures of categories and the prominence of basic-level categories, derive from the routinization of symbolic associations as controlled by frequency of use, basic experiences, salience, and other factors. Two strengthening principles are formulated: *semasiological strengthening*, dealing with polysemy and prototype effects, and *onomasiological strengthening*, related to basic-level and synonym-preference and hyponym-preference effects. With regard to the context-dependence of meaning it is argued that symbolic associations are always influenced by syntagmatic and pragmatic associations reflecting combinatorial and contextual experience.

14. The routinization of pragmatic associations

In this chapter it is first argued that numerous linguistic phenomena located at the heart of grammar, e.g. deixis, reference, tense, aspect, modality, sentence mode, and intonation, have

their origin in the routinization of commonalities extracted from usage events. These commonalities are represented by more or less strongly entrenched pragmatic associations. Then it is claimed that implicatures and other inferential mechanisms such as metaphors, metonymies, irony, as well as connotations and style and register awareness are also based on the routinization of pragmatic associations. These claims are condensed in three pragmatic-strengthening principles: *situational pragmatic strengthening*, *inferential pragmatic strengthening*, and *pragmatic strengthening of situated meanings*. The fundamental role of pragmatic associations for shaping core grammar is emphasized.

15. Summary of Part III

By way of a summary of Part III, this chapter shows how the competitive routinization of the four types of associations brings about what we regard as the structure of language on the cognitive level. In the course of this, the important and pervasive role of paradigmatic associations and their routinization is discussed and three principles related to paradigmatic associations are postulated: the *paradigmatic strengthening principle*, the *paradigmatic extension principle*, and the *paradigmatic support principle*. In line with the feedback-loop idea which lies behind the EC-Model, it is argued that linguistic structure is derived from cognitive principles of statistical learning, processing, and representation, but can only serve as a means of communication if it is conventionalized in a speech community, which in turn influences what can become entrenched in the minds of individual speakers.

Part IV: Synopsis: The EC-Model as a complex-adaptive model

16. Summary of the EC-Model

Chapter 16 provides a brief summary of all components of the model: usage, conventionalization (usualization, diffusion), entrenchment (routinization), and the forces affecting these three components. It begins by listing the different types of motor, sensory, cognitive, and interpersonal activities involved in usage. Next, it shows how the six dimensions of conformity on the collective level of conventions are related to the four types of association of the cognitive level. Also listed are the three feedback-loop processes – usualization, diffusion, and routinization – and their main effects on conventionalization and entrenchment. The summary ends with a survey of forces acting upon usage, conventionalization, and entrenchment.

17. Persistence

Chapter 17 discusses how the Entrenchment-and-Conventionalization Model explains the persistence of linguistic structure. Persistence is regarded as an effect of frequent repetition of items with high similarity. An idealized scenario is developed which reflects how the different components can work together to keep certain parts of the linguistic system stable for a long time and comparatively uniform. It is stressed that persistence is not mere lack of change and variation, but particularly intense refreshment in usage, conventionalization, and entrenchment, generally driven by the repetition of highly conventionalized and entrenched utterance types. Forces such as economy, efficiency, solidarity, and power generally tend to support persistence.

18. Variation

This chapter discusses how the Entrenchment-and-Conventionalization Model explains language variation. It sifts the various contributions of the components of the model for elements that are conducive to onomasiological and semasiological structural variation, to situational, social, and regional variation, and to individual differences. Not only the conventionalization processes of usualization and diffusion, but also the entrenchment process of routinization make a strong contribution to the emergence and change of variation on all levels. Numerous forces promote variation, e.g. economy, extravagance, solidarity, prestige, mobility, and language contact. The dynamic, changeable nature of variation is emphasized and the various sources of this malleability are identified. It is also highlighted that the existence of individual differences is one of the central predictions of the EC-Model.

19. Change

This chapter discusses how the Entrenchment-and-Conventionalization Model explains language change. First, it is emphasized that not only innovation and variation, but also the frequency of repetition can serve as important triggers of change. Conventionalization and entrenchment processes can interact and be influenced by numerous forces in many ways, resulting in various small-scale processes of language change, which can stop, change direction, or even become reversed. This insight serves as a basis for the systematic description of nine basic modules of change which differ in the ways in which they are triggered and controlled by processes and forces. Large-scale pathways of change such as grammaticalization, lexicalization, pragmaticalization, context-induced change, or colloquialization and standardization are all explained by reference to these modules. The system is applied in a case study on the history of *do*-periphrasis.

20. Conclusion

Chapter 20 concludes the book. The distinguishing features of the EC-Model are highlighted, especially those that set it apart from the functionalist usage-based mainstream. An outlook on future work identifies weaknesses of the model that must be redressed and sketches some avenues for future research, e.g. by means of computer simulations. The final section returns to the questions what and where the linguistic system can be found and defines the linguistic system as a *multi-dimensional dynamic contingency space populated by multi-dimensionally competing co-semiotic potentialities afforded by the interaction of speakers' usage activities and social and cognitive processes under the influence of a wide range of forces.*