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Operační program Výzkum, vývoj a vzdělávání

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MINISTERSTVO ŠKOLSTVÍ,
MLÁDEŽE A TĚLOVÝCHOVY

The Entrenchment-and-Conventionalization Model

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1 WHAT IS THIS WORKSHOP ABOUT?

Examples:

- (1) Emma finds her boss a bit difficult.
- (2) Emma considers her boss a bit difficult.
- (3) Emma regards her boss a bit difficult.

Questions:

- What do the speakers of a language agree upon ('convention')?
- What do they know about language ('cognition')?
- How do they apply this when they talk to each other ('communication')?
- And: How does people's use of language affect the conventions they share and the knowledge they have individually?
- Plus: How do convention, cognition and communication work together to shape and sustain what we call *language*.

Preview:

1. Three prerequisites for language to work the way it does: people have to use a given language, they have to stick to its conventions (or at least use them as a basis for creativity) and they have to know these conventions.
2. What are the mechanisms that link convention, cognition and communication to create what we refer to as *language*? The Entrenchment-and-Conventionalization Model (Schmid 2020)
3. How does the interaction between convention, cognition and communication brings about what we call linguistic *structure*, i.e. the grammatical system of a language, as well as language change and variation?

Requirements:

How can language do what many regard as its main job, i.e. serve as a means of interpersonal communication?



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Three requirements:

- **Convention:** The speakers of the given language – jointly, as a group – have to agree on linguistic regularities that constitute the language.
- **Cognition:** Each individual speaker has to know these regularities and must be able to apply them.
- **Communication:** Speakers have to use the language to keep it alive and ‘working’.



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2 WHAT ARE LINGUISTIC CONVENTIONS?

2.1 What are conventions?

- shaking hands
- hand-kissing
- hat-raising
- hat-tipping
- salute
- folding hands and bowing (*wai*, Thailand)
- nose-pressing (Maori)
- hugging
- (hugging and) one kiss on the cheek
- (hugging and) two kisses, starting on the left cheek or the right cheek
- (hugging and) three kisses, starting on the left cheek or the right cheek
- fist bump (bro fist)
- elbow bump

Definition of the notion of convention:

A convention is a mutually known regularity of behaviour which the members of a community conform to because they mutually expect each other to conform to it and because it allows them to solve a coordination problem.

2.2 What are the characteristics of linguistic conventions?

1. Greetings have symbolic power
2. Greetings are triggered by and associated with specific contexts
3. The different forms and variants of greeting gestures stand in contrast to each other
4. In spite of the contrasts between them, greetings can be combined





→ Linguistic conventions are regular with regard to their *symbolic, contextual, combinatorial* and *contrastive* dimension. These four dimensions of regularities reflect four basic design principles of language: *meaning, context, combination* and *contrast*. Before I come back to these dimensions of regularity or design principles of language, I want to discuss four more characteristics shared by greetings and linguistic conventions.

5. Language is a means of solving a coordination problem
6. Greeting rituals are associated with and depend on communities, and so do linguistic conventions.
7. Both greeting rituals and linguistic conventions are subject to change.
8. Greeting gestures and most linguistic conventions are what de Saussure called “arbitrary”.

2.3 Dimensions and degrees of conventionality. What are linguistic regularities of behaviour like?

(2) *I hope you are well*

- The contextual dimension: we typically say this as an opener for a letter or an email addressed to a person we have not seen in a while.
- The combinatorial dimension: we tend to put it exactly this way, so there is a very strong sequential regularity.
- The contrastive dimension: we can choose similar conventional openers such as *long time no see* or *it's been a while* or *glad to be able to get back to you at last*.
- The symbolic dimension: the phrase carries a bundle of meanings: roughly, ‘I hope that you are in good health’ and ‘I care for your well-being’ and ‘I am a caring person’.



3 WHAT KEEPS LANGUAGE GOING?

3.1 The Tinguely machine

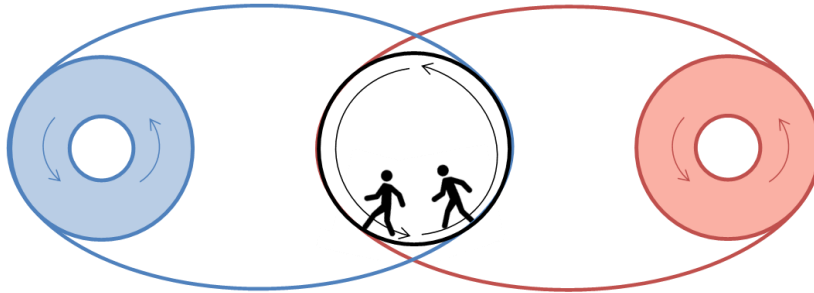


Figure 1: Simple Tinguely machine

This simple Tinguely machine is a valuable source of inspiration for answering the question at hand: How are the linguistic regularities of behaviour (i.e. conventions) in a speech community and linguistic associations (i.e. knowledge) in the minds of speakers matched and refreshed? As a first step, we allow the machine to be driven by people talking rather than walking (Figure 2).

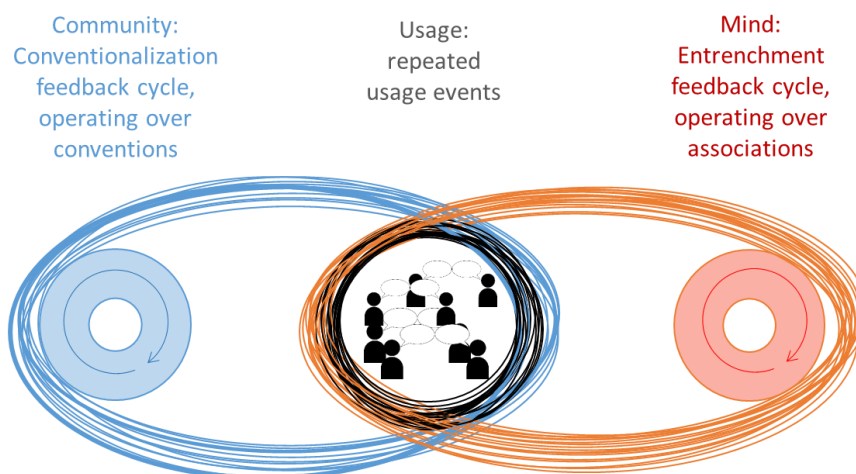


Figure 2: Simple Tinguely machine adapted to language

3.2 Playing around with the Tinguely machine

Six scenarios will unfold before you now, illustrating six different constellations of how usage, repetition, conventionalization and entrenchment cooperate and compete. In some



scenarios, conventionalization and entrenchment go in lockstep, in others they are out of sync. In some, a ‘normal’ combination of words turns into a fixed expression, in others this does not happen despite similar starting conditions. Some are veritable success stories of how new things become a part of language, while others fail to catch on. All of them are authentic stories. I hope you are sitting comfortably, as the curtain is rising.

- (1) *That’s one small step for (a) man, one giant leap for mankind.*
- (2) *Covfefe.*
- (3) “Therefore while thys onhappy sowle by the vycторыse pompys of her enmyes was goyng to be broughte into helle for the synne and onleful lustys of her body.” [‘Therefore, while this unhappy soul by the victorious procession of her enemies was going to be brought into hell for the sin and unlawful lusts of her body’.]
- (4) “For your safety and comfort, please remain seated with your seat belt fastened ...”
- (5) Evelyn: Have you looked in the garage for your slippers?
Arthur: No they, they must be there.

3.3 Summary

- How do the speakers of a language come to agree on conventions?
- How is the linguistic knowledge of individuals adapted to conventions?
- What role does the use of language play in this?





4 HOW IS LINGUISTIC KNOWLEDGE LEARNT AND REFRESHED?

4.1 Reminder: What happens when we use language?

- 1 Arthur *She looks thinner though.*
- 2 Evelyn *Oh she's a lot thinner but <pause dur="10"> She's smoking to get thin.*
- 3 *I think that's what Cathy used to do <pause> cos she used to get tubby, hasn't she?*
- 4 Arthur *Mm.*
- 5 Evelyn *And then she'd suddenly go thinner and I'm sure it was when she started smoking again.*
- 6 *<pause dur="8"> Have you looked in the garage for your slippers?*
- 7 Arthur *No they, they must be there, I w-- I know I went in there. <pause>*
- 8 Evelyn *Well are you ready for your ice cream <-/-> now?*
- 9 Arthur *<-/-> Went <-/- in to look for the seeds so I m- I might have changed, just gone <unclear> , I dunno.*
- 10 Evelyn *Are you ready for ice cream yet?*
- 11 Arthur *Yes you can do if you want to get rid of it.*
- 12 Evelyn *I don't want to get rid of it!*
- 13 Arthur *Well you know what I mean*
- 14 Evelyn *Yes.*
- 15 Arthur *get it over with.*



4.2 The entrenchment cycle: greedily tracking and absorbing regularity

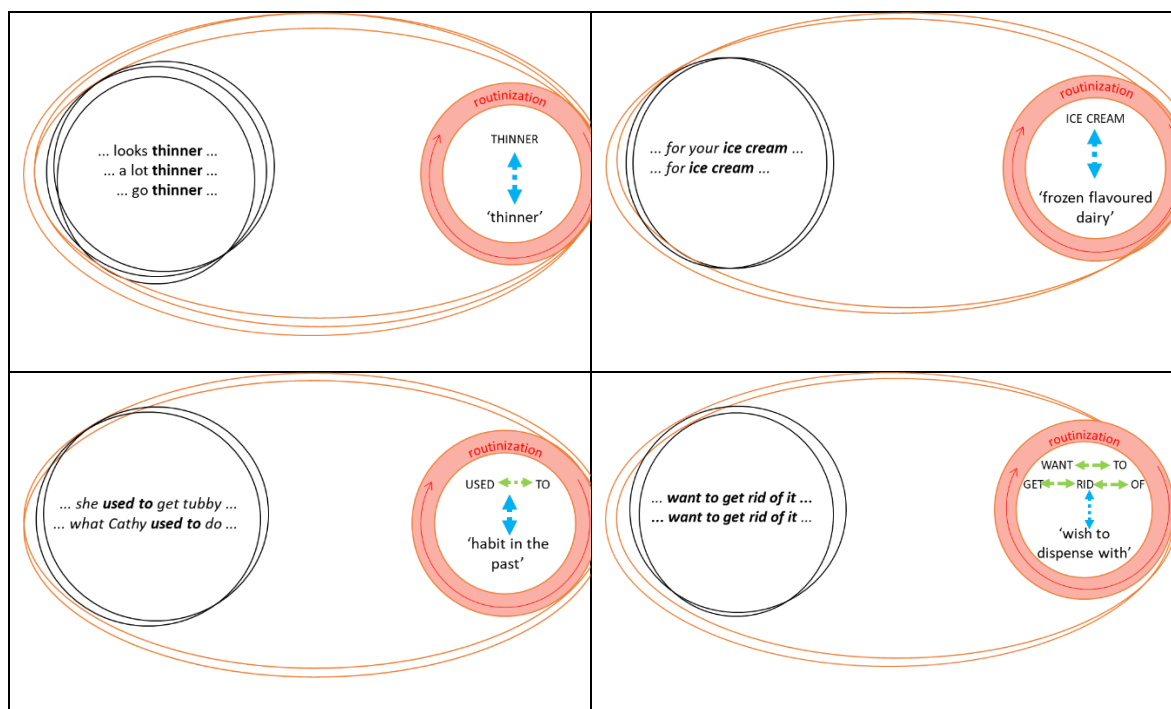


Figure 1: Routinization of exact repetitions

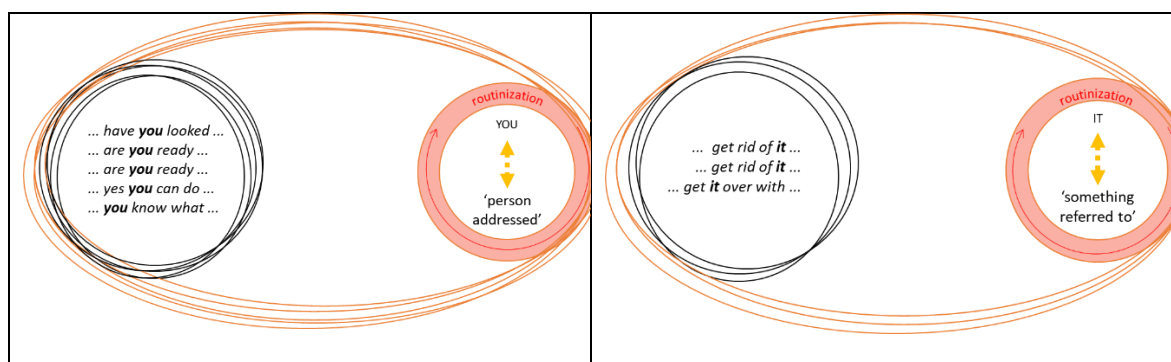


Figure 2: Routinization of same forms associated with different meanings

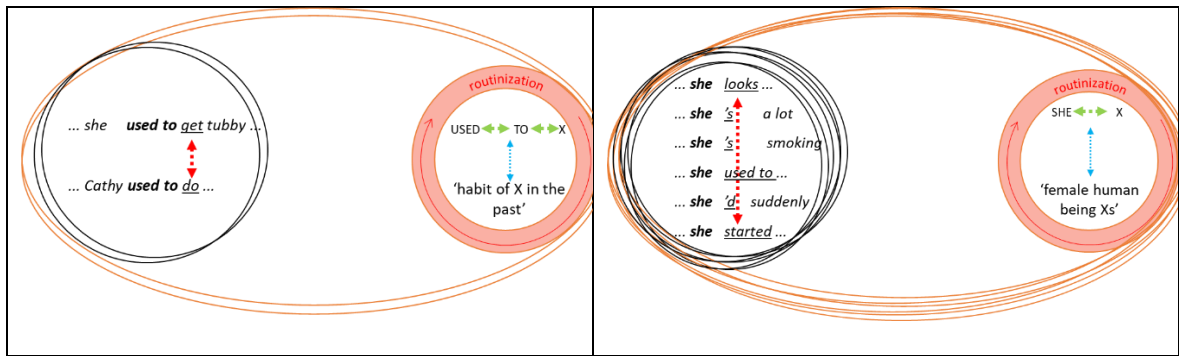


Figure 3: Routinization of partially identical sequences

What about *thinner ... slimmer ... skinnier*?

1. The network recognizes that all three words share the ending *-er*.
2. It realizes that the remaining parts of the three words, i.e. *thin*, *slim* and *skinny*, are also words and that they all describe qualities.
3. It detects an analogy: *thinner* is related to *thin* is the same way as *slimmer* is related to *slim* and *skinnier* is related to *skinny* (if we stick to pronunciation and ignore the spelling variants).
4. It recognizes that in all three instances, *-er* is associated with the meaning ‘more of the quality indicated by what *-er* is attached to’.
5. Based on these four insights, the associative system routinizes a mix of combinatorial, contrastive and symbolic associations representing the general regularity: ‘*-er* is added to a word denoting a quality to express that there is more of the quality indicated by this word’.

Other partly filled patterns:

looks, smiles, greets, drinks, ponders

→ V + s

looking, smiling, greeting, drinking, pondering

→ V + ing

unsure, uncertain, unfair, unusual, uneven

→ un + Adj





<i>doable, manageable, drinkable, affordable, acceptable</i>	→ V + able
<i>keep looking, keep smiling, keep greeting, keep drinking</i>	→ keep V + ing
<i>be keen on looking, be keen on smiling, be keen on greeting</i>	→ be keen on V + ing
<i>the girl, the horse, the table, the plan, the problem</i>	→ the + N
<i>of the girl, of the horse, of the table, of the plan, of the problem</i>	→ of the + N

4.3 Summary: How is linguistic knowledge learnt and refreshed?

- *Thinner, ice cream, used to, get rid of*: When identical forms carrying highly similar meanings are repeated, this contributes to the strengthening of symbolic associations linking the forms and meanings. This establishes and strengthens the representation of words and fixed sequences.
- *V-s (looks, smiles drinks), un-Adj (unsure, unfair, uncertain), keep V-ing (keep looking, keep smiling, keep running)*: When partly identical and partly variable forms with more or less similar meanings are repeated, this gives rise to partly variable patterns. These semi-variable patterns are afforded by routinized combinatorial, contrastive and symbolic associations.
- *Det – Adj – N (the mighty queen, the funny story), Subject – V – indirect Object – direct Object (John sent the parcel to his mother, Mary mailed a complaint to her boss)*: When purely relational similarities that are accompanied by more or less strong semantic similarity are detected and repeated, this gives rise to fully variable patterns that are no longer marked by formal similarities. Like semi-variable patterns, these variable patterns rely on the cooperation of combinatorial and contrastive associations, with symbolic associations coming into play depending how strongly meanings can be linked to patterns.
- Repetition can exclusively rely on similarities that are associated with context. This is handled by contextual associations linking forms and meanings to various aspects of situations including the roles of speakers and hearers (*I and you*); time (*now, then*), objects and places (*this, that, here, there*); topics, social characteristics of speakers,





social relations among participants and corresponding degrees of formality; connotations and frames; linguistic indirectness and understanding what is meant when it differs from what is said.



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5 HOW ARE LINGUISTIC CONVENTIONS ESTABLISHED AND SUSTAINED?

Speakers can only detect and routinize patterns in a language in the way just described if they are supplied with regularities of sufficient quality and quantity. Luckily enough, the conventions that make up a language are exactly that: regular. (Chapter 4 would be the place to go over this again, in case you are unsure what this means.) The regularity that is the hallmark of conventions cannot be established by one speaker alone. It emerges from the commonalities in the linguistic behaviour of the members of a speech community (whatever that really is). How do conventions emerge and how are they sustained? This is essentially what this chapter is all about.

5.1 Doug Engelbart and his mouse

... somebody noticed that sitting there I think with a little ear and a tail coming out this side [handling the device and pointing to the button and the cable] and said we could call it a *mouse*. But I wasn't the kind of person that, that ah, that made up the names for what we were gonna call it, just ooh, just a *gadget* [laughs], and ah, nobody can remember among all the people who were involved in that who first started calling it a *mouse*. But that name just stuck. [...] But it was quite a few years before the world wanted to start using it. (transcribed from <https://youtu.be/SQ7totFRh4g>)

5.2 From innovation to convention

Act of innovation

Repetition and routinization

Diffusion and usualization



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5.3 Existing conventions must be refreshed

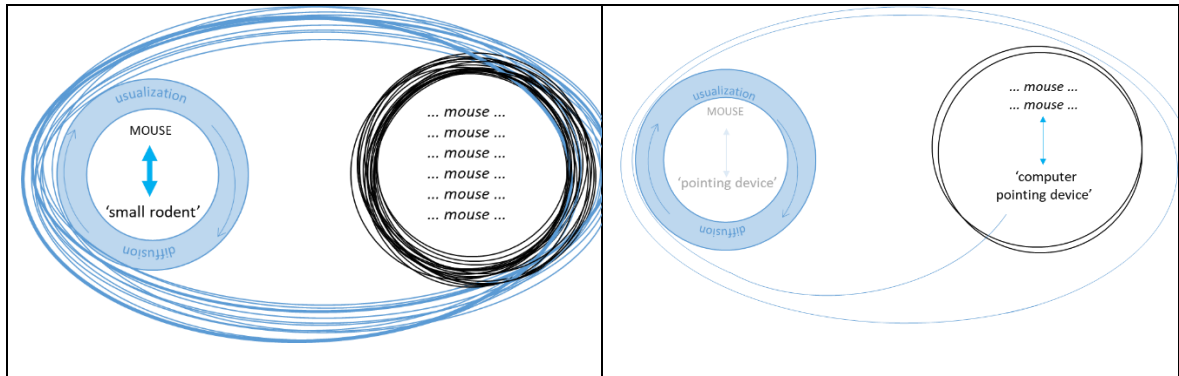


Figure 4: Conventionalization of existing conventions (left panel) and innovations (right panel)

5.4 Linguistic conventions as social norms and ‘types’

- Norms can be informal and implicit, or codified into explicit rules, regulations or even laws. In language, we find both types of norms.
- Norms, both social and linguistic, are created by regularities of behaviour and in turn governed them.
- Social and linguistic norms are circular in yet another sense already hinted at in Chapter 4. They are relative to social groups and at the same time indicative of them.
- Conventions and norms are *types* of behaviours, in a quite special, technical sense.



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