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Expanding the lexicon through formulaic patterns

The emergence of formulaicity in language history and modern language use

Abstract: The article aims to study the role of formulaic patterns in the expansion of the lexicon. The notion of formulaic patterns is explained in section 1. It suggests that the formulaic character of human communication overarches single words, polylexical units, sentences and texts. As use of free word combination, formulaic patterns are a constitutive part of human interaction and, therefore, also of lexicon expansion. Section 2 provides a brief sketch of research findings (mostly based on data from standard German) concerning the interaction of formulaic patterns and word-formation products, which have up till now been considered the main tool of lexicon expansion. Here the argument is made that with regard to the new understanding of formulaic patterns, their role in the lexicon expansion process can be revised. Section 3 provides examples of the analysis of the emergence of formulaic patterns in language history and modern language use as an additional tool of lexicon expansion. In contrast to word formation, this has been subject to relatively little investigation so far. In section 3, the analysis is carried out against the background of language change theories. Such "driving forces" of language change as variation / creative modification, regularity / irregularity, codification / normatisation, the role of cultural and contextual / discourse traditions and frequency are applied to the emergence of formulaic patterns. As will be shown, the usual criteria with which we are familiar from existing language (change) theories do not apply to formulaic patterns in the same way as they do for example, to sound change, grammatical or even lexical change. The results of the study are summarized in the concluding section 4. *

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1 The notion of formulaic patterns and their status in the lexicon

Speakers of any language generally enjoy considerable freedom in selecting lexical and grammatical items / tools of a given language in order to achieve their communicative goals most effectively. The success of a communicative act depends not only on the successful exploitation of a lexicon (good choice of individual words) and the correct application of grammatical rules, but also on an appropriate combination of words and rules with regard to the pragmatic and conventional aspects of a particular communicative situation. All forms of oral and written human interaction result from a large number of complex choices that Sinclair (1991: 109) described as "the open choice principle".

Nevertheless, Sinclair was also among the first scholars to empirically prove that although some word combinations, sentences and texts are the result of a complex choice based on linguistic freedom, others include "a large number of semi-preconstructed phrases that constitute single choices ("the idiom principle"), even though they might appear to be analysable into segments" (Sinclair 1991: 110). At the end of the 19th and the beginning of the 20th century, similar phenomena were recognized by Paul ([1880] 1995: 25), de Saussure ([1916] 1969: 177) and in Jespersen's concept of the "living grammar" (1968: 17–29). Corpus linguistics, usage-based approaches to language and cognitive sciences called attention to the fact that speakers' linguistic knowledge extends well beyond what can be described in terms of rules of compositional interpretation stated over combinations of single words. In the lexicon of a given language, preconstructed conventionalised items seem to be as productive as free word combinations.[1] This

1 To my knowledge, much research remains to be undertaken as regards the quantification of this proportion in many languages. According to Sinclair, "the open choice principle" is even dominated by the "the idiom principle". For English and German, first figures have been provided in favour of this observation, cf. an overview in Filatkina (forthcoming: 44–48). With regard to a random sample of words starting with the letter *f* in a COBILD dictionary project, Stubbs (2001: 80–81) notes: "One phenomenon, by its sheer frequency, shows the strength of phraseological tendencies across the most frequent words in the language. Suppose we take all 47 word-forms which begin with *f* in the sample. In 41 cases, the following easily recognizable combinations account for the collocation of node and top collocate. […] [NF: e.g.:] despite the *fact* that; *faded* away; *fair* enough […]. In the remaining six cases, collocates further down the lists occur in recognizable phrases, such as: natural *fabrics*; animal *feed*, *filing* cabinet […]. With many words, many more of the top 20 collocates are due to recognizable phrases. […] I can think of no

idea has just started to find its way into linguistic analysis of modern languages. Depending on the research perspective, the terms *phraseme* or *Phraseologismus* (Burger 2015), *lexical priming* (Hoye 2005), *idiomatische Prägung* (Feilke 1994), *formelhafte Sprache* (Stein 1995), *formulaic language* (Wray 2002), *usuelle Wortverbindungen* (Steyer 2013), *Sprachgebrauchsmuster* (Bubenhofer 2009) or *construction* (Fillmore, Kay, and O'Connor 1988; Goldberg 1995) have been used in order to address this observation.[2]

For any linguistic theory that is based on a view of language as a system of signs *(Systemlinguistik)* or a conglomerate of dynamic grammar rules recruiting a static lexicon into sentence generation *(Generative Grammar)* such items pose a problem because they cannot be clearly attributed to one particular linguistic domain within this system, e.g. to the lexicon. Even though these items are highly lexicalised and conventionalised signs, their function tends rather to be one between grammar, lexicon, syntax and discourse or, as Wray (2008) puts it, they push the boundaries between these domains. Consider example (1a):

(1) a. *to brush one's teeth*
b. **to wash one's teeth*
c. **to clean one's teeth*
d. French: *se laver les dents* lit. 'to wash the teeth'
German: *sich die Zähne putzen* lit. 'to clean the teeth'
Italian: *pulire i denti* lit. 'to clean the teeth'
Russian: *чистить зубы (čistit' zuby)* lit. 'to clean teeth'

The pattern (1a) can be used without any semantic difficulties for addressing a daily morning and evening sanitary activity, but is rather idiosyncratic with regard to the verb constituent: Examples (1b) and (1c) are formed with regard to the (same) rules of English grammar as (1a) and would therefore have to be regarded as correct. Their meaning will also be understood, but it would be confusing for a native speaker of English to hear them being used to name the same sanitary activity as (1a). The meaning in (1b) and (1c) is different from the meaning of example (1a). The explanation for this confusion lies in the fact that the preferred structure of this word combination in English favours the verb *to brush* and does

reason why a sample of words beginning with *f* might be untypical of the whole 1,000-word sample. We therefore have initial evidence that all of the most frequent lexical words in the vocabulary have a strong tendency to occur in well-attested phraseological units."

2 For a complete overview and the substantial differences between these approaches cf. Filatkina (forthcoming).

not allow for its substitution without a change of meaning. The preferred structure becomes particularly apparent if compared to other languages (1d) where the preferred structures include a different verb constituent.[3]

Other examples are not only stable in terms of their formal structure. With regard to their form, they are quite regular as they are formed according to the rules of German grammar. However, with regard to their meaning, they are irregular as their holistic meaning is not predictable from the literal meaning of their individual constituents, i.e. it is idiomatic, cf. the modern German example (2a). The substitution of any single constituent even by family-resembling lexemes as in (2b) would destroy the idiomatic meaning.

(2) a. *Perlen vor die Säue werfen*
lit. "to cast pearls before swine"
'to offer something valuable to someone who does not know its value'
b. **Diamanten vor die Schweine werfen*
lit. "to cast diamonds before pigs"

In order to use (2a) according to the linguistic conventions of modern German, one needs to know that with the preferred structure of this idiom *Das ist / wäre Perlen vor die Säue (geworfen / zu werfen)* lit. "it is / would be pearls (cast) before swine" one can comment on any type of useless action that a person executes and another one does not appreciate, but only in colloquial speech. Within the framework of traditional approaches, formulaic patterns with semantic irregularity such as (2) were considered rare "exceptions" mostly satisfying stylistic or aesthetic, not essential communicative needs. Consequently, they were not a central focus of theoretical linguistic studies.

An extensive attempt to grasp the complex nature of such utterances was undertaken within the framework of phraseology. The complexity was already reflected in the defining criteria of phrasemes. According to Burger (2015), phrasemes are polylexical items that must consist of at least two constituents, have a more or less stable form in which they are frequently reproduced by speakers and can be idiomatic in meaning. Research traditionally focused mainly on one type of polylexical word combination, namely idioms such as in (2) or English *spill the beans* or *break the ice*, because they were considered to be at the centre of the phraseological system. But as usage-based approaches show, the formulaic

3 Though language contact plays a role in lexicon expansion with the help of formulaic patterns, for reasons of space, it cannot be touched upon in this article. The methodological and theoretical importance of a contrastive perspective at such a core level as determining what is formulaic in a historical text is briefly pointed out in footnote 17.

character of human communication reaches far beyond the items that can meet the criteria of phrasemes. It extends beyond single word conventionalised structures such as routine formulae *and?*, *congratulations!*, *truly (speaking)*, adverbial / prepositional constructions like *nonwithstanding* or text markers such as Middle High German *firnim* 'remember, memorize, pay attention' on the one hand and formulaic text genres such as contracts, business correspondence, newsletters, recipes, announcements etc. on the other. The texts are formulaic because they can be produced and understood correctly only if they follow the conventionalised traditions of their formulaic matrix. Further examples of frequently used patterns that have largely been excluded from the scope of research into phraseology are listed in (3):

(3) a. German: *allen Grund (haben), allen X zum Trotz, allen Ernstes, auch immer, nicht zuletzt*
lit. "(to have) all the reason, in spite of all X, quite seriously, also always, not least"
(Steyer 2013: 239–287)

b. English: *you take, a little bit, one X after another, NP or something*
(Langacker 1987: 35–36)

Moreover, the criteria established for phrasemes on the basis of modern languages turn out to be static and therefore not applicable to the study of the diachronic dynamics of formulaic patterns. Polylexicality appears to be problematic from the outset because of the general lack of any (mandatory) spelling norms in the language history. As will be shown in section 3, stability is the exception rather than the rule in historical language use, frequency cannot be employed due to the fragmentary character of historical textual heritage (among other more substantial restraints), and idiomaticity often poses problems resulting from the temporal and cultural distance between today's researcher and the text under investigation.

This is why in Filatkina (forthcoming) typologically heterogeneous units (1–3), single words and whole texts are described as *formulaic patterns* in a wider sense. I will use this term in the following article although it is not yet well-established within linguistic research. Based on the analysis of an extensive data set from Old German, the following definition of formulaic patterns is proposed:

> Formelhaft sind im weitesten Sinn:
> a) Einwortausdrücke, typologisch heterogene Kombinationen aus mehreren Konstituenten bzw. ganze Sätze und / oder Texte,
> b) die holistisch verstanden werden müssen,
> c) sich auf unterschiedlichen (auch noch nicht abgeschlossenen) Stadien der formalen, semantischen und funktionalen Konventionalisierung befinden können,

aber eine stabile zugrundeliegende syntaktische und / oder kognitive Struktur aufweisen,

d) auf Gebrauchskonventionen einer Sprachgemeinschaft beruhen, deren etablierte kulturelle (auch kommunikative) Erfahrungen und Wissensbestände sie tradieren, und

e) die sich durch eine starke Funktionalisierung im Kommunikationsprozess bzw. im Textaufbau auszeichnen können (Filatkina forthcoming: 2–3 and 151–156).

[Formulaic patterns in the broadest sense are:

a) single words, typologically heterogeneous combinations of words, sentences and / or texts

b) that must be understood holistically,

c) can show varying degrees of conventionalisation (ranging from high to low) with regard to their form, meaning and functions, but have a stable underlying syntactic and / or cognitive structure,

d) are based on and reflect the cultural and communicative traditions of the society they are used in, and

e) which can be characterised by a considerable degree of functionalisation in the production and reception of a particular act of oral communication, written text (genre) or discourse (translation: NF)].

Formulaic patterns provide evidence for the necessity of understanding language as a continuum of different linguistic and extra-linguistic domains that have to be described in their entirety. Current usage-based linguistic theories systematically develop the notion of a language as an entirety. Within the paradigm of *Construction Grammar*, for example, formulaic patterns have played a central role from the very beginning (Langacker 1987; Fillmore, Kay, and O'Connor 1988; Goldberg 1995). In fact, it was the inability of other (particularly formal) language theories to describe "exceptions", i.e. formulaic utterances as in (1–3), that led to the establishment of Construction Grammar. One of its major principles is the assumption that a human language consists of signs representing conventionalised form / meaning correspondences that are not strictly predictable from the properties of their component parts or from other constructions. The term *construction* is generally applied to generalisations over typologically very different language instances, regular and irregular, ranging from morphemes and compounds (*door frame* or *lighthouse*) to idioms (*spill the beans*) and degree modifiers (*sort of / kind of*) to abstract constructions such as caused-motion, ditransitive or resultative constructions. They differ with regard to their cognitive representations (from concrete utterances on the language surface to abstract cognitive schemas) but all tend to have a more or less restricted structure that has a certain meaning as

well as different lexical slots whose specification can vary depending on the context. All these extremely heterogeneous constructions stand on equal footing in building the basis for human communication and understanding processes, without being ascribed exclusively to core grammar or to the lexicon. The difference between the terms *formulaic patterns* and *constructions* is twofold: the former does not include morphemes but extends its scope to formulaic texts and discourse; the latter prototypically does not include texts (cf. a different approach in Östman 2005), but incorporates morphemes.

The usage-based perspective changes the status of formulaic patterns from peripheral (stylistic or aesthetic) "exceptions" to central means of human interaction. Consequently, it also sheds fresh light on their role as tools of lexicon expansion. Referring to features c), d) and e) from the above definition of formulaic patterns, this point will be made in section 3 and applied to the emergence of formulaic patterns in language history and modern language use.

2 Formulaic patterns, word formation, and lexicon expansion

With regard to their function as a means of lexicon expansion, polylexical word combinations were already studied in early research on phraseology. The term *formulaic pattern* was not used in this paradigm. As noted above, research traditionally focused mainly on idioms. Their contribution to the expansion of the lexicon was compared to that of word-formation products (Fleischer 1992; Barz 2005; Stein 2012). At least for German, there is a vast amount of literature dedicated to this topic.[4] But with a focus on idioms, phraseology was treated as the rarest and least significant path (Barz 2005: 1673; Barz 2007: 30; Stein 2012: 228). Taking into consideration the pivotal role of formulaic patterns in the communication process (cf. section 1), such a conclusion cannot be sustained. The "old" field is opening up for new discussions guided by the assumption that artificial boundaries between single words and formulaic patterns might be a misleading perspective.[5]

4 In addition to the above-mentioned work of W. Fleischer cf. Hartmann (1998), Barz (2005, 2007) and Stein (2012).

5 In its turn, research on word-formation has traditionally pursued the idea that the development of new words is formulaic in nature as it generally functions according to specific patterns, e.g. certain productive types of derivation, composition and conversion that may differ in their productivity from language to language. For new insights cf. Arndt-Lappe (2015).

In the traditional research, attention was drawn to the many similarities or "the fuzziness" of the boundaries between compounds and idioms. These were explained by a number of facts. In addition to the shared "naming" function, both tools of lexicon expansion can be products of idiomatisation, e.g. (4):

(4) German: *ein großes Tier*
lit. "a big animal"
'an important and influential person'
German: *Grünschnabel*
lit. "green beak"
'a young, inexperienced but often cheeky person'

Consequently, compounds and idioms undergo similar lexicalisation processes with metaphorisation and metonymisation being the most productive. With regard to idiomatisation, compounds and idioms were proclaimed complex lexical signs whose meaning is not derivable from the meaning of their constituents.

It was also pointed out in previous research that sharing the referential function of naming means competition between phrasemes and word-formation products in some cases and complementarity in others (Barz 2007: 27–29). The cases of competition include the coexistence of a phraseme and a word-formation product that both use the same lexical constituents, e.g. idiom (4) *ein großes Tier* 'an important and influential person' versus compound *Großtier* 'a big animal'. Strictly speaking, such utterances do not compete as they differ semantically. Examples of semantically similar utterances can be found as well, cf. German *stark wie ein Bär sein* versus *bärenstark*, *Schwarzer Markt* versus *Schwarzmarkt*. However, they do not seem to be widespread. In cases of complementarity, a word-formation, e.g. *Grünschnabel* (4), does not have an immediate equivalent among phrasemes and vice versa. Due to the fact that the communicative needs of the speakers are met either by a word-formation product or by a phraseme, the simultaneous existence of both appears to be unnecessary. Again, the focus on idioms led previous research to the conclusion that polylexical utterances are particularly productive in negatively connotated target domains such as HUMAN MISBEHAVIOUR (deception), CHARACTER (stupidity), STATE (drunkenness) or INTERPERSONAL RELATIONS (reprehension) (Fleischer 1992, 1996, 1997). Although this seems to be true for idioms, a different understanding of formulaic patterns sheds fresh light on this research question as well. Recent studies that employ the concept of Construction Grammar demonstrate that in the process of name creation lexicalised phrases, e.g. A + N phrases *rote Karte* 'red card', may function as names just as A + N compounds (*Freikarte* 'free ticket') do. The choice between these two forms is governed by the principle of analogy: It is largely dependent on the availability of similar constructions in the mental lexicon of the speakers (Schlücker

and Plag 2011: 1539).[6] Lexicalised phrases and compounds are equally productive constructions that make distinctions between lexicon (compounds) and syntax (phrases) irrelevant for language users.

Another well investigated area of the "joint action" of phrasemes and word-formation as tools of lexicon expansion is the use of phrasemes as a basis for the creation of new words. In Germanic linguistics, the phenomenon has been addressed as *dephrasemische / dephraseologische Wortbildung* (Fleischer 1992; Stein 2012: 231–233). It is illustrated in (5a) by means of an example from modern German. Interestingly, even irregular constituents as in German *Fettnäpfchen* "little pot of fat" in (5b) take part in lexicon expansion. The constituent is irregular because it is obsolete and opaque with regard to the underlying cultural knowledge (an old custom in traditional farmhouses of placing a small pot to collect fat near the stove, cf. Röhrich 2004) for the majority of the native speakers of German. In dictionaries of modern German (duden.de; dwds.de), it is noted as bound to this idiom. However, according to the corpus analysis in Stumpf (2015a: 497), the actual boundness of the constituent to the idiom does not exceed 66%.[7] This means that in the remaining 34% of all contexts studied in (Stumpf 2015a) *Fettnäpfchen* also occurs in isolation; its meaning, then, is the same as its correspondent meaning in the idiom. Thus, the possibility of re-motivating the compound synchronically without linking it to the underlying cultural knowledge opens up this irregular constituent for "free usage" in the lexicon.

(5) a. *Haare spalten* > *Haarspalterei*
lit. "to split hairs" > "hair splitting"
'to be excessively precise, pedantic'

b. *bei jemandem ins Fettnäpfchen treten* > *Fettnäpfchen*
lit. "to step in in a little pot of fat" > "little pot of fat"
'to drop a clanger'

6 More precisely, Schlücker and Plag (2011: 1539) note: "The larger the number of lexicalized compounds with the same adjective or noun, the higher the probability of the subjects choosing a compound. The larger the number of lexicalized phrases with the same adjective or noun, the higher the probability of the subjects choosing a phrase."

7 For further examples see also the contribution by Stumpf 2017. The role of irregularity in the development of formulaic patterns will be studied in section 3.2.

3 The emergence of formulaic patterns and the principles of language change

An alternative approach to the comparison of word-formation products and formulaic patterns which can help to answer the question of the nature of lexicon expansion is the analysis of the dynamics of the emergence of formulaic patterns in language history and modern language use. In particular, studying diachronic processes of the emergence of what is considered formulaic in modern languages can provide the necessary insights. However, at the present stage of international research, for the majority of languages, the implementation of this approach faces methodological difficulties, a theoretical vacuum and most importantly the lack of empirical data (Filatkina 2012, 2013, forthcoming). Since its establishment in the 19th century, historical linguistics has focused strongly on the analysis of the "open choice principle" and on the description of various but single and isolated linguistic domains such as phonetics, grammar or the lexicon. The historical roots of the other basis of human communication, "the idiom principle", remain without exception a fundamental research question for all languages. The diachronic study of the emergence of formulaic patterns is often neglected entirely, even in publications claiming the status of reference works on language change (for a detailed overview cf. Filatkina, forthcoming). However, the research conducted for Old German (Filatkina 2009, 2012, forthcoming)[8] shows that analysing formulaic patterns can cast new light on the existing language (change) theories and the understanding of lexicon expansion. The main point is that the accepted criteria with which we are familiar from existing theories do not apply to formulaic patterns in the same way as, for example, to sound change, grammatical or even lexical change. Such criteria as variation / creative modification, regularity / irregularity, codification / normatisation as well as the role of cultural and textual / discourse traditions and frequency of use are the subject of discussion in the present section.

8 One possible methodology to detect and extract novel formulaic patterns from modern oral and written texts is shown in Schreiber, Mahlow, and Juska-Bacher (2012).

3.1 Formulaic patterns and the role of variation / creative modification

In any natural language, even pre-constructed formulaic patterns are never absolutely stable and unchangeable, cf. feature c) in the definition of formulaic patterns in section 1. This point has already been made by classical research on phraseology and has led to a shift of paradigms (Burger 2015). Although in the collocation *to brush one's teeth* verb substitution is not allowed, as shown in (1), different types of grammatical and lexical variation do not violate conventional usage: *to brush my teeth, to brush and polish one's teeth, the teeth were brushed, to brush the front teeth*. One of the major achievements of phraseological research in recent years is the understanding that even highly idiomatic units, such as German *Perlen vor die Säue werfen* (2), are not as fixed as has previously been thought. On the other hand, as was pointed out in section 1, computer linguistics, cognitive sciences and most recently Construction Grammar suggest that free entities of a language are not so free but rather pre-constructed. Thus, in any modern language, variation does not contradict but faithfully accompanies formulaicity.

The diachronic investigation of formulaic patterns also supports the view that such patterns are less characterised by syntactic fixedness than has often been assumed. At the historical stages of the language, we see that fixedness or stability can only be attributed to a basic structure underlying a formulaic pattern. As a whole, this pattern possesses a certain meaning, pragmatic function and structure, but both the filling of its lexical slots and grammatical elements are only in the process of being formed. The patterns that might be considered formulaic in a certain language at the current point in time are always products of a process of change, which is inherently enabled by variation – the most natural form of existence of any actively used language and the driving force of any change.[9] As shown in Filatkina (2013), formulaic patterns undergo diachronic changes at all levels: structure, semantics, pragmatics, ways of syntactic contextualisation, distribution in texts, stylistic connotations, frequency of use, degree of familiarity, cultural image component and so on. The idiom *Perlen vor die Säue werfen* (2), for example, occurs 33 times in German texts from the 9th to 16th century (cf. the corpus description in Filatkina, forthcoming). Each time, however, it has a different structure and syntactic contextualization, and moreover it also reveals a semantic change from a very narrow meaning (which can only be found in reli-

9 For English, cf. Corrigan, Moravcsik, Ouali, and Wheatley (2009: XVI).

gious contexts) to a much broader one. As regards the pragmatic level, the function of the idiom changes from 'didactic' to 'commentarial', in terms of the stylistic connotation the noble expression of Biblical origin turns into a rather colloquial one. The restriction to religious texts becomes obsolete from the 15th century onwards.

Historical formulaic patterns show a high degree of variation and allow for the conclusion that a pattern becomes formulaic through a complex process of change that takes place in different linguistic domains. It has to be noted though that the changes in one domain (e.g. meaning) do not always cause *immediate* changes in another domain (e.g. form); more common are cases of delayed feature-by-feature change and form / meaning / function-mismatch.[10] This means that only a detailed diachronic analysis of variation processes in all linguistic subsystems and of every single finding can lead to empirically valid generalisations about the paths of formulaicity.

However, the assumption that formulaic patterns emerge as the result of a decline in variation should be reconsidered. Though the pivotal role of the decline in variation has been most clearly demonstrated for orthographical (Kohrt 1998), phonetic (Kohrt 1998) and morphological (Werner 1998) norms, it does not appear to be relevant to formulaic patterns. On the contrary, variation can be an indication of the completion of a conventionalisation process and the establishment of a new utterance: Only after a pattern has reached a high degree of fixedness and conventionalisation, can it become subject to variation and / or modification by language speakers and still remain recognisable and understandable for them. In this sense, variation and to an extent modification are secondary paths of lexicon expansion (cf. example 6a below).

Synchronic mechanisms of variation and / or modification have been studied in detail within the framework of phraseology, particularly using data from standard English(es), German, Russian, French, Italian and Spanish.[11] Despite the numerous studies, no theoretically liable distinction between variation and modification has been proposed so far. The former is generally understood as a regular formal change of a pattern licensed by the norms of a given language, cf. the examples at the beginning of section 3.1. As it has to occur frequently, the varied structure of a pattern might even form a new lexicon entry. In contrast, modification is defined as an irregular, intentional and conscious intervention of

10 Cf. Traugott (2014: 8–10) for the diachronic path of the *be going to*-construction.

11 For reasons of space, only a small selection of scholarly work can be given here: Sabban (1998); Langlotz (2006); Dobrovol'skij and Piirainen (2009); Dobrovol'skij (2013), and Burger (2015).

a speaker into the form and / or meaning of a pattern directed at the violation of the existing norms.[12] This intervention is understood as occasional; therefore, it allows for unexpected semantic-pragmatic effects on the part of the hearer and is used creatively as a useful tool for wordplay, e.g. in mass media headlines, fiction or commercials. Due to their occasional character, modifications have been excluded from the pool of means of lexicon expansion. However, Dobrovol'skij and Piirainen (2009: 102–114) show that this is not justified: Playful modifications of existing idioms (6a) or the usage of playful image components for the creation of novel idioms (6b) may become conventionalised and enter the lexicon (see also the contributions by Moulin and Winter-Froemel, this volume).

(6) a. *fix und foxi* modified from *fix und fertig*
lit. "fixed and foxi" / "fixed and done"
'to be extremely tired and exhausted'
b. *blau sein wie ein Veilchen*
lit. "to be blue as a violet"
'to be completely drunk'

Though such cases seem to be rather rare, at least in standard German, they resort to a number of various techniques (violation of grammar rules, semantic, syntactic or lexical incompatibility, deconstruction of image consistency through blending, to name just a few) and are (partially) registered in German dictionaries. Dobrovol'skij and Piirainen (2009: 102–114) address such examples with the term *usualisiertes Wortspiel mit Phrasemen* (conventional wordplay with phrasemes). Unfortunately, however, lesser-used languages, oral communication and dialects (Piirainen 1995) continue to be underrepresented in or completely excluded from this research. As they have not undergone normatisation, their contribution to the theoretical distinction between variation and modification appears to be particularly promising. The same holds true for the historical stages of any modern language (cf. example 8 below).

To my knowledge, such cases have not yet been considered within the framework of Construction Grammar. According to this approach, creativity in language arises exclusively from the *free* combination of constructions, subject to there being no conflicts entailed in that combination (Goldberg 2003: 221–222). Variation, on the other hand, is an intrinsic feature of constructions. It is governed by the principles of inheritance, analogy and family resemblance, meaning semantic or phonological similarity between novel and existing forms, relational

12 In my view, this definition comes close to what is understood as wordplay in respective studies (Winter-Froemel 2016).

knowledge and structural alignment. The conflict between these principles should allow for creativity, but this point has yet to be made clear. Bybee (2010: 58) uses the above-mentioned principles for a fine-grained analysis of the variation potential of the construction *it drives me* $X_{adj.}$, but does not discuss a novel utterance *it drives me happy* as a possible creative modification (a construct?) in certain contexts. In her eyes, it is just unlikely because – due to analogy and the family resemblance principle – the *drives*-construction goes with adjectives and phrases indicating madness or insanity. Much research has still to be undertaken into the micro-steps of variation and particularly creative modifications in order to satisfy the far-reaching claim of Construction Grammar as it is formulated in Goldberg (2003: 219):

> Constructionist approaches aim to account for the full range of facts about language, without assuming that a particular subset of the data is part of a privileged 'core'. Researchers in this field argue that unusual constructions shed light on more general issues, and can illuminate what is required for a complete account of language.

3.2 Formulaic patterns and the role of regularity / irregularity

The explanation of the development of formulaic patterns and their variation simply as a case of regularity and analogy would be an oversimplification of the actual state of affairs. Norm conflicts and preservation of lexical and / or grammatical constituents that have to be regarded as obsolete from the point of view of free language use are widespread phenomena in the formation of formulaic patterns. A corpus-based attempt to prove the high degree of irregularity (in terms of norm conflicts and / or preservation of obsolete lexical / grammatical constituents) in the emergence of formulaic patterns is undertaken in Stumpf (2015a, 2015b). In Stumpf (2015b), the novel construction of modern German (7) is analysed:

(7) *können* + $NP(X_{subject}\ Y_{objectAcc})$
'X is capable of doing / achieving / implementing Y'
e.g. *Kann Jogi Weltmeister?*
lit. "Can Jogi [become] world champion?"
'Can the German national football team under the coach Joachim Löw (Jogi) win the title of world champion?'
Ägypten kann Demokratie.
lit. "Egypt can [have / introduce / live in] democracy"
(Stumpf 2015b)

The formulaic pattern (7) does not occur in this form and meaning before the 21st century and is viewed critically by some native speakers as bad German. This is due to the fact that the conventionalisation process is marked by the violation of two grammatical rules (Stumpf 2015b: 16): a) *können* is an auxiliary verb and prototypically requires a full verb at the end of the construction and b) an (indefinite) article is a compulsory determiner of an object in the accusative in prototypical referential contexts. Neither of these rules is followed in (7). In spite of this, the formulaic pattern currently serves as a basis for numerous occurrences predominantly in situations of oral communicative immediacy where it can be regarded as stylistically neutral. As the corpus data presented in Stumpf (2015b: 10–11) indicates, the pattern is also used in headlines and in the body of mass media articles as an expressive colloquial marker enabling the speakers to convey a complex meaning (cf. the paraphrase in 7) with the help of a rather short form. This is why the pattern differs from similar constructions, e.g. *Olivia kann Mathematik* "Olivia can maths" 'Olivia is good at maths' or *Jeder kann Gitarre [spielen]* "anyone can [play] the guitar" 'anyone knows how to play the guitar' with a much narrower meaning and neutral stylistic connotations. The colloquial expressive connotation prevents the pattern from entering all text genres: At present, it cannot be found in formal fiction, for instance, or academic language. The occupation of the lexical slot *Y* seems to be barely determined at all semantically and / or by family resemblance. Instead, it is occupied by heterogeneous nouns from different semantic fields (profession, title, product, food, occupation, venture, (music) instrument, country etc.) that can be reinterpreted within the pattern (product > production of the product; instrument > ability to play it). *X* cannot be a passive non-animate creature, but any active agent (an individual, a group of individuals, a city, a party, a country, a continent etc.) is licensed by the construction. The holistic meaning of the pattern can be decoded only if the whole context of use is accounted for and included in the interpretation. The uncertainty of native speakers with regard to the "correctness" of the pattern should be interpreted as an indicator of its novel character. The expressiveness achieved by an irregular form leads to (domain specific) frequency, not vice versa.[13]

13 The role of the cultural context, discourse traditions and frequency is studied in more detail in section 3.4.

3.3 Formulaic patterns and the role of codification / normatisation

The decline of variation in the process of arising phonetic, morphological and orthographical conventions in language use has often been attributed to the normative influence of dictionaries and grammar books. This is where the decline predominantly took place as the lack of variation was treated as a necessary characteristic of language norms in historical times. With regard to formulaic patterns, this does not hold true as dictionaries, historical collections of proverbs and idioms as well as chapters dedicated to formulaic patterns in early grammar treaties were and have been compiled with goals rather different from a prescriptive establishment of norms (Hundt 2000; Filatkina 2016; Moulin 2016). Therefore, older texts and collections differ substantially with regard to the formulaic patterns they include. Consider example (8):

(8) a. modern German: *etwas auf dem Kerbholz haben*
lit. "to have something on a tally"
'to have done something wrong, to have committed a criminal action'
b. Early New High German (16th century): *an ain kerbholtz reden*
lit. "to speak to a tally"
'1. to lie in order to make financial debts; 2. to make financial debts'
c. *hab oft an ain kerb geredt*
lit. "[I] have often spoken to a tally"
d. *der vil verhaißt an ain kerbholtz*
lit. "[somebody] who promises a lot to a tally"
e. *ich schneid oft an ain kerbholtz an*
lit. "I often make a cut into a tally"
f. *(er) schrieb mirs an die kerb*
lit. "(he) wrote it in the tallies"
g. *so an den kerben zaichnet was*
lit. "as it was written on the tallies"
h. *der mich auch an das kerbholtz redt*
lit. "[somebody] who puts me on the tally as well by speaking"
i. *kerbredner werden*
lit. "to become a tally speaker"

In the corpus studied in Filatkina (forthcoming), before 1600, the idiom (8a), which is used in modern German despite the obsolete and therefore irregular constituent *Kerbholz* "tally", occurs in only one text, namely in the "Schelmenzunfft" by Thomas Murner. There, it has a different form and meaning (8b) strongly rooted in the underlying image component – an ancient system of precise counting (Wander [1987] 2001, 2: 1243–1244; Röhrich 2004, 3: 831). Until the 17th century, the system was used in bookkeeping and debt registration when landlords

carved debts in a tally, called *Kerbholtz* in German. In only 38 lines of the chapter, the pattern appears eight times, each time with the same meaning but in a different form (8b–i): in the past tense (8c), with different verb constituents (8d–g), in the passive (8g), the noun compound can be reduced to *kerb* (8f) and put into the plural (8g). The whole idiom can be nominalized and serves as a basis for a new compound (8i). In the period between the 15th and 18th centuries, not a single contemporary dictionary of Old German contains this idiom. The first entries can be found only 300 years after the oldest known printing of the "Schelmenzunfft" in 19th century collections of proverbs (Eiselein 1840; Körte [1837] 1974). In striking contrast, they list the idiom with verbal constituents that match neither the present-day nor the historical usage in Murner's text, cf. the examples in (9):

(9) a. *aufs kerbholz losleben*
lit. "to live to the tally"
b. *aufs kerbholtz lossündigen*
lit. "to sin to the tally"
c. *auf dem kerbholtz stehen*
lit. "to stand on the tally"
d. *aufs kerbholtz borgen*
lit. "to borrow on the tally"
e. *aufs kerbholtz nehmen*
lit. "to take on the tally"
f. *einem etwas aufs Kerbholtz schneiden*
lit. "to notch something onto someone's tally"
g. *einem etwas aufs Kerbholtz schreiben*
lit. "to write something on someone's tally"

Nowadays, one cannot judge in what sense these patterns served as earlier variants (or modifications?) of the idiom (8b) as historical texts known to date provide no evidence of their existence.

3.4 The role of culture, text / discourse traditions, and frequency

The analysis of processes of lexicon expansion by means of the emerging formulaic patterns will be insufficient if the major role of culture is disregarded. Particularly idioms (*to cast pearls before swine*, cf. example (2)) and proverbs (*clothes make the man*) are strongly embedded in culture as they preserve the different types of knowledge of past times in a modern language. This idea corresponds to feature d) in the definition of formulaic patterns in section 1. Different types of knowledge may be culture-specific and are almost always culture-based. The

most extensive research dedicated to the classification of cultural phenomena in idioms of modern language varieties was conducted within the project "Widespread Idioms in Europe and Beyond (WI)" (Piirainen 2012, 2016). It had access to 78 modern standard and lesser-used languages from all language families as well as dialects and identified 470 idioms as similar and widely known. A similarly large-scale project devoted to historical languages of the mediaeval and early modern world does not currently exist and would not be possible as scholarly research is completely lacking in such data (cf. an overview in Filatkina, forthcoming).

Two results of the WI-project are of particular importance. Firstly, earlier ideas that the same genetic affiliation of two or more languages could explain a similarity on the level of idioms have been disproven. These ideas disregard the fact that the origin of the majority of idioms does not go back to a common "protolanguage" of an early past. As becomes obvious, distribution crosses genetic boundaries. Secondly, the concept of a "common (European) cultural heritage", which was also often used to explain similarities in earlier works, requires more detailed investigation. Until now, cultural traditions from Classical Antiquity, Christianity (the Bible), the Renaissance, Humanism, and the Enlightenment are included in this term. Though the role of these domains remains central, other cultural domains such as folk narratives, jests and legends appear to be significant as well. They have produced numerous widespread idioms (*to fight like cat and dog*, *to shed crocodile tears*) and have not yet been listed under the concept of "common (European) cultural heritage". Today's convergence of idioms is the product of an intense exchange of thoughts among educated language users that could only have been based on writing and reading books in historical times. This shared knowledge of widely disseminated texts led to and supported the establishment of cultural memory and many formulaic patterns such as idioms and proverbs. The WI-project describes this phenomenon using the term *intertextuality* and calls for its precise validation in individual languages (Dobrovol'skij and Piirainen 2005; Piirainen 2012: 520).

Cognitive linguistics acknowledges cultural models of human experience, social interaction and embodied experience as important factors in the cognitive categorisation of the world. However, research has tended to repeatedly emphasise the embodied experience. What cognitive research has been lacking to date is a diachronic perspective on the dynamics of the cultural components used in

formulaic patterns as, to my knowledge, there are no monograph-length historical studies.[14] Within the framework of the Cognitive Theory of Conventional Figurative Language (Dobrovol'skij and Piirainen 2005), an elaborate classification of cultural domains as they are manifest in modern languages was developed. At present, the question whether formulaic patterns in historical texts are founded on the same source domains (texts, knowledge types) remains unanswered. There is also little knowledge available about the historical target domains that are predominantly verbalised with the help of formulaic patterns. Furthermore, the question still remains as to the impact of historical text / discourse traditions (Coseriu 1988; Blank 1997; Koch 1997) on the emergence of formulaic patterns. This impact can be observed in the development not only of idioms and proverbs but of any type of formulaic patterns. It reduces the role of another driving force of any language change, namely frequency of use. Theories of language change (morphological, typological, lexical and semantic) stress the pivotal role of frequency in any process of emergence of novel items. It is a well-known fact that in the process of lexicon expansion, for example, a sporadic innovation only has a chance to enter into the lexicon if it is supported by a sufficient number of speakers, i.e. if the item is frequently used by them in a new form and / or meaning and function. It is clear that the emergence of formulaic patterns involves frequency. However, another fact has to be taken into account as well: Formulaic patterns are constitutive elements of human communication only with regard to their type frequency; by contrast, their token frequency is generally low. In other words: a certain degree of formulaicity can be attested to absolutely any written text or oral communicative act because any of these sources contain different types of formulaic patterns (*type frequency*). The problem is that each type might occur only once (*token frequency*).

What seems to be a crucial factor for lexicon expansion through formulaic patterns is not so much just the frequent use of a pattern but its frequent use in a specific communication situation or in a specific (cultural) text / discourse tradition. This observation corresponds to the feature e) in the definition of formulaic patterns in section 1. The link between a formulaic pattern and a context ensures that speakers resort to appropriate (even the most irregular!) units in relevant situations. Evidence for such links has already been provided from different research perspectives and various modern languages, most recently within the fine-grained concept of construction discourse and the notion of discourse patterns in Östman (2005, 2015). Feilke (1994: 226) notes that the German formulaic

14 One of the first studies of this kind is Geeraerts and Grondelaers (1995).

pattern (10a) is determined by and strongly bound to a formal festive act of celebrating something joyful and cannot be used in a formal funeral ceremony. The pattern is a substantial part of both linguistic knowledge of German native speakers and their general world knowledge about festive acts. The non-conventional variants (10b) and (10c) will not evoke the same knowledge structures as they are – at least at present – neither lexicon entries nor part of the world knowledge.

(10) a. *Ich erhebe mein Glas* [...]
lit. "I raise my glass to X"
b. **Wir erheben unsere Sektgläser*
lit. "we raise our champagne glasses"
c. **Ich erhebe meinen Krug*
lit. "I raise my jar / jug / pitcher / mug"
(Feilke 1994: 226)

Similar ideas based on English data are expressed by Wray (2009: 36) and Wray and Perkins (2000: 7):

> However, it may be premature to judge frequency as a *defining* feature of formulaicity. It has yet to be established that commonness of occurrence is more than a circumstantial associate. There are certainly many formulaic sequences whose culturally-based familiarity belies their comparative rarity in real text (e.g. *That's another fine mess you've gotten me into*; *Time for bed*, *said Zebedee*; *Here's one I made earlier*) (Wray 2009: 36).[15]

Though frequency is discussed here with regard to its role as a defining feature of formulaic patterns in modern English, the data from Old German in Filatkina (forthcoming) allows for a similar observation in the case of emerging formulaic patterns in language history.

Frequency seems to be a less important factor even in the most recent instances of the development of formulaic patterns. Before 2015, example (11a) could have been considered a completely unmarked routine formulation formed in accordance with the rules of German grammar. But on 31 August 2015, it was used by Chancellor Angela Merkel in her speech during the press conference for the German mass media (*Bundespressekonferenz*) in order to confirm her refugee policy and to appeal to the German population to support the integration of refugees. The pattern is the concluding part of a wider context as quoted in (11b).

15 Hoffmann (2004) questions the role of frequency in the grammaticalisation of complex prepositions such as *by dint of*, *in conformity with* etc. by drawing a distinction between conceptual and absolute frequency and taking into account the role of analogy.

(11) a. *Wir schaffen das!*
lit. "We will manage it!"
b. *Deutschland ist ein starkes Land. Das Motiv, mit dem wir an diese Dinge herangehen, muss sein: Wir haben so vieles geschafft – wir schaffen das!*
"Germany is a strong country. The motto with which we approach these things has to be: We have managed to do so much – we will manage this!"

Since then, the chancellor has repeated this statement only twice, at the CDU party congress on December 14th 2015 and during her New Year's address to the nation. But the pattern has been more widely cited in the mass media, has initiated a controversial debate about refugee policy and advanced to a key slogan of a new culture of welcome in Germany. It is deeply embedded in the refugee discourse and changes its pragmatic connotation because of this functional strength. As Kreuz and Stumpf (forthcoming) show, most recently the pattern is also used in comics, caricatures and memes that are no longer restricted to the refugee discourse and has become variable with regard to its form, meaning and function. However, the crucial factor in the emergence of this formulaic pattern is not the frequency of use as such but its origin in the refugee discourse and the acute and controversially discussed importance of this discourse for German political and everyday life.[16]

For historical times, frequency presents even more far-reaching (methodological) consequences. When studying the historical dynamics of lexicon expansion through formulaic patterns, not only the low token-frequency of single patterns has to be accounted for.[17] The sporadic, fragmentary and often incomplete records of written texts add to the problem. As was mentioned with regard to the German example (2) *Perlen vor die Säue werfen*, it occurs in historical texts only 33 times, showing a high degree of variation at all levels. But it also contains the noun constituent *Säue* that is completely stable even in modern German though less frequent in the free, non-formulaic usage. Text corpora provide hardly any evidence for its substitution by the more frequent lexeme *Schweine*. The use of the constituent *Säue* in place of *Schweine* must be attested to the use of precisely this constituent by Martin Luther in his translation of the Bible. In my eyes, the

16 In my view, the emerging English patterns *Make America great again, fake news* or the older *war on terror* are undergoing similar discourse changes.

17 This is why the decision as to the formulaic character of a certain unit often cannot be made on the basis of one language alone. The cross-linguistic approach becomes an essential method of historical analysis, determining even the decision-making at the core level of definitions. In other words, the existence of a certain formulaic pattern in different historical languages can be considered additional evidence for its formulaic character in the language under investigation (Filatkina, Münch, and Kleine-Engel 2012).

strong involvement with cultural traditions also has to be taken into account in the emergence of the non-frequent formulaic patterns (5b) *bei jemandem ins Fettnäpfchen treten* "to step in a little dish of fat" and (8) *etwas auf dem Kerbholz haben* "to have something on a tally". Despite not being frequent, they are highly lexicalised, opaque with regard to the underlying cultural knowledge and contain the irregular (i.e. obsolete) constituents *Fettnäpfchen* and *Kerbholz*. Therefore, in contrast to morphological or lexical irregularity that can arise through frequent use (e.g. suppletive verb forms), frequency does not necessarily explain formulaic irregularity as (token-wise) formulaic patterns are seldom extremely frequent units.

4 Conclusion

Bearing in mind the aspects analysed, we can conclude that formulaic patterns have to be considered important tools of lexicon expansion both in language history and in present times. As they share a naming function (among others) with, for instance, word-formations, they can contribute to this research field in the same way as the latter do. Formulaic patterns are by no means just a storage area waiting to be recruited into sentence generation but a part of non-static knowledge. Being formulaic does not imply lack of variation or change. From a diachronic point of view, any formulaic pattern undergoes complex variation processes not only with regard to form and meaning but also with regard to all other aspects of pattern use. From a synchronic point of view, variation can even serve as an indicator of a high degree of conventionalisation when established patterns are opened up for variation and (playful) modification by language speakers. Since utterances that can be considered formulaic are extremely heterogeneous in nature, explanations pointing out single factors of their emergence appear to be inconsistent. The emergence of formulaic patterns can best be understood as a process of integration of sometimes controversial aspects, among which frequency and regularity seem to be important accompanying factors but not always driving forces. Irregular, idiosyncratic paths based on conflicts and violation of norms shape the development of formulaicity as well if they are sufficiently supported by the speakers' / hearers' communicative needs and / or embedded into discourse and cultural traditions. Formulaic patterns therefore provide ample proof of the need for comprehensive theories treating language as an entire adaptive system built upon integration and interaction of cognition, culture and discourse.

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